



Audit Report

Global Fund Grants in the People's Republic of Bangladesh

GF-OIG-17-027
22 December 2017
Geneva, Switzerland

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Audit Report

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1. Executive Summary

1.1. Opinion

The People's Republic of Bangladesh attained lower-middle-income status in 2016 but remains one of the poorest countries in the South-east Asia region. It is one of the Global Fund's 'high impact' countries (cf Section 2.2) with active grants of US\$117 million for the period July 2015 to December 2017. The country has experienced political unrest and severe flooding during the grant implementation period which have affected health care delivery and programmatic results.

The country has made significant progress in ending the three epidemics, especially malaria and tuberculosis (TB), with the support from the Global Fund and other partners. Four of the seven Global Fund grants (representing 64% in value) are implemented by international non-governmental organizations, mainly due to the weak capacity of the national programs. This has ensured, in the short term, that programme targets are consistently met and/ or exceeded. However, a longer term transition plan is needed to address the capacity and leadership challenges in the national programs to manage most of the grants.

Approximately 68% of Global Fund grants to Bangladesh are spent on procuring medicines and health products. There are significant weaknesses in the country's supply chain processes and systems, which affect the storage and distribution of medicines financed by the Global Fund. The Secretariat has instituted several measures, including parallel arrangements, to ensure that Global Fund-procured medicines are effectively distributed. Those measures have mitigated stock-outs at health facilities but the underlying systemic weaknesses continue to impact supply chain arrangements.

The non-governmental organizations have generally effective financial management controls to support activities financed by Global Fund grants. However, there are significant financial control weaknesses at the national TB program which is responsible for 27% of total grants in Bangladesh. This affects the Principal Recipient's ability to use and account for funds received from the Global Fund.

The implementation arrangements, procurement and supply chain and fiduciary controls for Global Fund grants in Bangladesh are therefore rated as **partially effective**.

1.2. Key Achievements and Good Practices

Good programmatic performance: The country has reduced the mortality of children under five, in line with the Millennium Development Goals (MDGs), and made significant progress towards the other health-related MDGs. Global Fund grants in the country have consistently achieved the agreed programmatic performance targets. For instance, the TB treatment success rate has been consistently above 90%. The country also explores innovative measures approved by the World Health Organization to prevent and manage TB cases. For example, Bangladesh has started implementing short course multi-drug resistant TB treatment to ensure effective treatment of cases. The agreed targets for prevention activities among key affected populations under the HIV grant have also been exceeded. There was a decline in malaria-related deaths from 588 in 2002 to nine deaths in 2015.¹ The country is working towards malaria elimination with 51 out of the 64 districts considered to be no malaria endemic areas.

The Bangladesh Country Coordinating Mechanism (CCM) provided regular oversight of the grants which supported achievement of the programs targets.

¹ Bangladesh Malaria Funding Request, 2018-2020 and Bangladesh National Strategic Plan for Malaria Elimination 2017- 2021

Increased government financial commitment to the three diseases: The government has been funding the procurement of all antiretroviral medicines and other HIV-related commodities² since 2012. Its contribution to the HIV and malaria programs is projected to increase by 50% and 30% respectively from 2017 – 2019. The government has also committed to procuring all first line TB medicines from 2018. These financial commitments enable donors to focus resources on other critical aspects of health care delivery.

Interventions are targeted at high risk and key populations: Global Fund investments are aligned to national strategies and plans. The interventions are strategically focused on relevant key populations that are affected by the HIV, TB and malaria epidemics in Bangladesh. For example, the malaria interventions target key populations such as refugees, ethnic groups living in hard-to-reach areas, high risk mobile populations and migrants in the 13 malaria endemic districts. There is a differentiated model of HIV care and prevention with drop-in centers available for the respective key populations in the 23 high priority districts. These centers provide access to information, resources and support services for these key affected population. This approach has increased access to HIV services in a country where stigma and discrimination are high.

Good community engagement in the implementation of grants: BRAC, the Principal Recipient responsible for most outreach activities under the TB grant, has extensive community-level structures which ensure direct contact with TB patients. More than 67,000 TB volunteers are mapped to specific communities to diagnose TB cases quickly, ensure treatment adherence and contact tracing. A similar arrangement has been designed for the malaria program with over 1,900 volunteers providing health care in the 13 high malaria endemic areas and hard-to-reach areas.

1.3. Key Issues and Risks

Low case detection could compromise gains made against TB if unaddressed. Preliminary findings from a country-wide TB prevalence survey in 2015/2016 indicated a rate of 62% of estimated incidence and 53% of estimated prevalence. A large proportion of case detections occur at advanced stages of the disease. The undetected cases may increase morbidity and contribute towards mortality if not addressed. Limited planning and use of diagnostic machines, as well as a limited private sector engagement in TB screening, contribute to low case detection. GeneXpert machine use was estimated at 35% in 2015 and 2016. Only 11% of reported TB cases in 2015 and 2016 were diagnosed using the machines. While 62% of patients in the country's recent prevalence survey sought health care from private health facilities, there are limited mechanisms to ensure that TB case notification is mandatory in those facilities. In 2014, the government made case notification in private health facilities mandatory, but this is yet to be systematically enforced.

More operational efficiency and value for money needed from current implementation arrangements. The implementation arrangements for Global Fund grants have been effective in achieving the agreed programmatic targets. However, the arrangements need to be rationalized as there are differences between the Global Fund and government funded HIV activities and cost variations between the two international non-governmental organizations responsible for the HIV grants.

Suboptimal coordination between implementers of Global Fund grants and the government's health sector development program results in duplications and overlaps in the location of drop-in centers which provide services to key affected populations. Some districts have more drop-in centers than required while other high priority districts have none.

