

AUDIT REPORT

Procurement and Supply Chain during the COVID-19 pandemic

GF-OIG-21-016 6 December 2021 Geneva, Switzerland



What is the Office of the Inspector General?

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

The OIG is an independent yet integral part of the Global Fund. It is accountable to the Board through its Audit and Finance Committee and serves the interests of all Global Fund stakeholders.

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1.1 Opinion

In 2020, the COVID-19 pandemic placed significant pressure on the Global Fund's Pooled Procurement Mechanism (PPM) which supports participating grant implementers in procuring between 40% and 60% of health products. The Global Fund's Supply Operations Department overcame many of the significant operational and logistical challenges resulting from the pandemic, minimizing disruptions to health commodity flows and effectively managing the material identified risks.

Inherent limitations affected the PPM's ability to achieve further efficiencies and effectiveness. For example, annual quantification and forecasts for anti-retroviral drugs (ARVs) are typically 25% lower than actual procurements; this creates procurement inefficiencies, as scheduling production and logistics are based on reduced quantification. The majority of long-lasting insecticidal nets procured through PPM are estimated to cost more than procurements made directly by countries, while 59% of non-PPM procurements of ARVs are estimated to cost more than PPM negotiated reference prices, despite extended negotiations with suppliers on agreed competitive market terms. The benefits and drawbacks of the current performance reporting methodology need to be revisited.

Delayed deliveries remain a challenge and create a risk of stock-outs, and some recurring issues with suppliers have not yet been resolved. A shift to a smaller number of suppliers risks not achieving the intended market shaping impact. The measures put in place by the Secretariat to ensure an effective and efficient flow of health commodities to countries during COVID-19 are rated as **partially effective**.

Key controls to oversee and monitor health product availability in procurement and supply chains during the pandemic are rated as **partially effective.** Monitoring of in-country availability of health products has been limited in coverage, quality, and depth of information. The Secretariat is revising its monitoring approach toward a more holistic view of in-country supply chains.

1.2 Key Achievements and Good Practices

Disruptions to procurement processes and supply chains were minimized

During 2021, the Supply Operations Department took appropriate steps to reduce COVID's impact on procurement activities and to secure the continued availability of health products, by increasing communications and engagement with suppliers and Procurement Service Agents, monitoring performance, and when necessary, changing suppliers. The organization strengthened its technical advisory partnerships with the International Federation of the Red Cross and Red Crescent, US Agency for International Development/President's Malaria Initiative (USAID/PMI), United Nations Children's Fund (UNICEF) and others, which helped in the completion of 24 mass distribution Long-Lasting Insecticidal Net (LLIN) campaigns.

Communication protocols were enhanced with large-scale procurement partners such as PMI and UNICEF to harmonize and prioritize orders from the same suppliers; this helped to ensure donor equality when prioritizing orders with suppliers. The Secretariat also introduced Quality Assurance (QA) flexibilities, allowing suppliers to ship commodities while awaiting QA results. Waivers for Indoor Residual Spray products and two LLIN products were approved to meet urgent needs. As of May 2021, the PPM expanded to include Personal Protective Equipment (PPE) and COVID-19 diagnostics, as well as partnering with UNICEF to source oxygen products.

Effective risk management for identified procurement and supply chain risks

Supply Operations introduced a series of mitigation measures to manage identified risks, such as for orders that required adjustments or where Principal Recipient (PR) orders could not be processed on time, and in order to secure supplies from manufacturers. PRs were given a deadline to submit orders for delivery in 2020, which helped to reduce the number of late orders. The delivery deadline was extended from 90 days to 180 days past the end of the current implementation period, and weekly supplier/logistics scorecards were issued. Situation updates and Health Product Supply updates were posted regularly on the Global Fund website.

1.3 Key Issues and Risks

Further improvements needed to quantification and forecasting, delivery lead times and KPI reporting

Quantification and forecasting estimates in 2020 were significantly lower than actual orders placed: anti-retroviral drugs (ARVs) were 25% lower compared to 2019, LLINs 29% lower, and malaria rapid diagnostic tests (mRDTs) were 53% lower. This may have affected Supply Operations' ability to obtain better terms from suppliers.

