OFFICE OF INSPECTOR GENERAL

AUDIT OF USAID/TANZANIA'S PEPFAR-FUNDED ACTIVITIES AND COMMODITIES FOR THE PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

AUDIT REPORT NO. 4-621-09-008-P
August 28, 2009

PRETORIA, SOUTH AFRICA

Office of Inspector General

August 28, 2009

MEMORANDUM

TO: USAID/Tanzania, Mission Director, Robert Cunnane

FROM: Regional Inspector General/Pretoria, Nathan S. Lokos /s/

SUBJECT: Audit of USAID/Tanzania's PEPFAR-Funded Activities and Commodities for the Prevention of Mother-to-Child Transmission of HIV (Report No. 4-621-09-008-P)

This memorandum transmits our final report on the subject audit. In finalizing our report, we considered your comments on our draft report and have included your response in its entirety as appendix II.

The report makes seven recommendations, advising USAID/Tanzania to:

1. Develop a plan to provide training on the prevention of mother-to-child transmission (PMTCT) of HIV to implementing partners and service providers on how to properly record and report program results, maintain source documents, and avoid mathematical errors.
2. Establish procedures to ensure that performance management plans are complete and provide for data quality testing.
3. Establish procedures to ensure that data quality assessments are completed in a timely manner in accordance with applicable guidance.
4 Establish procedures to ensure that site visits provide for data quality testing and adequate documentation of the test results.
5. Complete a staffing study of the program.
6. Develop and implement a plan, with milestones, to provide training to all implementing partners and service providers of PMTCT commodities on how to maintain inventory records and manage stocks.
7. Investigate and resolve the problem of commodities with short shelf lives that were issued to PMTCT service providers by the Tanzanian Medical Stores Department.

In your response to the draft report, you provided corrective action plans addressing all seven recommendations. Therefore, we consider that management decisions have been reached on these recommendations. Please provide the Office of the Chief Financial Officer, Audit, Performance, and Compliance Division (M/CFO/APC), with the necessary documentation to achieve final action on recommendations 1 through 7.

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

USAID/Tanzania's activities for the prevention of mother-to-child transmission of HIV (PMTCT)—including procuring, managing, storing, and distributing related commodities—are a critical part of the mission's implementation of the President's Emergency Plan for AIDS Relief (PEPFAR).[1] The mission's fiscal year (FY) 2008 PMTCT program involved 12 implementing partners, which received a reported $13.8 million under a variety of agreements. The current program strategy began in 2004 and runs through 2014. The program's goal is to provide a package of services to mothers to prevent transmission of HIV infections to their infants. (See page 3.)

The audit found that USAID/Tanzania is making positive contributions to Tanzania's countrywide program to prevent mother-to-child transmission. The program began with the establishment of PMTCT services in antenatal clinics and labor wards in health clinics (also referred to as service outlets or service providers) that furnish the minimum package of these services to patients. By the end of FY 2008, the mission had established 1,111 of these service outlets, surpassing the target of 765. This achievement was crucial to the overall PMTCT program, because without service outlets capable of offering PMTCT services, none of the other essential services could be provided. The service outlets supported by the mission also represent a significant contribution to the Government of Tanzania's national program to prevent mother-to-child transmission—they constitute almost half of the 2,474 such facilities reported by the Tanzanian Government at the end of FY 2008 for all program donors and 53 percent of all antenatal clinics in the country. (See pages 5 and 6.)

Problems with data quality prevented the audit from determining the precise number of women who had received HIV counseling and testing or who had received antiretroviral prophylaxis for prevention of HIV transmission in a PMTCT setting. However, audit tests did indicate that a significant number of women were counseled and tested and that HIV prophylaxis was administered whenever necessary. (See page 5.)

The audit also found that USAID/Tanzania had procured, stored, and distributed commodities to help ensure that intended results for the PMTCT program were achieved. Although USAID/Tanzania did not have specific performance indicators for procuring, storing, and distributing PMTCT commodities, mission commodities management contributed to the results that were reported for other PMTCT activities by supplying the commodities necessary to accomplish those results. For example, women were tested for HIV using the test kits furnished through the mission program and, if found to be positive, were subsequently provided HIV prophylaxis supplied through the mission program. Without the commodities, these services could not have been provided. (See page 13.)

