October 22, 2013

MEMORANDUM

TO: USAID/Kenya Mission Director, Karen Freeman

FROM: Regional Inspector General/Pretoria, Robert W. Mason /s/

SUBJECT: Audit of USAID Kenya’s Tuberculosis Activities (Report No. 4-615-14-001-P)

This memorandum transmits our final report on the subject audit. We have considered carefully your comments on the draft report and have included them in their entirety in Appendix II.

The report includes three recommendations to strengthen USAID/Kenya’s activities to combat tuberculosis. We acknowledge management decisions on all three recommendations and consider that final action has been taken on Recommendation 1. Please provide the necessary documentation to the Office of Audit Performance and Compliance Division to achieve final action on Recommendations 2 and 3.

I want to express my sincere appreciation for the cooperation and courtesy extended to my staff during the audit.
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SUMMARY OF RESULTS

The tuberculosis (TB) epidemic in Kenya has hindered the country’s overall development by infecting more than 100,000 Kenyans and leaving thousands dead every year. According to the World Health Organization (WHO), Kenya had the 25th-highest incidence of TB worldwide, causing up to 15,000 deaths in 2011 (Global Tuberculosis Report 2012). This estimate did not include deaths of people living with HIV. Since mortality is three times higher for people living with HIV who have TB than for those without, and nearly 40 percent of all TB patients were HIV-positive, total TB deaths were significantly higher. Despite these sobering statistics, prompt treatment can cure most cases of TB.

The Government of Kenya has made important gains in TB care, diagnosis, and treatment. In 1980 it combined anti-TB activities that it started in 1956 with leprosy-control projects to form the National Leprosy and Tuberculosis Program. In 2007, the government transformed the program into a division of the Ministry of Public Health and Sanitation. The Division of Leprosy, Tuberculosis, and Lung Disease’s mandate includes developing policies, mobilizing resources, and implementing activities to control TB. The division reported that TB treatment was successful for more than 87 percent of patients who received treatment for the first time in 2010, and the health system identified 82 percent of total estimated TB cases—both rates exceeding WHO targets. However, TB in children under 15 and multi-drug-resistant TB are growing concerns. In 2010, the division drafted a new 5-year strategic plan to address them and build on previous gains.

USAID/Kenya, one of the country’s largest health sector donors, drafted its own TB strategy for 2012-2016. Since TB is the leading cause of death among people living with HIV, the strategy also promotes activities to better diagnose and care for individuals coinfected with TB and HIV. The overarching goals of the strategy are to improve TB detection and treatment, coordinate activities linking TB and HIV prevention and treatment, screen for resistance to TB drugs, and use TB-related information. Under its strategy, USAID/Kenya uses general health funds allocated to TB for one project that supports division-led interventions and uses funds from the President’s Emergency Plan for AIDS Relief to fund six other projects that support TB and HIV detection and treatment as one aspect of their HIV activities. The TB project is national while the other six projects provided services in discrete geographic areas. Three projects selected for audit appear in the following table.

<table>
<thead>
<tr>
<th>Project Name, Type, and Partner</th>
<th>Description</th>
<th>Budget</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TB Care</strong>&lt;br&gt;Field support provided by KNCV Tuberculosis Foundation (KNCV)</td>
<td>TB Care supported the division by funding operational costs, providing technical assistance, and procuring equipment.</td>
<td>$225 million worldwide; Obligations of $11.9 million and expenditures of $5.5 million in Kenya</td>
<td>9/29/2010 – 6/30/2013</td>
</tr>
<tr>
<td>Project Name, Type, and Partner</td>
<td>Description</td>
<td>Budget</td>
<td>Dates</td>
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<td>APHIA Plus Nairobi Coast</td>
<td>The project has operated in Nairobi and Coast Provinces. Its activities have included training TB health-care workers in HIV counseling and testing and renovating health facilities to promote access to services for patients coinfected with TB and HIV.</td>
<td>$55 million; obligations of $55 million; expenditures of $37.1 million, $0.7 million of which was allocated to TB/HIV</td>
<td>1/1/2011 – 12/31/2013</td>
</tr>
<tr>
<td>AMPATH Plus</td>
<td>This project in Western Kenya supports research, diagnosis of drug-resistant TB, and community treatment and care for those coinfected with TB and HIV.</td>
<td>$74.9 million; obligations of $16.8 million; expenditures of $5 million, $0.4 million of which was allocated to TB/HIV</td>
<td>3/17/2012 – 3/16/2017</td>
</tr>
</tbody>
</table>

† Field support refers to services, technical assistance, or commodities that a mission obtains through a contract or agreement that USAID headquarters awards and manages.