Longer-than-usual procurement lead times are increasing the risk of stock-outs, and several recurrent issues are contributing to delivery delays. A number of challenges need to be addressed in order to improve delivery lead times, such as incorrect or incomplete requests and classifications, and the need for a better mechanism to identify and address the root causes behind delays.

The Key Performance Indicator (KPI12b)¹ reported by the Supply Operations Department to the Board could provide a more precise picture of the PPM's achievements and challenges through a definite calculation methodology.

The lack of price monitoring and a concentration of suppliers are hindering the achievement of further efficiencies

Principal Recipients are required to report grant-funded purchases of key pharmaceutical and health products into the Global Fund's online Price and Quality Reporting system (PQR)²; we noted however that compliance with this requirement is limited. For example, of the estimated total of US\$145 million non-PPM procurements of ARVs in 2019, only US\$30 million was reported in the PQR (21% compliance).

Furthermore, the design limitations of the PQR, including the required level of granularity as well as the product specifications, terms and conditions, coupled with reporting non-compliance, make it difficult to compare PPM and non-PPM procurements. These limitations have resulted in 2019 and 2020 data for non-PPM procurements being largely underreported and unverified, while the verified data show incorrect unit costs. Acknowledging these limitations and the fact that PQR is the only tool available to compare PPM and non-PPM procurements, we found that 97% of non-PPM LLIN procurements were procured below the Weighted Average Price (WAP)³ paid by the PPM, generating an estimated price difference of US\$52 million for 92 million LLINs procured in 2019 and 2020 and registered in the PQR system. However for non-PPM ARV procurements, 67% of countries overpaid the WAP by 6%, equating to US1.2 million of estimated additional costs; this is despite PRs being able to use the negotiated prices agreed by Supply Operations with major suppliers.⁴

The Global Fund's Market Shaping Strategy⁵ requires the existence of a wide range of suppliers. While this is factored into initial allocations, actual procurement volumes are allocated when PRs place purchase orders. Depending on the demand and supply situation at the time, this has led to disproportionate allocations among suppliers, creating the risk of not fully leveraging the entire supply base and becoming dependent on a few suppliers over time.

Limited visibility over in-country stock levels

To monitor product availability, the Secretariat performs remote on-shelf availability checks at health facilities, while Country Teams rely on a combination of PRs' progress update/disbursement requests, special reviews by Local Fund Agents, and engagement with in-country stakeholders. These different monitoring mechanisms address different objectives, such as quarterly KPI reporting at Secretariat level or responding to grant specific risks at

¹ Annual savings achieved through PPM on total cost of product delivery (including product cost, procurement agency fees, freight, and logistics cost) on a defined set of key products (mature and new)

² Price and Quality Reporting is a publicly accessible online database that collects and displays data on procurement transactions made by Global Fundsupported programs.

³ A weighted Average Price (WAP) was calculated on procured volumes. As PQR data are a mix of INCO terms product prices compared with PPMs (Ex Works) in our analysis, we considered the effect of the other terms (CIP, CIF, FOB, DAP etc.).

⁴ The highlighted savings estimates used are indicative only, due to limitations in the PQR.

⁵ Market Shaping Strategy (2016-2021) defines how the Global Fund's partnerships can contribute to health outcomes, facilitating stronger global markets for health products by maximizing access and improving outcomes for people affected by disease. To deliver this, the Global Fund uses initiatives and tools aimed at increasing access to health products, including the Pooled Procurement Mechanism and wambo.org.

country level. A combination of COVID-19 disruptions, a siloed approach to using and maintaining data, and design limitations within the Secretariat's different monitoring mechanisms have limited the visibility of health products in countries during the pandemic.

The Secretariat is aware of these gaps, and is revising its monitoring approaches to produce a more holistic view of in-country supply chains. Activities to improve data collection and reporting started in the fourth quarter of 2021.