Nevertheless, despite the positive effects of USAID/Tanzania's activities on Tanzania's national program to combat HIV, certain aspects of the mission's program could be strengthened. These include the following issues:

- Improving the accuracy of reported results
- Preparing a complete performance management plan that provides for data quality testing

[1] HIV/AIDS—human immunodeficiency virus/acquired immunodeficiency syndrome.

- Completing thorough data quality assessments in a timely manner
- Conducting thorough site visits
- Improving management of PMTCT commodities (See pages 5–15.)

This report recommends actions to address these issues. The recommendations include providing training to PMTCT implementing partners and service providers; requiring that mission staff perform and document adequate data quality assessments and site visits; completing a staffing study of the program; investigating and resolving the problem of commodities with short shelf lives that were issued to PMTCT service providers by the Tanzanian Medical Stores Department. (See pages 9–15.)

Management comments are included in their entirety in appendix II.

BACKGROUND

Since its inception in 2003, the President's Emergency Plan for AIDS Relief (PEPFAR) has made significant progress in combating HIV/AIDS (human immunodeficiency virus/acquired immunodeficiency syndrome) throughout the world. Combining $18.8 billion in funding and an integrated approach that includes prevention, treatment, and care, PEPFAR has supported life-saving antiretroviral treatment for 2.1 million people and care for over 10.1 million through September 2008. To build upon these achievements, President George W. Bush signed legislation in July 2008 authorizing up to $48 billion over the next 5 years to continue the U.S. Government's global efforts against HIV/AIDS, tuberculosis, and malaria. Tanzania is one of 15 focus countries under PEPFAR.[2]

USAID/Tanzania's current program strategy for the prevention of mother-to-child transmission (PMTCT) began in 2004 and runs through 2014. For FY 2008, USAID/Tanzania reported planned funding of $13.8 million for the PMTCT program, awarded to 12 implementing partners under a variety of agreements.

Mother-to-child transmission remains the leading source of HIV infections in children, and providing PMTCT services remains an essential challenge. With more than 1.5 million births annually and 8.2 percent HIV prevalence at antenatal clinics, approximately 123,800 HIV-positive women deliver exposed infants annually in Tanzania. Assuming a 35 percent transmission rate without intervention, an estimated 43,300 children will become infected with HIV each year. About 98 percent of pregnant women attend antenatal clinics at least once. The clinics provide an excellent opportunity to prevent pediatric HIV infections by offering care and antiretroviral therapy for HIV-positive women and their families.

The Government of Tanzania has expanded PMTCT services from 5 sites in FY 2004 to 1,347 sites in FY 2007, of which 1,022 (74 percent) receive direct support from the U.S. Government. According to the Office of the Global AIDS Coordinator's FY 2008 Semiannual Progress Report, 318,630 pregnant women (44 percent of those attending antenatal clinics and labor and delivery wards in Tanzania) received counseling and testing services, and 15,550 (26 percent of all estimated HIV-positive pregnant women in Tanzania) received antiretroviral prophylaxis for PMTCT at U.S. Government-funded sites. The reported acceptance of counseling and testing at antenatal clinics has increased from 86 percent to 98 percent, as routine counseling and testing have become more widely implemented.

Among all health facilities in Tanzania, the proportion of those providing PMTCT services has increased from 12 percent to 25 percent. However, despite the considerable expansion of PMTCT activities, only 30 percent of all HIV-positive women

[2] The 15 focus countries consist of 12 countries in Africa (Botswana, Côte d'Ivoire, Ethiopia, Kenya, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Uganda, and Zambia) and 3 other countries (Guyana, Haiti, and Vietnam). More than 50 percent of all prenatal infections (an infection caused by HIV that can be passed from a mother to her baby) occur in these focus countries.

in Tanzania receive antiretroviral therapy prophylaxis through these facilities. Between October 2006 and March 2008, among all new patients receiving antiretroviral therapy, the percentage of those who were pregnant women increased from 2.7 percent to 5.6 percent, but that rate remains far too low. The rate of participation remains low because, among several reasons, 50 percent of pregnant women deliver outside of a health facility, the referral system to connect PMTCT activities with antiretroviral therapy services is inadequate, and the few mothers' support groups in the community provide only a weak network.