The Regional Inspector General/Pretoria (RIG/Pretoria) conducted this audit to determine whether USAID/Kenya’s TB activities improved laboratory capabilities and access to treatment and whether TB/HIV activities increased access to the service delivery system.

TB Care did improve laboratory capability and access to treatment. The audit reviewed data on indicators such as the treatment success rate (the percentage of first-time patients who were cured by or at least completed treatment—a key indicator of how well the country is fighting the disease) and the case detection rate (the percentage of estimated cases detected), including a review of source documentation in six TB control zones. The division-reported results for these indicators were 87 percent and 82 percent, respectively, and exceeded WHO targets. Although the division was not verifying the data, as discussed on page 6, differences identified by the audit were not significant enough to prevent the achievement of the WHO targets.

Other indications that USAID/Kenya’s activities improved laboratory capabilities and access to treatment include the following:

- **External quality assurance.** TB Care reported that the number of laboratories participating in external quality assurance rose from about 260 to approximately 1,700. External quality assurance monitors the quality of TB diagnostic tests to promote greater accuracy and reliability. The project also reported training more than 600 laboratory technicians and supervisors in quality assurance. As a result, the accuracy of lab results has improved, decreasing the number of healthy patients undergoing treatment and increasing the timely treatment of patients with TB.

- **Equipment.** TB Care purchased GeneXpert machines (like the one shown on the next page) for three facilities in Coast Province and taught staff how to use them. The machines can diagnose TB and detect drug resistance, thus producing more accurate diagnoses than

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1 In 1991, WHO set global targets of 85 percent treatment success rate and 70 percent case detection rate. WHO expected that achieving these targets would reduce the TB incidence rate by 7 to 12 percent each year. The WHO 2006-2015 Stop TB strategy reiterated that these targets should be met by 2005 and sustained or exceeded by 2015.
those performed using microscopes. According to TB Care officials, the machines can determine drug resistance in 2 hours while the alternate method takes 2 weeks. Because timely and accurate diagnosis is a prerequisite for treatment, using these machines can help increase the number of people successfully treated.

- **Electronic data collection.** TB Care helped the division develop software and procured 100 tablet computers that allowed the division to move from a paper-based data collection system to a more efficient and effective electronic system. The new technology should facilitate faster collection, recording, and use of TB-related data.

Although data limitations prevented us from definitively determining the projects’ impact nationwide, the following examples indicate that USAID/Kenya’s TB/HIV activities increased people’s access to health services:

- AMPATH Plus trained health workers to screen for TB in the communities around health facilities. The project reported that from October 1 to December 31, 2012, these workers screened almost 12,000 people.

- APHIA Plus Nairobi Coast reported directly supporting 198 health facilities. At one, the district coordinator said that APHIA Plus had repaired the roof, painted the walls, and installed burglar bars. At another location, a different district coordinator said that APHIA Plus officials had trained him in TB/HIV activities and management skills and sometimes accompanied him on visits to health facilities. These activities improved the capacity of facilities and district coordinators, increasing access to service delivery systems.

Despite these accomplishments, the audit found that:

- USAID/Kenya missed opportunities to improve financial sustainability (page 5). The implementer did not devise a sustainability plan for activities that relied heavily on donor support. The implementer also set site-visit expectations too low for district coordinators, whose number the project helped increase, inadvertently causing bloat and decreasing cost efficiency.
USAID/Kenya’s verification of data quality was inadequate (page 6). USAID/Kenya accepted some TB performance data that was not reliable, and USAID/Kenya managers relied exclusively on the division’s data quality assessment without reviewing it. Because of these limitations, the mission lacked reliable data about its TB activities in Kenya.