There are significant cost variations between the two non-governmental organizations who implement Global Fund grants through the drop-in centers.³ Staff costs at the Principal Recipient with the smaller grant and fewer staff are 24% higher than the other implementer who receives more grant money and who has more employees. This results in differences in the cost of interventions.

² Cluster of differentiation and viral load kits.

³ These non-governmental organizations are Save the Children and International Center for Diarrhoeal Disease Research, Bangladesh

Both Principal Recipients test people for HIV but at different costs due to the varied approaches used. One implementer uses a whole-blood method at a cost of US\$5.49 per test while the other uses a serum method at US\$11.27 per test. The number of HIV tests financed by the grant could have been doubled if the whole-blood approach was used by all the implementers. The whole-blood approach has been confirmed by studies in Bangladesh to be cost efficient, with quality comparable to serum testing.⁴ The implementers have agreed to use the whole- blood in the next funding cycle to increase coverage of HIV testing services.

Need to progressively build the capacity of the national disease programs for long term transition from non-governmental organizations. Global Fund grants have been mostly implemented by non-governmental organizations for the past 12 years due to the capacity constraints of the national programs. Frequent changes in leadership at the national TB program has limited its ability to develop and implement capacity building plans. The line director with overall responsibility of the national programs has been changed seven times in the last two years. This instability in leadership has made it even more challenging for the Global Fund to work with the national programs on building capacity in the long term.

The Government has indicated that it intends to take over implementation of HIV care, support and treatment program from September 2017, but there are few transition arrangements in place. The ability of the public health facilities to provide the services is yet to be assessed. The staff required to manage and implement the interventions had not yet been recruited as of August 2017. People living with HIV may be at risk of not receiving adequate services if this planned transition is not properly managed.⁵

Gaps in supply chain systems continue to affect efficient and effective delivery of medicines and commodities. The Global Fund, with the Government and partners, finances a temporary central warehouse to store and distribute medicines. However, delays by the national TB program in clearing goods from the port; inadequate storage conditions at the central level; and gaps in the management of expired commodities affect the effectiveness of the supply chain system. The national TB program delayed port clearance of over 74% of TB medicine for more than 30 days in 2016 and 2017. This is turn delayed subsequent distribution. There is limited space available at the central level for the storage of medicines and commodities. These constraints are preventing effective reconciliation of incoming shipments, stock rotations, physical counts, temperature/humidity controls and effective implementation of the first-expired-first-out principle at the central level. A longer-term solution to good storage, warehouse management and distribution needs to be developed.

⁴<https://www.researchgate.net/publication/297591182> Operational feasibility of using whole blood in the rapid HIV testing algorithm of a resource-limited settings like Bangladesh

⁵ As of November 2017, 1,213 out of the 2,123 patients had received services

1.4. Rating

Objective 1. Effectiveness of the implementation arrangements to ensure efficient and sustainable achievement of grant objectives. OIG rating: Partially effective. The implementation arrangements have supported the consistent achievement of the agreed programmatic performance targets. However, challenges in TB case detection, routine monitoring of patients and potential inefficiencies need to be addressed.
Objective 2. Effectiveness and efficiency of the procurement and supply chain to ensure availability of quality assured medicines and health commodities to patients. OIG rating: Partially effective The Secretariat instituted several measures to ensure Global Fund procured medicines are effectively stored and distributed. Those measures mitigated stock-outs at health facilities but underlying systemic weaknesses continue to impact supply chain arrangements under the TB grants.
Objective 3. Design of the internal financial controls on incentive payments and apportionment of costs to Global Fund grants OIG rating: Partially effective. Internal financial controls are adequately designed, but a number of issues identified at the National TB Program affect the effective management of grant funds.

1.5. Summary of Agreed Management Actions

The Global Fund Secretariat will work with the national TB program to develop a plan to ensure effective utilization of existing and new GeneXpert machines, and implementation of revised and enhanced financial management systems in the TB program.

The Secretariat shall also work with the non governmental organization principal recipients to prepare a mapping of drop-in-centres, and develop a plan to move the medicines from the temporary warehouse to other storage facilities.

2. Background and Context

2.1. Overall Context

With an estimated population of 162 million at the end of 2016, Bangladesh has experienced economic growth and macroeconomic stability since the early 2000s. With estimated GDP per capita of US\$1,359, it grew by an average annual per capita rate of 7.1% in 2016.⁶ The country attained lower middle-income status in 2016. Sustained economic performance has helped to lift a significant proportion of the population above the national poverty line, although Bangladesh remains one of the poorest countries in the Southeast Asia region. Bangladesh is ranked 139th out of 188 countries in the UN Development Program's 2016 Human Development Index, and 145th out of 176 countries in the Transparency International's 2016 Corruption Perceptions Index.⁷

The country is divided into eight divisions including the capital and largest city, Dhaka, which is the political and economic center. The divisions are sub-divided into 64 districts (zilas) and 488 sub-districts (upazilas). The country does not have enough skilled health workers. Around 155,000 health workers (both clinical and non-clinical) were available at the Ministry of Health and Family Welfare in 2012 against expected staff size of about 187,500.⁸

2.2. Differentiation Category for Country Audits

The Global Fund has classified the countries in which it finances programs into three overall portfolio categories: focused, core and high impact. These categories are primarily defined by size of allocation amount, disease burden and impact on the Global Fund's mission to end the three epidemics. Countries can also be classed into two crosscutting categories: Challenging Operating Environments and those under the Additional Safeguard Policy. Challenging Operating Environments are countries or regions characterized by weak governance, poor access to health services, and man-made or natural crises. The Additional Safeguard Policy is a set of extra measures that the Global Fund can put in place to strengthen fiscal and oversight controls in a particularly risky environment.