To strengthen PMTCT services, the program seeks to accomplish the following:

- Increase women's access to services
- Increase women's participation in counseling and testing services at both antenatal clinics and labor and delivery wards
- Increase acceptance of antiretroviral prophylaxis regimens
- Strengthen postnatal follow-up and assistance in infant feeding
- Provide basic preventive care to more mothers and infants
- Strengthen community connections to care and antiretroviral therapy

AUDIT OBJECTIVES

The Office of Inspector General conducted this audit as part of its fiscal year 2009 audit plan to answer the following questions:

- Did USAID/Tanzania's activities for the prevention of mother-to-child transmission of HIV contribute toward meeting mandated targets, and what impact have the activities made?

- Did USAID/Tanzania procure, store, and distribute commodities for the prevention of mother-to-child transmission of HIV to help ensure that intended results were achieved, and what impact have the activities made?

Appendix I contains a discussion of the audit's scope and methodology.

AUDIT FINDINGS

Did USAID/Tanzania's activities for the prevention of mother-to-child transmission of HIV contribute toward meeting mandated targets, and what impact have the activities made?

The activities of USAID/Tanzania's prevention of mother-to-child transmission (PMTCT) program did contribute toward meeting mandated targets. Furthermore, those activities have had a positive impact on Tanzania's countrywide program to combat HIV.

These contributions began with the establishment of PMTCT services in antenatal clinics and labor and delivery wards in health care facilities (also referred to as service outlets or service providers) that furnish the minimum package of PMTCT services to pregnant women. By the end of fiscal year (FY) 2008, the mission had established 1,111 of these service outlets, surpassing the target of 765. This achievement was a crucial component of the overall PMTCT program, because without service outlets capable of offering PMTCT services, none of the other essential services could be provided. The service outlets supported by the mission also represent a significant contribution to the Government of Tanzania's national PMTCT program—they constitute almost half of the 2,474 PMTCT facilities reported by the Tanzanian Government at the end of FY 2008 for all program donors and 53 percent of all antenatal clinics in the country.

With the establishment of PMTCT service outlets, USAID/Tanzania's program was able to provide PMTCT services to pregnant women. Although problems with data quality prevented the audit from determining the precise number of patients receiving PMTCT services,[3] audit tests indicated that a significant number of patients did receive such services.

Although the ultimate goal of the prevention component of PEPFAR is to avert HIV infections, USAID/Tanzania's program does not have the financial or technical resources to measure the number of averted HIV infections directly. Moreover, only the four teaching hospitals in Tanzania have the technical ability to perform the advanced test[4] necessary to detect the virus in infants. In addition, according to the mission, only a small percentage of mothers bring their babies back after delivery for HIV testing, further limiting the number of babies that can be tested.

Nevertheless, the number of infections averted can be estimated from the number of HIV-positive patients who received prophylaxis. In its most recent annual PEPFAR report, the Office of the Global AIDS Coordinator estimated that HIV prophylaxis has been effective in 19 percent of the cases in which it was administered. This percentage

[3] The mission used two performance indicators to measure actual PMTCT services: the number of pregnant women counseled and tested (indicator 2) and the number of HIV-positive women who received HIV prophylaxis (indicator 3). Unfortunately, the audit could not determine whether targets for these two performance indicators were met, because of questions surrounding the validity and reliability of the data and inaccuracies in reported results (see page 6). Appendix III presents a table detailing the performance indicators for the PMTCT program.
[4] The test is polymerase chain reaction technology, which is part of a program for early diagnosis of HIV in infants. The program is in a beginning stage of implementation.

reflects an estimate that current PMTCT interventions are reducing the rate of transmission of HIV from 35 percent to 16 percent, which equates to a 53 percent decrease in the HIV transmission rate. The audit applied this percentage to the number of patients receiving the drugs under USAID/Tanzania's PMTCT program[5] and concluded that the program has had a significant impact in averting HIV infections.