1.4 Objectives, Ratings, and Scope

The audit's overall objective was to review the adequacy and effectiveness of measures to maintain health product availability despite COVID-19 disruptions. Specifically, the OIG assessed:

Objective	Rating	Scope
Measures put in place by the Global Fund Secretariat to ensure an effective and efficient flow of health commodities to countries during COVID-19.	Partially effective	Audit period: January 2019- December 2020 Scope: The audit reviewed: • measures implemented at the Secretariat and at the country level in terms of procurement support, operational guidance
Key procurement and supply chain controls to oversee and monitor health product availability during the pandemic.	Partially effective	 technical assistance and leveraging partner support. This adaptions to minimize disruptions in flows of health products to countries. monitoring approaches at the Secretariat to assess the performance and compliance of the procurement supply agents and of other suppliers. controls in place to monitor health products at the peripheral level through the in-country monitoring conducted by Sourcing and Supply Chain department. Because of pandemic related travel and other restrictions, the OIG did not review in-country supply chain controls beyond the receipt of goods at the central warehouse. To provide assurance over these areas, OIG country audits in 2021 will review, where appropriate, controls in place from the central warehouse to the end beneficiaries.

2.1 Overall Context

The Global Fund's fight against HIV, tuberculosis and malaria depends on ensuring that countries and communities have timely access to quality, life-saving health products at a reasonable cost. Efficient and effective Procurement and Supply-Chain Management (PSM) is key to achieving this goal.

Global Fund procurement activities are governed by the Board's 2008 Procurement Policy, which sets out the general principles that govern the procurement of goods and services by, or on behalf of, the Global Fund. Procurement expenditure is split into:

- health products on behalf of countries through the Pooled Procurement Mechanism;
- operational expenditure (OPEX) procurement, such as Local Fund Agents, professional fees, communications, and office infrastructure;
- grant-related procurement such as fiscal agents, external audits or vehicles; and
- procurements for Strategic Initiatives.

2.2 Market Shaping Strategy

The Global Fund aims to play an active, deliberate, and strategic role in shaping global markets for HIV, tuberculosis, and malaria products, in order to maximize access and improve outcomes for people affected by these diseases. The Board-approved Market Shaping Strategy (2016-2021) defines how partnership can contribute to health outcomes by influencing global health product markets. It sets out the following target goals:

- ensuring continued availability and affordability
- promoting consistent quality standards
- supporting efforts to stimulate innovation
- accelerating the adoption of new and/or cost-effective products
- preparing for country transition and long-term market viability
- strengthening key foundational elements for market shaping

2.3 Pooled Procurement Mechanism (PPM)

Between 40% and 60% of Global Fund grant funding goes toward purchasing health products. Of this, approximately US\$1 billion is channeled through the PPM, which consolidates health procurements across grants and which by 2018 was being used by 63 countries.⁶ The PPM aims to:

- provide access to competitive market terms and prices, no matter the order's size or value
- eliminate procurement delays due to complicated tendering processes
- support timely grant expenditure; and
- ensure that quality assured goods and medicines reach those most in need in a timely manner

⁶ Sourcing & Management of Health Products – TheGlobalfund.org

3. Findings

3.1 Enhancements are needed in demand management, health commodity delivery lead times, and performance reporting

Better quantification and forecasting are needed to improve the timely delivery of health commodities. Performance reporting to the Board needs to be revisited to ensure that the methodology used provides a more comprehensive picture of savings achieved.

Faced with COVID-related logistical and operational challenges including closed borders, disrupted shipping, lockdowns and closed factories, the Secretariat adopted several mitigation arrangements to maintain the flow of affordable, quality health products to countries and to secure the continued availability of health products, including increasing communications and engagement with suppliers and Procurement Service Agents. Additional measures were introduced to improve the timely delivery of health commodities, including setting a strict set April 2020 deadline for 2020 orders.⁷ This helped suppliers to prepare production capacity based on clear demand. The amount of Principal Recipient purchase orders placed through PPM/Wambo⁸ increased from 46% in 2019 to 53% in 2020.