The Global Fund classifies Bangladesh as:

- Focused: (Smaller portfolios, lower disease burden, lower mission risk)
- Core: (Larger portfolios, higher disease burden, higher risk)
- High Impact: (i.e. very large portfolio, mission critical disease burden)**

- Challenging Operating Environment
- Additional Safeguard Policy

⁶ World Bank 2016 estimate

⁷ https://www.transparency.org/news/feature/corruption_perceptions_index_2016

⁸ Bangladesh Human Resource for Health, August 2013

2.3. Global Fund Grants in Bangladesh

The Global Fund has been a partner in Bangladesh since 2003. Twenty grants amounting to US\$459 million have been signed to date of which 95% (US\$438 million) have been disbursed. Bangladesh has recently been allocated US\$146.2 million for investments in HIV/AIDS, TB and malaria for the 2017-2019 allocation period.

The Ministry of Finance and three non-governmental organizations are the Principal Recipients for all Global Fund grants. The Ministry of Health and Family Welfare, through the national programs for the three diseases, implements the grants on behalf of the Ministry of Finance. Each disease program is implemented by a government implementer and non-governmental organization. The seven active grants in the country are:

Grant Number	Principal Recipient	Grant Component	Grant period	Signed Amount US\$
BGD-T-BRAC	BRAC	TB	01-Jul-15 to 31-Dec-17	45,638,447
BGD-T-NTP	Ministry of Finance	TB	01-Jul-15 to 31-Dec-17	31,745,708
BGD-M-BRAC	BRAC	Malaria	01-Jul-15 to 31-Dec-17	9,684,758
BGD-M-NMCP	Ministry of Finance	Malaria	01-Jul-15 to 31-Dec-17	15,497,947
BGD-H-ICDDR,B	International Centre for Diarrhoea Disease Research of the People's Republic of Bangladesh (ICDDR,B)	HIV/AIDS	01-Dec-15 to 30-Nov-17	5,805,443
BGD-H-NASP	Ministry of Finance	HIV/AIDS	01-Dec-15 to 30-Nov-17	680,213
BGD-H-SC	Save the Children Federation Inc.	HIV/AIDS	01-Dec-15 to 30-Nov-17	7,801,955
				116,854,471

2.4. The Three Diseases



HIV/AIDS: Bangladesh has been classified as a low prevalence country: prevalence rates among key populations such as female sex workers (0.2%), transgender women (1.4%), and men who have sex with men (0.2%) are higher than the prevalence rate in the general population.⁹ Overall prevalence among people who inject drugs in Bangladesh is less than 1% but the prevalence is 27.3% in some areas in Dhaka.

12,000 People living with HIV¹¹

2,239 People currently on antiretroviral therapy¹²

HIV prevalence among general population is <0.1%

Despite low prevalence, it is one of the four countries in the South-East Asia region where the HIV epidemic continues to increase.¹⁰



Malaria: Malaria is endemic in 13 (out of 64) eastern and north-eastern border districts of which three are classified as high endemic districts. There has been a sustained decline in the incidence of malaria from 7.7 per 1,000 in 2008 to 0.028 in 2016.

3,560,000 Insecticide-treated nets distributed¹³

Malaria incidence: 1 per 1,000¹⁴

The number of cases decreased by 68% from 84,690 in 2008 to 26,891 in 2013. The number of deaths also fell by 90% from 154 in 2008 to nine in 2015.



Tuberculosis: Bangladesh is ranked 6th worldwide in absolute number of TB cases. It is one of the 22 high TB-burden countries and among the 30 high multidrug-resistant TB burden countries. Incidence of all forms of TB was estimated at 225 per 100,000 population in 2015.¹⁵ Multidrug-resistance/Rifampicin TB incidence is 6 per 100,000 population.¹⁶

1,290,000 New smear-positive TB cases detected and treated¹⁹

TB treatment success rate: 94.6% (2015/2016)²⁰

MDR-TB treatment success rate: 73% (2015/2016)²¹

The country has a TB prevalence of 434 (218-721)/100,000 population. TB is the 5th major cause of death in the country (i.e. 6.8% of total deaths are related to TB). However, mortality due to TB death decreased from 47/100,000 to 36/100,000 during the years 2006 to 2015.¹⁷ TB accounted for an estimated 81,000 deaths in 2014.¹⁸

⁹ UNAIDS Global Report, aidsinfo online. <http://aidsinfo.unaids.org/>

¹⁰ UNAIDS Global Report 2012, pg. 11

¹¹ <http://www.unaids.org/en/regionscountries/countries/bangladesh>

¹² ASP Medicine Category wise ART Receivers report, July 2017

¹³ <https://www.theglobalfund.org/en/portfolio/country/?loc=BGD&k=3c3b504b-ffc2-4d73-a75c-69f197d07256>

¹⁴ Bangladesh Malaria Program Performance Mid Term Review 2014

¹⁵ Bangladesh TB annual report 2016

¹⁶ Bangladesh TB annual report 2016

¹⁷ Bangladesh TB mortality study phase II, December 2016

¹⁸ <http://www.searo.who.int/bangladesh/world-tb-day-2016/en/>

¹⁹ <https://www.theglobalfund.org/en/portfolio/country/?loc=BGD&k=3c3b504b-ffc2-4d73-a75c-69f197d07256>

²⁰ Draft TB annual report, 2017

²¹ Draft TB annual report, 2017

3. The Audit at a Glance

3.1. Objectives

The audit sought to assure the Global Fund Board that Global Fund grants to Bangladesh are adequate and effective in supporting the achievement of impact in the country. Specifically the audit assessed:

- i. the effectiveness of the implementation arrangements to ensure efficient and sustainable achievement of grant objectives;
- ii. the effectiveness and efficiency of the procurement and supply chain to ensure availability of quality assured medicines and health commodities to patients; and
- iii. the design of the internal financial controls on incentive payments to health workers and apportionment of common costs to Global Fund grants.