Although USAID/Tanzania's PMTCT program has made significant contributions to the national program to combat HIV, the mission can further strengthen its program in several areas: (1) improving the accuracy of reported results, (2) preparing a complete performance management plan that provides for data quality testing, and (3) completing thorough data quality assessments in a timely manner. These areas are discussed below. A fourth area—improving commodities management—is also discussed later in this report, under the second audit objective.

Results Not Always Accurately Reported

Summary: Contrary to applicable guidance, results for two indicators were not always accurately reported. The principal causes were the lack of adequate record-keeping and reporting systems, resulting from a lack of training, as well as weak internal control over monitoring and evaluating. Consequently, USAID/Tanzania did not have reasonable assurance that intended results were being achieved, and managers might not have reliable information upon which to make sound performance-based decisions.

USAID's results-oriented approach to management calls for its managers to consider performance information when making decisions. Sound decisions require accurate, current, and reliable information, and the benefits of USAID's results-oriented approach depend on the quality of performance information.[6]

To be reliable, an indicator must accurately reflect the performance element that it purports to measure. This requirement is recognized by both USAID's Automated Directives System (ADS) and the *Guidelines for Indicator and Data Quality.* The ADS[7] states that indicators selected for inclusion in the performance management plan should measure changes that are clearly and reasonably attributable, at least in part, to USAID. The *Guidelines for Indicator and Data Quality* state that one of the critical requirements for an indicator is the degree to which the indicator and the related data accurately reflect the process the indicator is being used to measure. The guidelines further explain that "validity" refers to data that clearly and directly measure the result they are intended to measure; "reliability" refers to data that have a stable or consistent measuring process; and "timeliness" refers to data that are sufficiently up-to-date to be useful in decision making. Finally, it is important that performance information be recorded and documented. The Government Accountability Office's (GAO) *Standards for Internal Control in the Federal Government* require accurate and timely recording of

[5] Because of the questionable data quality mentioned in note 3, the audit did not attempt to calculate the number of infections averted.
[6] USAID's *Guidelines for Indicator and Data Quality* (TIPS No. 12).
[7] ADS 203.3.4.2.

all transactions and significant events. These standards also require that transactions and significant events be clearly documented, with the documentation readily available.

Two of USAID/Tanzania's PMTCT indicators were not accurately reported by two major implementing partners. The inaccurate reporting raised questions concerning the validity and reliability of the respective results in the mission's FY 2008 performance report. These problems consisted of (1) inaccurate reporting by the service provider and (2) unreconciled differences between the records of implementing partners and those of service providers. These problems are summarized below.

Elizabeth Glaser Pediatric AIDS Foundation. Implementing partner Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) did not accurately report FY 2008 results for performance indicators 2 and 3, the number of patients counseled and tested, or those receiving HIV prophylaxis; therefore, the validity and reliability of the results for these indicators could not be determined. For these indicators, the patient registers at all 11 EGPAF sampled service outlets, which consisted of district hospitals, dispensaries, and clinics, did not reconcile to the amounts reported to USAID by the implementing partner. The variances were significantly above or below the amounts reported to USAID. Specific examples include the following:

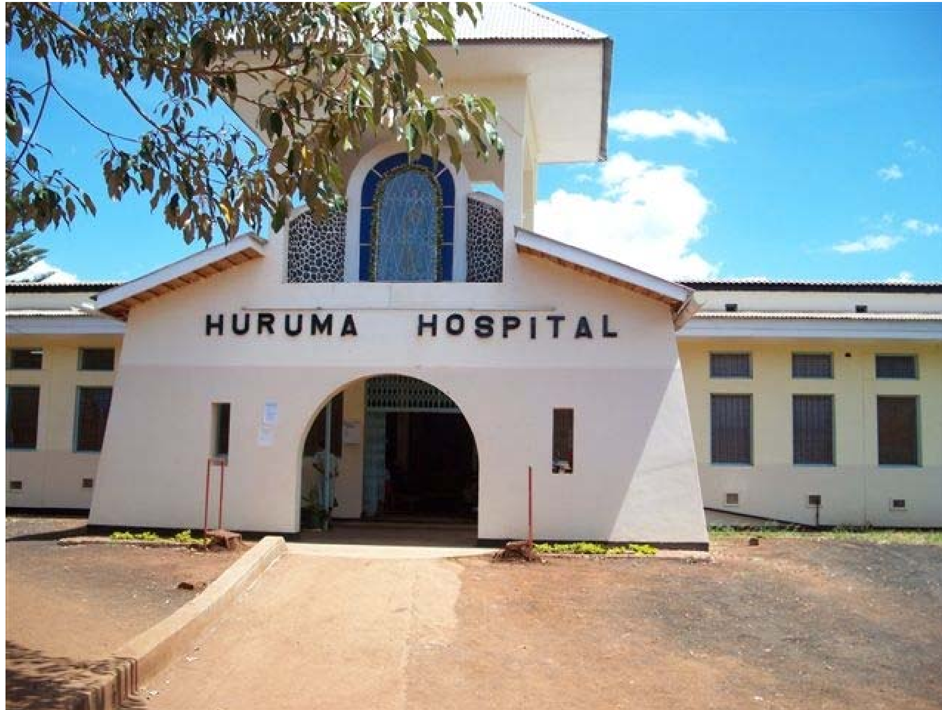
- At Mkomaindo District Hospital, the patient registers indicated that 2,338 patients had been counseled and tested, whereas the partner reported only 1,128 to USAID, for a variance of 1,210 (52 percent).
- At Newala District Hospital, the patient registers indicated that 1,446 patients had been counseled and tested, whereas the partner reported 1,789 to USAID, for a variance of 343 (24 percent).
- At Kaloleni Dispensary, the patient registers indicated that 180 patients had received HIV prophylaxis, whereas the partner reported 276 to USAID, for a variance of 96 (53 percent).

Similarly, the monthly reports prepared by the service outlets, which had been sent to the district headquarters and to the USAID partner, did not reconcile to the amounts reported to USAID by the implementing partner. Again, the variances were both significantly above and below the amounts on the monthly reports. Specific examples include the following:

- At St. Benedict's Hospital, Ndanda, the monthly reports indicated that 1,107 patients had been counseled and tested, whereas the partner reported 415 to USAID, for a variance of 692 (63 percent).
- At Mkonaindo District Hospital, the monthly reports indicated that 111 patients had received HIV prophylaxis, whereas the partner reported 133 to USAID, for a variance of 22 (20 percent).
- At Ngarenaro Health Center, the monthly reports indicated that 309 patients had received HIV prophylaxis, whereas the partner reported 505 to USAID, for a variance of 196 (63 percent).

As a result of these significant variances, the audit could not obtain reasonable assurance that the results reported by EGPAF under indicators 2 and 3 were valid and reliable and met required data quality standards.

Additionally, EGPAF's schedule of service outlets supporting performance indicator 1 included a nonexistent duplicate outlet, with results reported under indicators 2 and 3. A staff member apparently had entered a misspelling of another service outlet as an additional facility. EGPAF states that controls are now in place to prevent further entries of erroneous outlets.



A rural PMTCT hospital in Rombo District, Kilimanjaro Region, Tanzania. (Photograph taken by an Office of Inspector General auditor in March 2009.)

EngenderHealth. Implementing partner EngenderHealth did not accurately report FY 2008 results for performance indicators 2 and 3, the number of patients counseled and tested, or those receiving antiretroviral prophylaxis; therefore, the validity and reliability of the results for these indicators could not be determined. At the three locations sampled, the patient registers, as well as the monthly reports, did not reconcile to the amounts reported to USAID by the implementing partner. The variances were significantly above or below the amounts reported to USAID. For example, at Babati District Hospital, patient registers indicated that 3,676 patients had been counseled and tested, whereas EngenderHealth reported 4,719 to USAID, for a variance of 1,043 (28 percent).