Sub-optimal quantification and forecasting are preventing further efficiencies

Principal Recipients quantify and forecast health products with the support of Country Teams, and report to the Supply Operations Department using the Heath Product Management Tool. Since the current NFM3 grant cycle launched in January 2021, individual Health Product Management Tools have been consolidated in an aggregation tool accessible to Supply Operations. Once compiled across all grants, it is used as a key input for the total demand of grant commodities. However, procurement volumes often differ significantly from the initial estimated demand. For example, in 2019 and 2020, 25%⁹ more ARVs were procured through the PPM than forecasted (at additional estimated cost of US\$101 million and US\$98 million respectively).

For Long-Lasting Insecticidal Nets (LLINs), there was immaterial variation between initial and actual demand in 2019, but in 2020, 29% more LLINs were procured than forecasted (at additional cost of US\$61 million) due to unanticipated demand for more expensive PBO¹⁰ nets. The sharp increase in PBO nets demand resulted from more country-specific insecticide resistance level data and impact modeling data becoming available, supporting the justification for PBO nets. For mRDTs, 2020 procurement volumes were 53% higher than forecasted, at an additional cost of US\$32 million.

A few factors are behind these deviations. Supply Operations' three-year tenders being based on aggregated initial forecasts, however countries can find it challenging to make accurate forecasts for the full grant period.¹¹ There is a lack of programmatic consideration in the forecast, such as anticipated change in treatments¹² and programmatic gaps not being covered by the available funds at the grant negotiation stage. In 2020, LLIN demand was projected to be 75 million, while the actual volume procured was 96 million.

Better management processes and supporting tools would help Supply Operations negotiate better terms (including volume discounts), make better commitments to suppliers¹³ and improve production schedules. This could shorten delivery times and improve logistics by using more cost-efficient methods such as bulk shipping. This issue was previously raised in OIG's audit of Internal Financial Controls (GF-OIG-21-003), where actions to address AMA 2 are ongoing.

Long lead times for health product procurements increase the risk of stock-outs

The lead time of a standard procurement order takes on average eight months, against a six-month target. The Supply Operations Department's quarterly and annual reviews reveal recurring issues, such as charging above-reference

⁷ PRs previously submitted requests at any time and selected a 'need-by date'. This was difficult to fulfill or harmonize between PRs using PPM.

⁸ Wambo.org is the Global Fund's online procurement platform

⁹ At the product level the variances are between -34% and 167% for first-line adult formulations and between -14% and 366% for pediatric formulations. ¹⁰ Bed nets treated with pyrethroid insecticides are an effective way to reduce malaria transmission. With mosquitoes now developing resistance to this type of

insecticide, one solution is to add piperonyl butoxide (PBO) to the net, which blocks the substance inside the mosquito that stops pyrethroids from working.

¹¹ Several sampled countries did not have sufficient records to justify forecast numbers, making it difficult to analyse the possible causes for additional demand. ¹² 2017 WHO recommendation to transition 1st-line ART clients from TLE to TLD regimen. Countries w/o required TA are slower, would benefit from CT guidance.

¹³ In 2020, 5 suppliers received committed procurement of 21 M ARVs, representing 38% of actual procurement from them or <28% of the total actual procurement. 6 December 2021

prices, regulatory issues, production delays and inability to supply certain commodities, which delay delivery lead times. While Supply Operations can address some of these challenges, others such as in-country clearance and logistics are beyond their control, and will require more strategic and sustainable solutions.

The average lead time for urgent orders¹⁴ is between seven and eight months, as opposed to a 90-day target. The main reason for delay is the lack of clarity among PRs about the purpose of "urgent orders" in Wambo which leads to overuse. This overuse has caused additional delays; as suppliers had previously arranged to handle a limited number of urgent requests, some were converted to normal procurement orders following a review by Supply Operations.

