



Independent observer  
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## SUPPLY CHAIN-RELATED CHALLENGES REPORTED IN EIGHT COUNTRIES FOR 2019–2020

In most countries, Global Fund grants are highly commoditized as the largest proportion of the grant investments are used to pay for health and non-health commodities. This means that the supply chain, together with procurement, absorb a significant proportion of grant funds. The extent to which countries handle these two areas is critical to achieving the Global Fund's mission. As countries plan for the next Global Fund's implementation cycle, it is important to look at systemic issues resulting in inefficient commodity management. A closer look at the Office of the Inspector General's (OIG) audit reports for 2019–2020 reveals that supply chain-related challenges is the fourth greatest issue plaguing Global Fund grants.

We covered the first and second issues plaguing Global Fund grants, which are gaps in oversight and assurance arrangements, and challenges in the design and implementation of interventions, in the [GFO \(Issue 387\)](#), published on 1 October 2020. We also covered the third issue plaguing Global Fund grants, which is data-related challenges, in the [GFO \(Issue 388\)](#), published on 21 October 2020.

We obtained information for this article from the OIG's audit of the grants for the years 2019 and 2020, and other publicly available documents.

### Countries with supply chain-related challenges

We focused on eight countries that the audit team of the OIG visited and found supply chain-related challenges. All these countries are in Africa (Table 1). The Global Fund classified five of these countries as 'high impact', as they are large Global Fund portfolios and have mission-critical disease burdens, while the remaining three are classified as 'core', as they have larger portfolios, higher disease burdens, and

are higher risk.

Of the eight countries, only the Democratic Republic of Congo is under the Additional Safeguard Policy (ASP), which involves additional measures to protect Global Fund investments. Three of these countries have an extremely high external risk index due to weak governance and human-made or natural disasters and are therefore classified as Challenging Operating Environments (COEs). In six of these countries, the Principal Recipients (PRs) were state agencies, such as government ministries and corporations.

Table 1: Characteristics of countries with supply chain-related challenges

No	Country	Region	Category	ASP	COE	Principal Recipient (PR)
1	Côte d'Ivoire	Africa	High Impact	No	No	Both state and non-state PRs
2	DRC	Africa	High Impact	Yes	Yes	Both state and non-state PRs
3	Ghana	Africa	High Impact	No	No	State PR
4	Liberia	Africa	Core	No	Yes	State PR
5	Malawi	Africa	High Impact	No	No	State PR
6	Sierra Leone	Africa	Core	No	Yes	State PR
7	Togo	Africa	Core	No	No	State PR
8	Uganda	Africa	High Impact	No	No	State PR

ASP – Additional Safeguards Policy; COE – Challenging Operating Environment

Source: Aidsplan, based on the OIG audit reports for 2019-2020

Note: DRC – the Democratic Republic of Congo; State PRs are government ministries or agencies while non-state PRs are non-governmental organizations

The main supply chain-related challenges reported in the eight countries were insufficient tracing of health commodities, stockouts and expired health commodities.

#### Insufficient tracing of health commodities

Tracing of health commodities involves tracking the movement of health products along the supply chain. It is important for three reasons. Besides increasing the supply chain visibility, it enhances quality control systems that reduce wastage and manage expired products. It also makes regulatory compliance easier to implement thereby reducing risk exposure. The OIG noted insufficient tracing of Global Fund-funded health commodities in four countries.

The OIG found that there was unsatisfactory tracking of health commodities at health facilities in [Côte d'Ivoire](#). There were inconsistent tallies of drug consumption and tested cases in some health facilities. For instance, the number of malaria rapid diagnostic tests exceeded the number of tests reported by 75 percent in eight of the 26 health facilities. In addition, anti-malaria drug consumption was double the number of reported tests in seven health facilities. Similarly, tuberculosis (TB) drug consumption was almost twice the number of TB cases in two of the 26 health facilities.

In [Malawi](#), tracking of health commodities at the district health office and health facility levels required improvement. Twenty four of the 25 health facilities had significant variances in the quantity of commodities supplied from the main store, the quantity consumed, and the quantity of those remaining on

the shelves.

In [Togo](#), there was poor tracking of medicines at health facility level, since significant proportions of drugs received from the district could not be accounted for. Specifically, seven of the 10 health facilities could not account for supplies received. Two of these facilities had no stock cards, the accounting record that documents the movement in and out of each commodity in a store, while the remaining five had stock cards. However, the audit team could only trace 32 percent of antimalarial medication in those health facilities.

In [Uganda](#), the tracking of malaria commodities required improvement. The audit team could not trace antimalarial drugs and malaria rapid test kits in 53 percent and 47 percent of health facilities, respectively. Also, only 28 percent and 50 percent of health facilities matched their consumption data for malaria rapid test kits and first line antimalarial drugs, respectively.