To address these issues and strengthen USAID/Kenya’s TB and TB/HIV activities, the audit recommends that USAID/Kenya:

1. Direct the implementer of the successor project to TB Care to include in its work plan technical assistance to the division to develop a financial sustainability plan that includes improved cost efficiency for TB programs (page 6).

2. Implement a plan to improve coordination between the division and implementing partners reporting indicator results pertaining to patients infected with TB and HIV (page 7).

3. Implement a plan to comply with USAID’s requirements for data quality assessments (DQAs) of TB indicators prepared by the division. The assessment should contain overall conclusions on the data management system, including systemic problems if found, and mission officials should review the final assessment report to verify that it complies with USAID requirements (page 7).

Detailed findings appear in the following section, and the scope and methodology appear in Appendix I. Management comments are in Appendix II, and our evaluation of them is on page 8.
AUDIT FINDINGS

USAID Missed Opportunities to Improve Financial Sustainability

USAID policy emphasizes sustainability. According to Automated Directives System (ADS) 200.3.1.5, “The ultimate goal of development cooperation is to enable developing countries to devise and implement their own solutions to key development challenges and to develop resilience against shocks and other setbacks.” To meet this goal, USAID must “ensure that activities or services are tied to sustainable financing models.” Furthermore, ADS 201.3.15.3(c) requires missions to prepare a sustainability analysis and defines sustainability as outcomes that “continue or evolve under their own momentum or actions, without continued donor intervention.”

Sustainability should be a major consideration for USAID/Kenya’s TB activities given the division’s dependence on donor funding (shown below). Donor funding supports operating expenses, and USAID/Kenya’s funding in particular supports the division’s supervision of health facilities that diagnose and treat TB patients. The TB Care budget allocated more than $4.3 million for supervision costs in fiscal years 2011 to 2013, more than 40 percent of the total budget. According to division officials, such supervision is necessary for an effective health-care delivery system, but without USAID/Kenya’s support, it would cease.

Yet USAID/Kenya missed opportunities to improve the sustainability of the division’s TB activities. Although project organizers had planned a sustainability workshop in fiscal year 2012 to outline options for the continued financing of operating costs, TB Care officials said they had difficulty scheduling the workshop. When the budget was cut for the following year, they removed the activity.

Kenya’s TB Funding Sources, 2009/10

Additionally, USAID/Kenya’s support may have inadvertently diminished sustainability of the division’s TB supervision activities. From 2009 to 2013, support allowed the division to increase the number of district coordinators from 149 to 246, increasing supervision costs (mainly for transportation and other allowances) by 65 percent. At the same time, the project unintentionally set the supervisory workload too low, leading to bloat.

TB Care paid district coordinators for travel days, not to exceed 12 each month, but only expected them to visit one site per trip. Coordinators thus had no incentive to visit multiple sites in the same day. For example, the travel records for one district coordinator showed that although all of the health facilities in his district were within a few kilometers, he visited only one each day. However, the checklist that guides these visits is only one page long, allowing district coordinators to complete it before arriving at a site and visit several sites in a single day. If the Government of Kenya had considered future sustainability, it could have required coordinators to visit 20 sites each month in 12 travel days. If coordinators visited 20 sites per month instead of 12, the division could decrease the number of district coordinators to 149, greatly reducing operating costs and improving sustainability.

As a result, the Government of Kenya is more reliant on donor funding to control TB than it was when TB Care started. Without effective planning for sustainability, reductions in donor funding will diminish the effectiveness of TB activities. In addition to the more than $1 million annually that is required for TB supervision activities, TB Care has implemented other activities that would need to be funded by the Government of Kenya if USAID funding were to end. For example, donors funded the tablet computers and the monthly Internet costs that allow the electronic data collection system implemented by TB Care to function. However, division officials acknowledged that they did not have a plan for paying for replacement tablet computers or Internet costs without donor support.

On June 27, 2013, USAID/Kenya awarded the follow-on to TB Care to the Center for Health Solutions, Kenya. Accordingly, we make the following recommendation.