The Supply Operations department plans to identify and address the root causes behind delays through monitoring late orders within the grant lifecycle, and delivery slippage after grant-end dates. However, the process relies on information from Procurement Service Agents (PSAs), which in some instances has been noted to be inaccurate or incomplete. For example, we noted instances where the delivery date or the Purchase Order (PO) were not indicated by the PSA, and other instances where name of the supplier differed between the PO and Wambo making it difficult for the SO department to identify the delayed deliveries

Supply Operations is also reviewing what can be achieved from the Rapid Supply Mechanism (RSM)¹⁵, which utilizes available inventory in standard packaging, and simplifies the approval mechanism for invoicing and payment. Our sample showed that in 2020, the average lead time for RSM was three months. The main challenge for scaling up RSM use is its dependence on prearranged available stock with suppliers. This requires the Secretariat's pre-commitment, which largely depends on better forecasting.

Reporting and measuring the Supply Operations Department's performance against the market shaping strategy

A Global Fund Key Performance Indicator (KPI 12b) tracks and reports on the availability and affordability of essential products by measuring annual PPM savings on the total cost of delivered products. The approved methodology allows several options in order to calculate this indicator.¹⁶

In 2020, Supply Operations used annual results to calculate the savings made on mRDTs and LLINs, revealing negative savings. For ARVs, SO department used the cumulative WAP between January 2015 and June 2018 to calculate the savings of US\$231 million (exceeding the target by 88%); while this is in line with the approved methodology, If the annual results were used to calculate the ARVs, the savings would have been approximately US\$15 million.

Using different methods and timelines to report on annual savings may provide an inaccurate picture of Supply Operation's achievements, hindering the Board from taking appropriate decisions or making future plans.

Agreed Management Action 1:

The Secretariat will elaborate an implementation plan to i) reduce procurement and supply lead times, including identifying key up and downstream levers to achieve this; and ii) strengthen PSA reporting, including improving completeness, accuracy, and standardization of information reported.

OWNER: Head of Sourcing and Supply Chain Department

DUE DATE: 31 December 2022

Agreed Management Action 2:

The Supply Operations Department, through the comprehensive M&E Framework development process underway for the post-2022 GF Strategy, with input from external technical experts, will introduce to the Board a set of KPIs to monitor progress of the NextGen Market Shaping approach.

OWNER: Head of Sourcing and Supply Chain Department

DUE DATE: 30 June 2022

¹⁴ An urgent procurement is a contingent option for countries to use in case of emergencies. These orders are prioritized by PPM team to reduce delivery times. ¹⁵ The RSM is an approach that has been agreed with selected suppliers to help mitigate against the risk of stock-outs of certain health products. Through agreements with selected suppliers, suppliers implement Vendor Managed Inventory (VMI) of certain health products to permit increased responsiveness and reduced delivery times compared to the standard order process.

¹⁶ Baseline price dependent on product maturity: Weighted average price during the previous contract/period, announced lowest market entry price, Spend avoidance, etc. further details available in "Guidelines for sourcing and procurement Savings Reporting"

Wide price variances and the concentration of purchases among a few suppliers are hindering Market Shaping Strategy objectives

Variances between PPM and non-PPM prices are leading to potential inefficiencies. A lack of proactive market monitoring and concentration amongst a few suppliers increases the possibility of the Global Fund's market shaping strategy goals not being met.

The Supply Operations Department is implementing several measures to achieve the objectives defined by the Market Shaping Strategy (see Section 2.2). These include continuous negotiations with suppliers, procurement commitments, and signing framework agreements to secure good procurement conditions. All of these require a sufficient and balanced range of suppliers. Various challenges, however, limit the effectiveness of Supply Operations' efforts.

Wide variations in purchase prices are hindering the achievement of further efficiencies

3.2

One of Supply Operations' main goals is to support market sustainability through the continued availability of affordable health commodities. The currently available tool used by Supply Operations to evaluate the effectiveness and efficiency of the PPM procurements is the Price and Quality Report (PQR). There are limitations when using PQR for comparisons, including data completeness, accuracy, and comparability. For example, PQR does not require non-PPM procurements to be separated from delivery costs or state package sizes. 2019 and 2020 data for non-PPM procurements are also largely underreported and unverified, while the verified data show incorrect unit costs. There is also a time lag in uploading data.