These specific objectives take into account allocation, risk and disease burden of Bangladesh.

3.2. Scope

The audit was conducted in accordance with the methodology described in Annex B and covered the period from July 2015 to March 2017. Where relevant, the period was extended to enable the auditors to assess progress made by the implementers in addressing identified issues. The audit covered all the Principal Recipients of the current grants in Bangladesh.

The OIG visited the central warehouse and two drop-in centers in Dhaka.

3.3. Progress on Previously Identified Issues

The last OIG audit of grants in Bangladesh was in 2011. The audit identified weaknesses mainly in financial management, procurement and supply chain management. This audit noted improvement in the financial management of the portfolio, largely due to the strengthening of internal financial controls at the non-governmental organizations. The financial controls at the national TB program have not improved since the last audit.

An unsupported amount of US\$2.1 million identified in the last audit followed by an investigation was resolved through an “allocation reduction” approach. Under this approach, the Secretariat reduces the country’s allocation by double the recoverable amount. Hence US\$4.2 million was deducted from Bangladesh’s 2014-2016 allocation.²²

There has been some improvement in the supply chain management of the HIV/AIDS and malaria programs with significant reduction in stock-outs and expiries. However, there are still major challenges in the procurement and supply chain systems for the TB grant due to the capacity constraints at the national TB program.

Previous relevant OIG work

[Investigation Report of Sub-recipient Padakhep Manabik Unnayan Kendra \(PMUK\)-Bangladesh 2012](#)

[Audit of Global Fund grants to the People’s Republic of Bangladesh, 2012](#)

[Investigation Report - Global Fund Grants to Bangladesh National Tuberculosis Control Program 2016](#)

²² Recoveries report for the year ended 31 December 2015, GF/B35/21

4. Findings

4.1. Challenges in TB case detection and coverage of HIV services among key populations could reverse gains made.

Bangladesh has made significant progress in the fight against the three diseases. TB and drug-resistant TB treatment success rates are 94.6% and 73% respectively.²³ The country has low HIV prevalence among the general and key populations, except for people who inject drugs.

Despite the progress, low TB case detection and limited coverage of HIV services among the key populations could erode the achievements if unaddressed. This requires joint effort from all stakeholders including the government and in-country partners.

Challenges in TB case detection:

As mentioned above, the preliminary findings from the country's TB prevalence survey in 2015/2016 showed a detection rate of 62% and 53% of estimated incidence and prevalence cases respectively,²⁴ with a large proportion of cases detected at advanced stages of the disease. The proportion of children among all cases in 2015/2016 was 4.1%,²⁵ which is substantially lower than the international average of around 10%. Undetected cases may contribute to increased morbidity and mortality.

There are several implementation challenges which may inhibit the significant scale-up expected in the next grants:

- a. *Sub-optimal utilization of existing diagnostic capacity to support both TB and multidrug-resistant-TB case finding:* Development partners procured 39 GeneXpert machines for the country. The deployment of these machines has increased diagnosis of both TB and drug-resistant TB, but the utilization of these machines needs improvement. Available data indicates that GeneXpert machines operated at an average rate of 34.9% in 2015 and 2016, and only 11% of reported TB cases in 2015 and 2016 were diagnosed using the machines. The low utilization was mainly due to:
 - *Diagnostic algorithms not updated to include molecular testing and identify drug sensitive cases.* The national TB diagnostic guidelines specify smear microscopy as the primary diagnostic tool, and required GeneXpert examination only for confirmed cases with a high risk of drug-resistant TB. As a result, GeneXpert machines were not used to diagnose most drug sensitive cases. The country had initiated plans to revise the protocol by early 2017, but this was yet to be completed and rolled out in August 2017.
 - *Gaps in planning of the roll out of the machines:* The national TB program procured 10 additional GeneXpert machines under the Global Fund grant in April 2016. However there were delays in installing the machines and providing the accessories required to support their effective use. Seven of the machines were only distributed to the health facilities a year after they had arrived. Similarly, 130 LED microscopes have not been distributed to facilities since they were delivered in July 2015.
 - *Lack of regular and timely maintenance of the GeneXpert machines:* Advanced diagnostic technologies such as GeneXpert machines require regular calibration and maintenance to ensure diagnostic accuracy. However, there was no regular calibration of most of the GeneXpert machines in 2015 and 2016 and some of the modules were not functional. To address this, a service provider was contracted in January 2017 to maintain the machines.

²³ Draft TB annual report, 2017

²⁴ TB prevalence survey, 2015/2016

²⁵ National TB MIS, 2016 (9,280/223,921)

- *Lack of effective sputum sample transport mechanism:* A reliable sputum sample transport mechanism from all remote diagnostic sites to GeneXpert laboratories is key to achieving better and more accurate diagnostics. Despite the installation of GeneXpert machines, access remains difficult in most districts as an effective sputum sample transport mechanism is yet to be implemented countrywide. There is no uniform policy regarding sputum transportation, which resulted in the low referral of samples from certain facilities to the laboratories where the machines have been installed.

b. *Limited engagement of individual private practitioners and private health facilities:* 62.3% of symptomatic participants in the country's recent prevalence survey sought health care from private health facilities. However, only 28% of all TB cases in 2016 were referred from private health facilities.^{26,27} In 2014, the government passed regulations for mandatory TB case notification by the private health facilities. The mechanism for case referral from private sector to public health facilities is yet to be defined. A survey to determine the preferred reporting mechanism for private providers has been conducted through the support of a USAID program, Challenge TB. The recommended measures are being considered for implementation.