**Recommendation 1.** We recommend that USAID/Kenya direct the Center for Health Solutions, Kenya, to include in its work plan technical assistance to the Division of Leprosy, Tuberculosis, and Lung Disease to develop a financial sustainability plan that includes improved cost efficiency for tuberculosis programs.

**USAID’s Verification of Data Quality Was Inadequate**

ADS Chapter 203.3.11.1, “Data Quality Standards,” states that “high-quality data is the cornerstone for evidence based decision-making,” and that the mission must determine the quality of performance data, including its reliability and timeliness, to ensure it is sufficient for making decisions. Additionally, ADS 203.3.11.2, “Purpose of Data Quality Assessments,” explains that DQAs are mandatory for indicators reported to outside parties and that they help missions understand the extent to which they can trust data in making management decisions.

Despite these requirements, USAID/Kenya did not adequately verify the quality of data collected by its implementing partners and the division. For example, the six implementing partners that receive TB/HIV funding relied on data collected by the division to compile their TB/HIV indicators. Although the division reported for several years that more than 90 percent of TB patients were tested for HIV, two of the six TB/HIV implementing partners reported in 2012 that
none of their TB patients were tested—unlikely given the high testing rate in Kenya. USAID/Kenya officials attributed this inaccuracy to delayed data sharing between the division and these partners.

To fulfill the ADS requirement to conduct a DQA, USAID supported the division’s assessment of the completeness and accuracy of the data it collected and reported, including results on the treatment success rate. Although the DQA was well designed, the division’s 2010 final report on the assessment did not answer DQA objectives. Specifically, the DQA’s primary objective was to “determine the completeness and accuracy of the TB and TB/HIV data that are being collected and reported on TB patients using TB patient treatment cards and registers.” However, the DQA presented results only for facilities visited, without using these findings to evaluate the system as a whole. For example, although the DQA noted that patient treatment cards—important records of patients' treatment history—were not available at many of the health facilities, it did not recommend fixing the problem. Not surprisingly, division officials acknowledged that unavailability of treatment cards was still a problem at health facilities in 2013.

USAID/Kenya’s data verification was inadequate in two ways. First the mission did not address delayed data sharing from TB/HIV partners. Although mission officials were aware that the initial TB/HIV reporting was incomplete because district coordinators and TB/HIV partner officials did not collaborate, they did not resolve these delays. Second USAID/Kenya did not review the DQA prepared by the division. While USAID/Kenya officials had been involved in the design of the division’s DQA, they did not review the final assessment report. Had USAID/Kenya officials done so, they could have worked with the division to revise it.

As a result, data from fiscal year 2012 TB/HIV activities was incomplete, and it was unclear the extent to which data from TB activities could be trusted. Because of the problems with data, the mission lacked timely, reliable information about its TB activities in Kenya. Although USAID/Kenya officials noted that partners would update their TB data before the mission presented consolidated figures in annual reports, reliable information was not available during the year to help monitor progress and make decisions. In addition, USAID’s fiscal year 2011 report to Congress listed treatment success rates from various countries, including Kenya, although the mission had not verified this information. Moreover, in its fiscal year 2012 full performance plan and report, which USAID uses to prepare its annual report to Congress, USAID/Kenya included 12 figures compiled by the division. Therefore, we make the following recommendations.

**Recommendation 2.** We recommend that USAID/Kenya implement a plan to improve coordination between the Division of Leprosy, Tuberculosis, and Lung Disease and implementing partners reporting indicator results pertaining to patients infected with tuberculosis and HIV.

**Recommendation 3.** We recommend that USAID/Kenya implement a plan to commission a new data quality assessment of tuberculosis performance indicators that complies with USAID’s requirements. The assessment should contain overall conclusions on the data management system, including systemic problems, if applicable, and mission officials should review the final assessment report to verify that it complies with USAID requirements.
EVALUATION OF MANAGEMENT COMMENTS

In its comments on the draft report and subsequent communication, USAID/Kenya agreed with and made management decisions on all three recommendations, taking final action on Recommendation 1. Recommendations 2 and 3 remain open pending the completion of monitoring reviews and the new DQA. Our detailed evaluation of management comments follows.