Acknowledging the above limitations and that PQRs are the only available source, making it difficult to compare costs between PPM and non-PPM procurements, our analysis of procurement data for 2019 and 2020 noted that purchase prices from the same suppliers differ considerably for both PPM and non-PPM procurements, although both use Global Fund resources. For example, 97% of country procurements of LLINs and 33% of ARVs were made at lower than the PPM Weighted Average Price (WAP), generating an estimated price difference of US\$52 million for 92 million LLINS procured in 2019 and 2020 and registered in PQR system and US\$420,000 respectively. PPM uses a protective measure to insure against overpaying for health commodities: a price-matching clause in framework agreements requires suppliers to disclose if they offer a better price to others. However, Supply Operations would have more market visibility, and opportunities for spotting efficiencies, through proactive measures such as monitoring non-PPM procurement.

The Supply Operations Department and major suppliers agreed to extend negotiated prices to Global Fund Principal Recipients for non-PPM procurements. However, 2019 PQR data show that 67% of countries paid more for ARV procurement than the PPM's WAP¹⁷ by on average 6% (approximately US\$1.2 million), meaning countries are not taking advantage of the negotiated prices.

The increasing concentration among a small number of suppliers may create dependencies

Supply Operations has made noticeable progress in recent years to diversify and expand the number of contracted suppliers. For example, in 2016 approximately 56% of procurements of ARVs were through one supplier; this had reduced to 33% by 2020.

Initial allocations to suppliers are based on a commercial/technical combined score, factoring in the supplier's capacity and orders pipeline. For Anti-Retroviral Treatments (ART), LLIN and Malaria Rapid Diagnostic Tests (mRDTs) products, Supply Operations has onboarded a sufficient number of suppliers. Deviating from this approach during actual procurement creates the risk of procurement concentration within a limited number of suppliers, a risk which materialized during the COVID pandemic.

¹⁷ A weighted Average Price (WAP) was calculated on procured volumes. As PQR data are a mix of INCO terms product prices compared with PPMs (Ex Works) in our analysis, we considered the effect of the other terms (CIP, CIF, FOB, DAP etc.).

Regarding mRDTs, the market has traditionally been driven by country preference through national testing algorithms or training provided, making countries reliant on specific products from specific suppliers. In 2019, the Global Fund diversified the supplier base by launching a complementary procurement process and selected five additional suppliers to ensure timely sourcing and delivery of mRDTs. This was made possible by an initiative in collaboration with TAP and USAID/PMI to change the mRDT procurement policy in November 2019. While this procurement policy has changed the market dynamics, most procurements remain concentrated with one supplier.

During the COVID pandemic, this supplier stopped producing mRDTs, while another large supplier had product quality issues and could no longer supply. This caused a supply gap of 38 million tests. To address this gap, the Global Fund diversified the supplier base by launching a complementary procurement process, selecting four additional suppliers to source and deliver mRDTs. Combined with a sub-optimal initial allocation between suppliers, this forced the Global Fund to make emergency procurements at a higher price.

For ARTs, since 2016, Supply Operations has aimed to increase the supplier base for key products and to ensure sustainable and secure supply. Industry-specific entry barriers, however, require dedicated financial commitment and prioritization to address.¹⁸ Spreading allocated volumes over a greater number of suppliers is expected to continue over time; however, the specific time required will heavily depend on suppliers' ability and commitment to overcome the entry barriers described above.

As a result, there is still the risk of the concentration of ART and LLIN procurements among a few suppliers, with supplier capacity and production delays contributing to material adjustments of initial allocations. In 2020, 90% of ART procurements were concentrated among five major suppliers, each averaging double their initially allocated volume. Similarly, for LLINs, only five of 11 suppliers in the negotiated framework were producing PBO nets, with one having its initial allocation increased more than four times, indicating the need to examine the allocation criteria in view of maximizing market shaping impact.

Agreed Management Action 3:

- i. The Supply Operations Department will work with the Grant Management Division to establish a policy requiring the countries seek the support and guidance from the Supply Operations Department to ensure best value for money procurement in view of lead time, quality assurance, pricing and stewardship.
- ii. The Secretariat will update the related processes and tools to permit improved visibility across all GF-funded core health product procurement, including PPM and non-PPM

OWNER: Head of Sourcing and Supply Chain Department DUE DATE: 31 December 2022

Agreed Management Action 4:

The Supply Operations Department will identify the factors affecting the procurement reallocation and enhance mitigation measures to address them to better support the SO strategic plan to expand the supplier base.