Low coverage of HIV prevention and treatment interventions:

The HIV/AIDS epidemic in Bangladesh is concentrated among key populations, but access to prevention and treatment services is difficult for them. National coverage of prevention programs is at 35% for people who inject drugs, 25% for female sex workers, 23.6% for men who have sex with men (including male sex workers), and 39.8% for transgender people (locally known as hijra).²⁸ A recent HIV and behavioral surveillance survey conducted among key populations in Dhaka, Hili and all brothels between 2015 and 2016 showed an increase in HIV prevalence in people who inject drugs from 5.3% in 2011 to 27.3% in some areas in Dhaka.

The HIV coverage has been affected by limited funding and challenges in accessing available services, due to stigma and legal barriers. There is an estimated funding gap of US\$123.5 million to support the scale-up of HIV services in the country. A national consultation on HIV in May 2013 recognized stigma, discrimination and a challenging legal environment as impediments to the smooth delivery of HIV prevention services. The consultation made recommendations and identified laws that needed to be revised. However, the national program has not yet submitted these recommendations to the Law Commission for revision.²⁹ The Global Fund has a regional grant focusing on legal barriers and policy issues to create an enabling environment and to reduce stigma and discrimination. The interventions are limited to men who have sex with men and transgender, but they do not include female sex workers and people who inject drugs, although these key populations also have high HIV prevalence in Bangladesh.

Routine monitoring of patients on anti-retroviral treatment needs improving. Guidelines for the clinical management of HIV in Bangladesh recommend routine cluster of differentiation (CD4) counts every six months for patients with confirmed HIV who are not otherwise eligible for antiretroviral therapy. This also requires routine viral load testing at specific intervals after initiation on antiretroviral therapy.³⁰ However, laboratory equipment such as CD4 and viral load machines have not been optimally utilised. A total of 567 CD4 count tests were performed in 2015 and 2016 against an estimated minimum of 15,688, based on people living with HIV. There has been no viral load test since April 2016, and only 1,030 viral load tests were performed from August 2015 to April 2016,³¹ which is significantly below expected targets of 8,956 tests. The reagents required for the machines and related human resources were not fully available, which limited the use of the machines.

²⁶ TB Prevalence Survey, 2015/2016

²⁷ TB Joint Monitoring Mission report, 2016

²⁸ Bangladesh HIV/AIDS Funding Request (2017-2020)

²⁹ For e.g. the anti-discrimination act has been drafted and expect it to be finalized by September 2017.

³⁰ National ART Guide, August 2011 (pg. 11,14) Suggested viral load in 24-48 weeks after the initiation of ART is less than 5000 copies/ml

³¹ UNAIDS Bangladesh 2016 Fact Sheet on HIV/AIDS

The above challenges have been identified through the Global Fund's risk assessment processes but need a coordinated response with all in-country stakeholders to be addressed.

Agreed Management Action 1

The Secretariat will work with the Ministry of Health and the national TB program to develop a plan to ensure effective utilization of existing and new GeneXpert machines. This plan will include implementation of revised algorithms, improvements to the sputum sample transportation system, and training of relevant health workers in the use of GeneXpert diagnostic machines.

Owner: Head, Grant Management Division

Due date: 30 September 2018

4.2. Current implementation arrangements need improvement from an operational efficiency and value for money perspective.

Global Fund grants in Bangladesh have consistently reached their programmatic performance targets. Despite the weaknesses in the health systems, the existing implementation arrangements have contributed significantly to progress against the three diseases in the country. However, there are opportunities to streamline and harmonize interventions among the implementers to improve efficiency, especially for the HIV program.

Global Fund guidelines for budgeting and annual financial reporting state that ‘the grants will only pay for the reasonable cost of interventions considering the context, need to enhance impact and *need to maximize cost efficiency*’. There is a need to improve efficiencies in the implementation of some interventions, as well as the procurement and storage of health commodities:

a. Geographical mapping of interventions targeted at female sex workers and people who inject drugs under the current grant and the government health sector program

The Global Fund HIV grants are managed by two non-governmental organizations and the national AIDS/STD program.³² There is no duplication of interventions within the Global Fund grants implemented by the three Principal Recipients. However, there is duplication and overlap between the HIV services supported by the Global Fund grants and the third Health Sector Program financed by the Government of Bangladesh.

Under the government’s Health Sector Program, the National AIDS/STD program has opened drop in centers (referred to as facilities) in the same catchment areas where similar facilities have already been set up financed by the Global Fund. This is due to a lack of effective coordination and mapping of the facilities. As a result, some priority districts had more facilities than required while other high priority districts have no or limited facilities based on the estimated number of cases in those areas and the numbers already reached under the Global Fund grants. For example, there are two facilities for an estimated 191 injecting drug users in the Sylhet district while there is only one facility for 1,142 injecting drug users in the Comilla district. There are no facilities for an estimated 270 injecting drug users in the Kishoregonj district. Likewise, there are two facilities for an estimated 331 female sex workers in the Rajbari district whilst there is only one facility for an estimated 2,395 female sex workers in the Maulvibazar district. The government and in-country stakeholders are instituting measures to limit the extent of duplication under the new health sector reform program.