**Recommendation 1.** USAID/Kenya agreed to direct the Center for Health Solutions, Kenya, to include in its work plan technical assistance to the division to develop a financial sustainability plan, which should include improved cost efficiency for tuberculosis programs. The mission reviewed and approved a revised work plan meeting these requirements on October 8, 2013. The mission’s actions constitute both a management decision and final action.

**Recommendation 2.** USAID/Kenya agreed to improve coordination between the division and implementing partners reporting indicator results pertaining to patients infected with TB and HIV. USAID/Kenya made a management decision, directing its implementing partners to hold quarterly meetings with the division and promising to monitor meetings for three consecutive quarters. The mission expects to complete this action by March 31, 2014.

**Recommendation 3.** USAID/Kenya agreed to conduct a new DQA for TB performance indicators that complies with USAID’s requirements and review the final assessment report. The mission’s management decision was to commission a new DQA in September 2013 and review the ongoing assessment for compliance with USAID requirements. The mission expects the final report around November 15, 2013, and anticipates completing action on this recommendation by January 31, 2014.
SCOPE AND METHODOLOGY

Scope

RIG/Pretoria conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions in accordance with our audit objective. We believe the evidence obtained provides that reasonable basis.

The objectives of the audit were to determine whether USAID/Kenya’s TB program improved laboratory capabilities and access to treatment, and whether USAID/Kenya TB/HIV activities increased access to the service delivery system. We obtained documentation from USAID/Kenya on all seven TB and TB/HIV projects active as of December 31, 2012. The projects included in the scope of the audit were TB Care, implemented by KNCV; APHIA Plus Nairobi Coast, implemented by Pathfinder; and AMPATH Plus, implemented by a consortium led by Moi Teaching and Referral Hospital. We selected these three projects based on funding amounts, reported results, and each project’s relevance to the audit objectives. Cost ceilings for these projects totaled $141.8 million for activities in Kenya. As of March 31, 2013, obligations for the three projects totaled $83.7 million and expenditures amounted to $47.6 million. Total expenditures allocated to TB or TB/HIV activities and included in the audit scope totaled $6.6 million. This represents the amount tested as part of this performance audit.

We performed the audit in Kenya from April 29 through May 16, 2013. We began the audit by reviewing key planning documents such as the Government of Kenya’s and USAID/Kenya’s TB strategies, implementing partner agreements, modifications, quarterly reports, and work plans for fiscal years 2012 and 2013. We conducted fieldwork at USAID/Kenya, at Pathfinder and KNCV offices in Nairobi, Pathfinder’s office in Mombasa, and at Moi Teaching and Referral Hospital offices in Eldoret. We then conducted site visits to selected health facilities and interviewed beneficiaries in and around Mombasa and Eldoret.

In planning and performing the audit, we assessed the significant internal controls used by USAID/Kenya to monitor program activities, including work plans and performance reports. We reviewed the contracting procedures used to issue the agreements for the projects included in the scope. We also reviewed the mission’s certification required under the Federal Managers’ Financial Integrity Act of 1982 (as codified in 31 U.S.C. 1105, 1113, and 3512) for fiscal year 2012 and a prior audit report related to USAID/Kenya’s HIV activities to identify internal control and other issues that could be relevant to the current audit.

Methodology

To answer the audit objectives, we reviewed program documentation, including cooperative agreements and progress reports, and corroborated information with interviews and site visits. We interviewed USAID/Kenya, implementing partner, and Government of Kenya officials. Site visits included seven health facilities ranging from provincial hospitals to community health dispensaries. During site visits, we assessed compliance with branding and marking plans and spoke with beneficiaries to ascertain their awareness of USAID and their views of program effects. The key factors for selecting locations for site visits were their ability to enhance our
understanding of the types of activities implemented, accessibility, and their contribution to obtaining a mix of different types of health facilities, such as clinics or hospitals.