OWNER: Head of Sourcing and Supply Chain Department DUE DATE: 31 December 2022

¹⁸ Such as development costs and production investment, regulatory approval timelines (2-3 years) & anticipating WHO recommendations (which change over time)

3.3 Limited visibility over in-country stock levels, although initiatives to enhance supply chain monitoring are under way

The approaches used to monitor in-country health product availability during the pandemic are limited in coverage, quality and availability of information. The Secretariat is currently revising its monitoring approach to obtain a more holistic view of in-country supply chains.

Prior to the COVID-19 pandemic, the Secretariat monitored health product availability through on-shelf (OSA)¹⁹ checks at health facilities. OSAs take place quarterly and inform the Secretariat's reporting on KPI 6b²⁰ (strengthen systems for health – supply chain). At grant level, Global Fund Country Teams rely on a combination of Principal Recipients' Progress Update/Disbursement Requests (PU/DR)²¹, special reviews by Local Fund Agents (LFAs), and engagement with relevant in-country stakeholders to monitor availability.

During the pandemic, the Secretariat adopted a remote review methodology for OSA monitoring, and introduced new mechanisms to monitor product availability, such as a COVID-19 Country Monitoring Tool, launched in Q2 of 2020 and covering 106 countries. In Q4 of 2020, the Secretariat launched spot checks to check essential service continuity at health facilities in 38 countries.²² Consolidated results are used for both internal and external reporting.

A combination of COVID-19 disruptions and a siloed approach to running and maintaining the data, along with design limitations, have however limited the visibility of health products in countries.

Limited coverage due to inherent design limitations

OSA monitoring covers a cohort of 16 countries, with certain countries only reporting on specific diseases²³ based on their national context. Programmatic spot checks are limited to 15 health facilities per country, meaning results cannot accurately be extrapolated across an entire country. In contrast, the COVID-19 Monitoring Tool only tracks stock availability at national/central level, and does not provide a simultaneous view of availability of essential medicines at health facility (service delivery) level.

Inability to triangulate results due to timing and coverage differences among monitoring mechanisms

OSA monitoring only focuses on selected tracer²⁴ commodity availability on the day of the visit, and does not provide insights on stock level adequacy. Programmatic spot checks go further by tracking amounts of stock available relative to minimum stock levels and consumption. However, limited programmatic spot checks (15 facilities per countries) mean the results cannot be triangulated with OSA results. Because the COVID-19 Monitoring Tool tracks national/central stock availability, while OSA and Programmatic spot checks track levels at health facilities, there is no cross analysis of availability at both levels.

COVID-19 disruptions have impacted the Global Fund's ability to collect and verify data

In its 2019 annual report, the OIG highlighted that one of the most significant supply chain management weaknesses over the years has been the lack of effective monitoring of drug and commodity inventories. Effective management of the large volume of commodities that Global Fund grants procure requires both strategic monitoring of long-term

 $^{\rm 24}$ Tracer commodities relate to HIV, TB and Malaria first line drugs and diagnostic tests

¹⁹ OSA is measured as a percentage of health facilities with tracer health products (HIV, TB & Malaria pharmaceuticals, and diagnostics) available on the day of the visit/data collection, or percentage of health facilities with tracer health products available as per LMIS reporting.

²⁰ This KPI measures the extent to which investments in strengthening the different components of health product management systems contribute to the uninterrupted availability of essential health products at service delivery points.

²¹ The Progress Update/Disbursement Request (PU/DR) is an MS Excel-based form completed by the PR to provide a progress update on the latest completed period of program implementation and a request for funds for the following execution and buffer period.

²² For both COVID-19 Monitoring Tools and programmatic spot checks, data is collected by LFAs using online questionnaires.