b. Storage of TB, HIV and malaria commodities

The three disease programs have separate storage facilities for their commodities at the central and district levels. They also have separate distribution arrangements at all levels for the distribution of their commodities, which should be rationalized. For instance, the non-governmental organization responsible for the TB grant maintains 10 regional warehouses at district level in parallel with the government district reserve stores in the same districts. Four out of the 10 regional warehouses managed are currently underutilized, and one of the warehouses has not been used for more than a year to store TB drugs and lab items. The Global Fund Secretariat and the principal recipient have agreed to use only five warehouses during the next grant implementation period from 2018 – 2020.

c. Significant cost variations in the implementation of HIV interventions

The two non-governmental organization Principal Recipients implement the same Global Fund supported activities at significantly different costs. The two organizations implement activities in the same geographical areas without duplications. However, the human resource cost of the Principal Recipient with a comparatively lower grant size and low number of staff – ICDDR, B- is 24% higher

³² These non-governmental organizations are Save the Children and International Center for Diarrhoeal Disease Research, Bangladesh

than the other implementer. In addition, the salary of people with similar roles at different Principal Recipients were significantly different. This has affected the unit costs of some interventions. The ICDDRB has taken steps including reducing the number of staff on the Global Fund grant in the next grant period (i.e. 2018-2020) but its costs remain higher. This is partly because the human resource costs of the organization are in line with United Nations salary scales.

The Principal Recipients perform HIV diagnosis at different costs due to the varied approaches used. One implementer uses whole blood method at a cost of US\$5.49 per test while the other uses serum at US\$11.27 per test. The number of HIV tests performed under the grant could have been increased by 31,887 tests if whole blood approach was used by all the implementer. The whole blood approach has been confirmed by studies in Bangladesh to be cost efficient, and the quality is comparable to serum.³³ Both implementers have adopted the whole blood approach in the next implementation period starting from January 2018.

The Global Fund and the Country Coordinating Mechanism have initiated steps to address some of these issues under a new funding request. These include rationalization of the HIV testing approach, reduction of the number of regional warehouses managed by non-governmental organizations and leveraging existing government infrastructure.

Agreed Management Action 2

With the goal of limiting future duplications of HIV drop-in-centre interventions, the Secretariat shall work with the non governmental organization principal recipients to prepare a mapping of drop-in-centres and will share this mapping with the National AIDS and STI Program (NASP) so that the location of drop-in-centres can be taken into account when the Health Sector Program implementation plans are formulated by the Ministry of Health.

Owner: Head, Grant Management Division

Due date: 30 September 2018

³³https://www.researchgate.net/publication/297591182_Operational_feasibility_of_using_whole_blood_in_the_rapid_HIV_testing_algorithm_of_a_resource-limited_settings_like_Bangladesh

4.3. Limited measures to address institutional sustainability of TB programs, and transition of HIV treatment services to government facilities

Bangladesh represents a good example of close collaboration between government and non-governmental organizations in the response to the three diseases. The Global Fund and Country Coordinating Mechanism retained non-governmental organizations to manage most of the grants due to the weak capacity of the national programs. This has resulted in improved performance and achievement of the grant objectives in the short term. However, a plan to build the capacity of the national programs is needed in the perspective of an eventual transition in the longer term. This has been challenging in part because of the frequent changes in leadership at the national programs. The Global Fund's approach to sustainability and transition is based on the central premise that planning for sustainability should be inherent in program design and taken into account by all countries regardless of where they sit on the development continuum. The Secretariat is also expected to align requirements to ensure that Global Fund financed programs can be implemented, as much as possible, through country systems in order to build resilient and sustainable systems for health.³⁴

Institutional sustainability of the TB program: There have been more than seven Line Directors in two years at the national TB program. The lack of stable leadership has affected the ability of the national program to address the capacity weaknesses and management of the grants. Persistent weaknesses in the national programs has led the Global Fund to resort to the non-governmental organizations for the implementation of key components of the TB grants that had been initially allocated to the national program. For example, the national TB program significantly delayed the procurement and installation of diagnostic machines. To address this challenge, the non-governmental organization managing TB grant was engaged to procure the accessory equipment and arrange the renovations for the placement sites. A transitional plan has not yet been developed to build the capacity of the national program and to gradually move, in the longer term, some of the key interventions from the non-governmental organization.

Ongoing transition arrangement may affect effective implementation of HIV care, support and treatment services: The government has taken steps to integrate HIV treatment services into government facilities by the end of September 2017. This approach will need to be carefully planned and managed to mitigate any risks to the effective implementation of HIV care, support and treatment services in the country. A clear plan has not yet been developed to guide this significant transition. For example, a formal assessment is yet to be performed on the public facilities that will be providing the HIV services. Similarly, there is uncertainty about the readiness of public health systems to reach and support key populations who are stigmatized. Mechanisms for monitoring treatment adherence at government health facilities through the community care component are yet to be established. HIV programs are mainly implemented in the country through the non-government organizations and community-based organizations with a limited number in selected government hospitals.

Transitioning HIV patients from the above organizations to the government facilities without proper planning could compromise the quality of services provided to the patients, including increased risk of patients being lost to follow-up.

ICDDR,B is currently assessing the readiness of the public health systems and key populations to provide and receive sexually transmitted diseases and HIV related services. UNICEF is also piloting comprehensive HIV care in selected government health facilities. The recommendations from these studies³⁵ will have to be factored in the transition process to ensure continuity of services to patients. Time and careful planning by all the stakeholders including the Ministry of Health and in-country partners should be put into preparing for the transition to avoid any abrupt treatment disruptions by end of September 2017.