Similarly, the service provider's monthly reports did not reconcile to the amounts reported to USAID by the implementing partner. For example, Magugu Health Center reported that 35 patients had received HIV prophylaxis, in contrast to the 47 reported to USAID by EngenderHealth, resulting in a variance of 12 (34 percent). As a result of these significant variances, the audit could not obtain reasonable assurance that the results reported by EngenderHealth under indicators 2 and 3 were valid and reliable and met required data quality standards.

The data problems occurred because the staff at the service outlets and implementing partners lacked proper training. Also, an incomplete performance management plan, as well as incomplete data quality assessments and site visits (discussed later in this report), resulted in weak internal control. The service outlets, consisting of several types of local organizations, were not always aware of record-keeping and reporting requirements. In addition, service outlets used a variety of Ministry of Health forms for recording patient services and relied on undocumented reporting mechanisms. With inadequate records and inconsistent and undocumented reporting systems, internal control for results reporting could not ensure that reported results were (1) valid, (2) attributable to the mission's program, (3) accurate and supported, and (4) accurately summarized before being reported to the mission.

Without accurately reported results, USAID/Tanzania did not have reasonable assurance that the data met standards of validity, reliability, and timeliness. Without reliable data, managers could be unable to make sound performance-based decisions. For these reasons, this audit includes the following recommendation to strengthen the results reporting system under the mission's PMTCT program.

> ***Recommendation 1:*** *We recommend that USAID/Tanzania develop and implement a plan, with milestones, to provide training to all implementing partners and service providers for prevention of mother-to-child transmission on how to properly record and report program results, maintain source documents, and avoid mathematical errors.*

Performance Management Plan Not Complete

Summary: The performance management plan for the FY 2008 PMTCT program did not address the quality of the results data reported by implementing partners, nor did it include all indicator reference sheets, contrary to USAID guidance. The mission attributed this problem to a staff shortage and the rapid expansion of the program. Without a complete plan to provide adequate data quality, USAID/Tanzania could not ensure that it was maintaining the elements essential to the operation of a credible and useful performance-based management system.

The performance management plan for the FY 2008 PMTCT program did not address the quality of data from implementing partners, which were the primary source of program data. The performance plan simply assumed that the data in partner reports were of adequate quality and made no provision for confirming data quality. USAID's *Performance Management Toolkit* states that the goal of assessing data from implementing partners and secondary sources is for missions to be aware of data strengths and weaknesses and of the extent to which data can be trusted when reporting and making management decisions. For data from implementing partners, the *Toolkit* recommends that performance plans include periodically sampling and reviewing data for completeness, accuracy, and consistency. It also recommends conducting field visits to compare central office records with field site records and visiting a broad range of sites.

An additional problem with the performance plan was the absence of performance indicator reference sheets for indicators 1, 4, and 5. The reference sheets constitute the basic format for outlining the monitoring controls to manage the individual performance indicators.

The mission indicated that these omissions arose from a staff shortage and the program's rapid expansion. Only one staff member—who also had responsibility for the tuberculosis and antiretroviral treatment programs—was assigned to the PMTCT program. According to mission officials, it was unable to comply with all ADS requirements as a consequence of a limited staff with responsibility for a large portfolio.

Without a complete performance plan that provided for data quality testing, USAID/Tanzania did not have reasonable assurance that data quality met acceptable standards of validity, reliability, and timeliness, without which managers would lack the performance information needed to make sound decisions. Had the mission established procedures in the plan for regular data quality testing, many of the data problems previously identified in the report could have been avoided or reduced. For these reasons, this report makes the following recommendation to strengthen the results reporting system under the mission's PMTCT program:

> ***Recommendation 2:*** *We recommend that USAID/Tanzania establish procedures to ensure that performance management plans are complete and provide for data quality testing.*

Data Quality Assessments Not Completed in a Timely Manner

Summary: Contrary to USAID guidance, data quality assessments for the PMTCT program were not completed in a timely manner. This problem arose from weak internal control and staffing constraints. As a result, data quality problems developed, leaving USAID/Tanzania without reasonable assurance that data quality for its indicators met acceptable standards for validity, timeliness, and reliability. Poor quality of data on performance could prevent managers from making sound decisions.