²³ OSA reporting is not required for all three diseases in the targeted countries. For example, of 16 countries only 13 report on Malaria health products; 14 on HIV diagnostics, and 15 are required to report on HIV first-line drugs and TB diagnostics.

trends (which On Shelf Availability does) and operational indicators that help anticipate and proactively mitigate risks of significant supply-chain disruptions in the short to medium term (which OSA does not do).

The Secretariat is aware of these gaps, and is revising its monitoring approaches to achieve a more holistic view of incountry supply chains. To complement and build on OSA monitoring and reporting, the Secretariat will monitor three additional Supply Chain KPIs: On-Time-In-Full (OTIF)²⁵, proportion of health products with stock levels according to plan (SATP)²⁶, and timeliness of health facility reporting to LMIS.²⁷ Coverage will be expanded from 16 to 45 countries. The revised methodology requires collecting health facility stock data, represented as months of stock, instead of simply focusing on the availability of selected tracer commodities on the day of the visit.

The Secretariat also plans to triangulate OSA results with other health facility assessment surveys or partner data, where available. OSA reporting will track the availability of COVID-19 health products at health facilities. In addition, consolidated monthly and quarterly reporting to the C19RM Investment Committee²⁸ and Board will be developed and analyzed through a cross-functional effort involving different Secretariat teams.²⁹

To implement these initiatives, the Secretariat plans to start data collection and reporting in the fourth quarter of 2021. At the grant level, four new Procurement and Supply Chain Management metrics³⁰ will be monitored to contribute to Principal Recipient performance ratings. This forms part of the Global Fund's planned revision of its approach to oversight of PR implementation. A pilot project to track PSM metrics will include 15 countries; data from the pilot will be collected and reported in a customized MS Excel template.

The pace at which the Secretariat was able to design and start implementing some of the above initiatives has been affected by Supply Operations leadership turnover and the COVID pandemic.

Going forward, the Global Fund plans to rely on LMIS reporting data. Physical verification will only be used as a last resort where LMIS reporting falls below acceptable quality levels, and there are no available stock reports. The Secretariat does not regularly measure the accuracy of LMIS reporting, which is important to ensure the quality of data monitoring. In the few instances where LMIS data accuracy was checked, accuracy levels were low; for instance, in two sampled countries, there was average accuracy of 59% when reported data was compared with source reports for selected health facilities.

Agreed Management Action 5:				
i.	The Secretariat will ensure that the ongoing initiatives to enhance monitoring of in-country supply chains are implemented in timely fashion as planned.			
ii.	For sustainability of ongoing monitoring initiatives and to ensure quality LMIS reporting data, the Secretariat will leverage available funding sources (including, but not limited to, the PSM Strategic Initiatives) to support the			

leverage available funding sources (including, but not limited to, the PSM Strategic Initiatives) to support the target cohort countries to improve the reporting rate and accuracy of data from LMIS reporting. Specifically, the Secretariat will assess the LMIS reporting capacity and needs of the target cohort countries.

OWNER: Head, Sourcing and Supply Chain Department DUE DATE: 30 April 2022

²⁵ OTIF measures the effectiveness of the in-country supply chain in delivering health products from the central warehouse to the next level of the supply chain.

²⁶ SATP assesses proper management of inventory for a list of tracer health products funded by the Global Fund grant based on central stock report.

²⁷ LMIS reporting rate measures the percentage of facilities submitting their LMIS reports to the receiving facility (national or disease level) on time.

²⁸ C19RM Investment Committee is responsible for strategic issues oversight and investment decision-making on C19RM funding. The Committee is chaired by the Chief Risk Officer.

²⁹ Cross-functional teams include representatives from the Risk department, The Supply Operations Department, Grant Management Division, Finance and Technical Advice and Partnerships and C19RM Secretariat.

³⁰ The new PSM metrics include Price Quality Reporting (PQR), timeliness and quality assurance compliance, annual quantification and forecast exercise timeliness, grant procurement planning performance, and proportion of tracer health products stocked according to plan.

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.

OIG audits are 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 focus on issues related to the impact of Global Fund investments, procurement and supply chain management, change management, and key financial and fiduciary controls.