³⁴ The Global Fund Sustainability, Transition and Co-financing Policy (GF/B35/04) –pages 4&5

³⁵ ICDDR,B study is expected to be finalized in November 2017. The UNICEF study is in phases and recommendations from each phase could be considered.

4.4. Gaps in supply chain management system delays procurement, affect storage and distribution of quality-assured products.

With support from the Global Fund and partners, Bangladesh has made progress in addressing challenges in procurement and supply chain management since the last OIG audit in 2011. The Global Fund, through its pooled procurement, has ensured timely supply of medicines and commodities when the appropriate requests are received from the national programs. Alternative storage and distribution arrangements have been instituted by the Global Fund to ensure funded medicines and commodities are distributed in time to limit stock-outs at service delivery points. However, delays by the national TB program in clearing goods from the port, storage constraints and limited ownership of the supply chain continue to impact the alternative arrangements instituted by the Secretariat.

Delays in order management and clearing of TB health products: The Principal Recipients for the malaria and HIV grants have been effective in managing procurement and clearing of medicines and commodities from the port. This has ensured a stable supply to intended beneficiaries. On the other hand, the national TB program continues to experience delays in procurement of health products. For example, 85 GeneXpert machines were expected to be procured under the current grant. However, only 10 have been received as of August 2017, with only four months left before the end date of the grant. In addition, the national TB program does not consistently clear commodities from the port on time. Overall, 74% of TB medicines received from the Global Drug Facility remained in the port for an average of 52 days before they were cleared for appropriate storage. This could affect the usable shelf lives of the commodities and increase the risk of damages due to the storage condition at the port.

Sub optimal storage conditions and fragmented logistics management information system: Storage conditions at the central level for TB and malaria medicines need improvement. There is limited space available at the central stores (Shyamoli store) for anti TB medicines and commodities. The space constraint is preventing effective reconciliation of incoming shipments, stock rotations, physical counts, temperature/humidity controls and inventory management including effective implementation of the first-expired-first-out principle. There is no designated storage facility for anti-malaria medicines. These medicines are stored in the offices of the National Malaria Elimination Program under sub-optimal storage conditions, which could compromise the quality of the medicines.

The implementers use multiple systems to record logistics information with limited linkages. The logistics systems do not interface with case management systems, which is a missed opportunity to check data integrity. These systems lack early warning alerts to predict and mitigate expiries at the sub-national level. There is also limited visibility into the stock levels at the sub-national level to facilitate effective supply planning. For instance, 30% of TB medicines funded under the grant are distributed directly by over 27 sub-recipients with limited visibility on their stock levels once the medicines leave the central level. This affects pipeline supply planning and the ability to redirect medicines to facilities where they are needed. It also contributed to the expiry of TB medicines and lab commodities worth US\$1.1 million in 2015.

Limited monitoring of quality of pharmaceutical and health commodities: Medicines and commodities financed by Global Fund grants are procured from WHO-prequalified suppliers. The suppliers undertake relevant quality control measures on those medicines and health products before they are shipped to the country. However, there are limited in-country mechanisms to routinely monitor the quality of medicines across the supply chain in line with Global Fund requirements. Bangladesh does not have any WHO pre-qualified laboratory or ISO 17025 certified laboratory for quality control testing of health products procured under the funded programs. The Global Fund has allocated resources to enable the country to procure services from a WHO prequalified laboratory outside the country but this had not been done for TB and malaria medicines at the time of the audit. Post-delivery quality assurance has been performed for male condoms, and key antibiotics for the treatment of sexually transmitted infections. Considering that storage

conditions may vary within the supply chain, their quality at the time of consumption may be compromised. There is also no procedure in place to systematically report and investigate adverse drug reactions of anti-TB medicines and anti-malarial medicines distributed to the end users.

No evidence of disposal of expired medicines and improper disposal of used syringes:

The central medical store does not have processes and controls to ensure that expired commodities are disposed of or destroyed in a timely manner and within the guidelines recommended by WHO. The store was not able to provide relevant information regarding the disposal of expired TB commodities. There were also large quantities of damaged lab consumables at the store for more than a year that have not been destroyed yet. The Principal Recipients have instituted measures to destroy needles and syringes used by people who inject drugs at the capital city (Dhaka). However, there is no proper destruction process for used needles and syringes outside Dhaka.

The challenges in the supply chain management system are mainly attributed to ***limited ownership and accountability for health commodities***. Accountability and ownership of supply chain are split across different implementers especially for TB. The national TB program is responsible for quantification, ordering and central level storage of the medicines while BRAC and its sub recipients are responsible for storage at district levels and distribution to the intended beneficiaries. There is no dedicated entity responsible for the overall supply chain of the TB commodities. There are limitations in holding the entities involved accountable for their various roles. For instance, there has not been sufficient ownership to ensure that the expired TB commodities have been destroyed, and health commodities are cleared on time from the ports.

The Global Fund Secretariat is exploring different options to improve inventory management, storage, distribution and capacity of the national TB program. MSH SIAPS has been assisting the national program with supply planning, quantification and forecasting using “QuanTB” software tools, and strengthening inventory management in the central stores.

Agreed Management Action 3

The Global Fund Secretariat will work with the National Tuberculosis Program (NTP) and partner organizations to devise a plan for the enhancement of Procurement and Supply Management (PSM) systems at NTP which will seek to:

- (a) Move the central store of TB medicines from the temporary Shyamoli store to a warehousing facility which meets internationally accepted standards (GSP); and
- (b) Improve the storage and distribution systems for TB at the peripheral levels (including through improvements to staffing and capacity).

Owner: Head, Grant Management Division

Due date: 31 December 2018

4.5. Gaps in internal financial control systems over sub-recipient management and incentive payments may expose the grants to financial loss.