#### Stockouts and expired health commodities

The effectiveness of a supply chain can be determined by the availability of commodities at service delivery points. Stockouts and expired health commodities disrupt health service provision. The OIG found that there were stockouts and expired health commodities in five countries.

In [Liberia](#), out of the 25 health facilities, 20 had stockouts of key testing and treatment products for an average of 68, 76, and 177 days for HIV, malaria, and TB, respectively. This is despite the central warehouse having adequate stock of these commodities. Stockouts of key testing and treatment commodities led to service disruption. For instance, there were lost opportunities to test for HIV in 12 of the health facilities due to the unavailability of HIV test kits. Also, the OIG noted that Global Fund-funded commodities worth \$0.3 million had expired or was at risk of expiry in the next two to four months at the central warehouse. Also, nine of 25 health facilities had expired test kits.

In [Ghana](#), 12 of the 30 health facilities had stockouts of key commodities, lasting more than 30 days. About 87 percent of health facilities had stockouts of at least one malaria commodity, lasting more than 200 days. There were stockouts of HIV and TB commodities lasting 54 days and 33 days, respectively, in more than 70 percent of the health facilities. In addition, there were stockouts of GeneXpert cartridges averaging 62 days in 25 percent of the health facilities, despite the central and regional medical stores having stock which could last for three and 22 months, respectively. In addition to this, the warehouses and health facilities had expired drugs worth \$1 million.

In the [Democratic Republic of Congo](#), there were stockouts of HIV test kits and malaria health commodities at health facility level. Sixty percent of health facilities experienced stockouts of first line HIV test kits for about 45 days. Also, 41 percent of health facilities were out of stock of the first line antimalarial drug.

In [Sierra Leone](#), essential HIV commodities were out of stock for a period of between six to 210 days in all three medical stores. Eight of the 12 health facilities had expired HIV and TB drugs on shelves and all facilities lacked registers of expired commodities and any form of documentation to manage expiries.

In Uganda, there were stockouts of first line HIV screening tests for more than 30 days and HIV confirmatory test kits for at least 60 days, in 27 percent and 64 percent of the health facilities, respectively. Also, there were stockouts of anti-TB first line drugs in three of the 11 health facilities, lasting for an average of 35 days.

#### Other supply chain-related challenges

The OIG noted an inadequate laboratory supply chain in Liberia and a need to improve quality assurance

of medicines in Malawi.

### Inadequate laboratory supply chain

In Liberia, the OIG noted weaknesses in the storage, recording and distribution of laboratory-related equipment and commodities. Specifically, the country did not maintain records and stock tools for laboratory commodities. These contributed to stockouts of key laboratory commodities that led to poor diagnostic performance for TB and HIV programs. For instance, all facilities with GeneXpert technology had stockouts of cartridges contributing to the country missing TB notification targets.

### Quality assurance of medicines and health commodities require improvement

The Global Fund requires countries to perform in-country quality testing of medicines and health commodities. In Malawi, the OIG noted that the systematic in-country quality testing of medicines and health commodities require improvement. The country has been receiving support from the Global Fund to outsource quality testing to laboratories pre-qualified by the World Health Organization. However, the external providers' delays in testing medicines and the project implementation unit's delays in disbursing funds hampered the establishment of the country's quality-testing systems.

### Some systemic factors contribute to insufficient tracing, stockouts and expired health commodities

A lack of proper documentation practices is the main cause of limited tracing, stockouts, and expired health commodities. The lack of inventory management tools at central warehouses to track the movement of health products from one level to another leads to insufficient tracking of health products and stockouts. The lack of ownership and leadership at national levels is associated with weak inventory management.

Inadequate internal controls at the central level and inadequate supervision of the movement of health products from the national level down to health facility level are to blame for the insufficient tracing and stockouts of commodities. Also, limited use of logistics data for decision-making and poor storage conditions contributed to drug expiry.

Other factors are country specific. For instance, in Côte d'Ivoire the existence of an informal market for health products in Abidjan could have driven leakage, which contributed to the inconsistent tallies observed at health facility levels. In Sierra Leone, a misinterpretation of the HIV testing algorithm, the combination of at least two HIV tests and their sequence for confirming positive results, led to untimely procurement of key HIV drugs that led to their stockouts. Inadequate financing to the Democratic Republic of Congo's national strategy led to stockouts of HIV testing kits. The country's national testing strategy requires voluntary testing of the general population, but test kit quantification was based on the key population and patients at risk.

To address supply chain-related challenges, there is a need for countries to invest in inventory management tools with the necessary human resources to run them. Also, countries should build a culture of proper record keeping and enhance its supervision to track the movement of commodities down the supply chain. These approaches should be implemented as part of the broader scheme of building resilient and sustainable systems for health.

### Further reading

- [Audit reports for the 2019-2020](#) period can be accessed at the Global Fund's Audits & Investigations webpage

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