We selected two performance indicators to track the success of TB activities associated with Objective 1—to improve laboratory capability and access to treatment in Kenya as implemented through TB Care. We selected two additional performance indicators relevant to Objective 2—increased access to service delivery systems in Kenya—and reviewed the data prepared for the APHIA Plus Nairobi Coast and AMPATH Plus projects that implemented TB/HIV activities. During site visits to TB-funded activities, we verified the location and use of commodities purchased, including GeneXpert machines, motor bikes, and tablet computers used by district coordinators for supervisory visits to health facilities. Because implementing partners use data collected by the division’s district coordinators, we examined district and health facility registers. We recalculated the district’s totals for indicators such as the number of new patients started on treatment and the number of retreatment cases from the district coordinator’s records and compared them with the amounts shown in the division’s central records. We also compared data from the district coordinator’s records with the registers maintained at each health facility. We performed these procedures at seven judgmentally selected health facilities in four districts, which were selected based on facility classification, accessibility, and types of activities performed. Because we did not use a statistical sample, the results of our tests cannot be projected to the population from which they were drawn. We established a materiality threshold of 5 percent of the reported result.
DATE: 1 OCT 2013
FROM: Karen Freeman, Mission Director, USAID/Kenya

TO: Acting Regional Inspector General/Pretoria, Bradley Klingsporn

SUBJECT: Audit of USAID Kenya’s Tuberculosis Activities (Report No. 4-615-13-XXX-P)

This memorandum transmits USAID/Kenya’s management comments on three recommendations contained in the subject audit report in accordance with ADS 595.3.1.2. The objective of the audit was to “determine whether USAID/Kenya’s TB activities improved laboratory capabilities and access to treatment and whether TB/HIV activities increased access to the service delivery system.”

Recommendation 1: “We recommend that USAID/Kenya direct the Center for Health Solutions, Kenya, to include in its work plan technical assistance to the Division of Leprosy, Tuberculosis, and Lung Disease to develop a financial sustainability plan that includes improved cost efficiency for tuberculosis programs.”

Mission Response: USAID/Kenya concurs with this recommendation.

The Mission via attached email dated October 1, 2013, instructed Center for Health Solutions (CHS) to include in its first year work plan, technical assistance to the Division of Leprosy, Tuberculosis and Lung Disease (DLTLD) to develop a financial sustainability plan that includes improved cost efficiency for the tuberculosis programs. CHS submitted the revised work plan on October 4, 2013. Mission reviewed and approved the work plan on October 8, 2013 and confirms that it includes a financial sustainability plan that includes improved efficiency for the tuberculosis program. This action is complete.

Recommendation 2: “We recommend that USAID/Kenya implement a plan to improve coordination between the Division of Leprosy, Tuberculosis, and Lung Disease and implementing partners reporting indicator results pertaining to patients infected with tuberculosis and HIV.”

Mission Response: USAID/Kenya concurs with this recommendation.

The Mission has incorporated in the new TB project’s program description a plan to improve coordination between DLTLD and implementing partners reporting indicator results pertaining to
TB/HIV co-infected patients. This comprises quarterly review meetings between DLTLD and USAID/Kenya TB/HIV implementing partners reporting on TB/HIV indicators which is also included in CHS’ approved work plan. USAID/Kenya will follow-up to ensure action points identified in these joint meetings are implemented by the TB/HIV partners as would be reported by the implementing partners and CHS in their quarterly reports to USAID. Follow up meetings are planned to occur on a quarterly basis with leadership from DLTLD. This action will be completed after monitoring three quarterly meetings. The target completion date is March 31, 2014.

**Recommendation 3:** “We recommend that USAID/Kenya implement a plan to commission a new data quality assessment of tuberculosis performance indicators that complies with USAID’s requirements. The assessment should contain overall conclusions on the data management system, including systemic problems, if applicable, and mission officials should review the final assessment report to ensure it complies with USAID requirements.”

**Mission Response:** USAID/Kenya concurs with this recommendation.

The Mission commissioned the data quality assessment (DQA) of tuberculosis indicators on September 23, 2013. This DQA is currently ongoing and mission is concurrently reviewing it to ensure it complies with USAID’s requirements. The final assessment report is expected on or about November 15, 2013. The target completion date is January 31, 2014.