The non-governmental organizations have instituted measures that have improved the financial management of the grants. There are defined procedures, controls and systems at the three non-governmental Principal Recipients to ensure effective management of the resources. However, fiduciary controls at the national TB program, which is responsible for 27% of the total grant amount in the country, remains a weakness. The Global Fund has also put in place measures to mitigate the gaps, including engaging an international independent financial consultant, but the risks have still persisted.

Financial controls at the National TB Program remain weak: The Local Fund Agent and the Investigations Unit of the OIG have previously reported several instances of ineligible and unsupported transactions at the national program. OIG analysis indicated that these lapses are mainly due to deficiencies in the design and operational effectiveness of the key controls. Financial controls have not been instituted to cover grant activities implemented at the sub-national level. For instance, about US\$1.1 million, corresponding to 26% of the Principal Recipient's in-country expenditure, was spent at the sub-national level. However, the Principal Recipient does not oversee these activities. This results in significant delays (ranging from 60 to 90 days) instead of 20 days in the retirement of advances by Civil Surgeons at the sub national level.

The finance unit of the National TB Program is not actively involved in validating supporting documents at the national level and those received from the sub-national offices. These transactions are reviewed and directly approved by the Line Director even before the finance team reviews the adequacy of the supporting documentation, contrary to the Principal Recipient's policy. This limits the role of the Finance Unit to data entry instead of validation of the transactions as prescribed in the finance policy.

To mitigate the financial and fiduciary risks, the Global Fund Secretariat has retained an independent financial consultant since 2011 to build stronger financial management capacity at the national TB program. However, the consultant reports directly to the management of the national TB program which results in interference in his role. Renewal of his contracts is subject to the approval of the management of the Principal Recipient, with limited involvement by the Global Fund. This affects the ability of the consultant to perform his roles as reported in an OIG investigation report in 2017.³⁶

There is the need to improve BRAC's financial monitoring of its sub recipient. BRAC implements its interventions through 47 sub-recipients and 389 field offices. It has a team of 23 staff that provide onsite financial and programmatic oversight over the sub-recipients. It performs financial reviews at all the sub-recipients on an annual basis in addition to audits performed by its internal audit unit. BRAC is yet to develop a risk-based oversight and management plan for the sub-recipients. As a result, there is no difference in the approach of reviews at the 47 sub-recipients despite significant variations in their grant size and risk level. The same level of effort is used by the Principal Recipient in monitoring activities in all the sub-recipients due to the similarities in the implementation modalities with limited consideration of the unique implementing risks. This has reduced the ability of the Principal Recipient's internal assurance mechanism in identifying some significant issues at the sub-recipient level. For example, despite regular onsite visits to sub-recipients, BRAC's internal assurance mechanisms did not identify material issues reported by the Local Fund Agent in nine different reviews at the sub-recipients level in 2016.

³⁶ Bangladesh Investigation Report 489/2017

Agreed Management Action 4

The Global Fund Secretariat will work with the National Tuberculosis Program (NTP) and Local Fund Agent to ensure implementation of revised and enhanced financial management systems at NTP by conducting:

- (a) regular and ongoing spot checks for the rest of the current and succeeding grant periods to ensure that financial managements system have been implemented and complied with; and
- (b) regular and un-announced spot checks in the central and field level to verify programmatic activities and their associated expenditures.

Owner: Head, Grant Management Division

Due date: 30 June 2018

5. Table of Agreed Actions

Agreed Management Action	Target date	Owner
<p>1. The Secretariat will work with the Ministry of Health and national TB program to develop a plan to ensure effective utilization of existing and new GeneXpert machines. This plan will include implementation of revised algorithms, improvements to the sputum sample transportation system, and training of relevant health workers in the use of GeneXpert diagnostic machines.</p>	<p>30 September 2018</p>	<p>Head, Grant Management Division</p>
<p>2. With the goal of limiting future duplications of HIV drop-in-centre interventions, the Secretariat shall work with the non governmental organization principal recipients to prepare a mapping of drop-in-centres and will share this mapping with the National AIDS and STI Program (NASP) so that the location of drop-in-centres can be taken into account when the Health Sector Program implementation plans are formulated by the NASP.</p>	<p>30 September 2018</p>	<p>Head, Grant Management Division</p>
<p>3. The Global Fund Secretariat will work with the National Tuberculosis Program (NTP) and partner organizations to devise a plan for the enhancement of Procurement and Supply Management (PSM) systems at NTP which will seek to:</p> <p>(a) Move the central store of TB medicines from the temporary Shyamoli store to a warehousing facility which meets internationally accepted standards (GSP); and</p> <p>(b) Improve the storage and distribution systems for TB at the peripheral levels (including through improvements to staffing and capacity).</p>	<p>31 December 2018</p>	<p>Head, Grant Management Division</p>
<p>4. The Global Fund Secretariat will work with the National Tuberculosis Program (NTP) and Local Fund Agent to ensure implementation of revised and enhanced financial management systems at NTP by conducting:</p> <p>(a) regular and ongoing spot checks for the rest of the current and succeeding grant periods to ensure that financial managements system have been implemented and complied with; and</p> <p>(b) regular and un-announced spot checks in the central and field level to verify programmatic activities and their associated expenditures.</p>	<p>30 June 2018</p>	<p>Head, Grant Management Division</p>

Annex A: General Audit Rating Classification

<p>Effective</p>	<p>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.</p>
<p>Partially Effective</p>	<p>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.</p>
<p>Needs significant improvement</p>	<p>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.</p>
<p>Ineffective</p>	<p>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.</p>

Annex B: Methodology

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

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

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