The ADS[8] states that the purpose of data quality assessments is to ensure that operating units are aware of (1) the strengths and weaknesses of data, as determined by applying applicable quality standards, and (2) the extent to which data integrity can be trusted to influence management decisions. The ADS also states that data reported to USAID/Washington for reporting purposes in compliance with the Government Performance and Results Act of 1993 or for reporting externally on USAID performance must have had a data quality assessment within 3 years before submission.

USAID's *Performance Management Toolkit* states that missions should determine whether there are procedures to (1) ensure that data are free of significant error or bias, (2) periodically review data collection, maintenance, and processing, and (3) provide for

[8] ADS 203.3.5.2.

periodic sampling and quality assessment of data. To assess the quality of partner data, the *Toolkit*, in conjunction with the ADS, recommends periodically sampling and reviewing partner data to ensure completeness, accuracy, and consistency and determining whether the partner appropriately addressed known data quality problems. To monitor whether implementation is on track toward expected results, missions can use field visits, data from other sources, and independent surveys or evaluations to ensure acceptable data quality. According to the ADS, missions should assess whether reports accurately reflect actual performance in the field. All assessments should be documented and available.

Although USAID/Tanzania had completed data quality assessments for three of its PMTCT partners in FY 2008, the assessments were not completed for all major partners and not in a timely manner. With the program beginning in FY 2004, the mission had been reporting results for 4 years without required assessments. Although additional PMTCT partner assessments were scheduled for the near future, they had not been completed at the time of this audit. As a result, data validity and reliability problems had not been identified before the mission reported results for its five PMTCT indicators.

The mission indicated that this problem arose from program staffing constraints and the program's rapid expansion. According to mission officials, they were unable to comply with all ADS requirements because the limited staff had responsibility for a large portfolio implemented at a national level.

Without adequate data integrity testing, the mission did not have reasonable assurance that data used for performance-based decision making and reporting were valid and reliable. Unreliable data can undermine the appropriateness of management decisions and the ability of managers to evaluate the effectiveness and efficiency of their programs. Had procedures been in place to complete data quality assessments in a timely manner and to address data integrity problems identified in the assessments, the data validity and reliability problems could have been corrected for the respective indicators identified in this report.

> ***Recommendation 3:*** *We recommend that USAID/Tanzania establish procedures to ensure that data quality assessments are completed in a timely manner in accordance with applicable guidance.*

Thorough Site Visits Not Conducted

Summary: Contrary to USAID guidance, USAID/Tanzania did not conduct thorough site visits at its implementing partners' and service providers' locations. The mission attributed this problem to the lack of available staff. Without active monitoring and thorough site visits, the mission did not have reasonable assurance that data used for performance-based decision making and reporting were valid and reliable.

The ADS[9] states that strategic objective teams must ensure that they have adequate official documentation on agreements used to implement USAID-funded projects, as well as on the resources expended, issues identified, and corrective actions taken. Moreover, the ADS[10] states that monitoring the quality and timeliness of implementing partners' outputs is a major task of cognizant technical officers [now referred to as contracting officer's technical representatives] and strategic objective teams. It specifies that quality problems provide an early warning that results may not be achieved and that early action in response to problems is essential in managing for results.

To assess the quality of partner data, USAID's *Performance Management Toolkit*, in conjunction with the ADS, recommends periodically sampling and reviewing partner data to ensure completeness, accuracy, and consistency and determining whether the partner appropriately addressed known data quality problems. The *Toolkit* also recommends developing a simple site-visit guide, covering all topics of interest, to be used systematically by teams visiting all sites.

Although the PMTCT team conducted some site visits, it did not have documentation to show that data validity and reliability were verified during those visits. This was a crucial omission for the partners and service providers that were experiencing problems with data validity, reliability, and accurate reporting. According to mission officials, this problem resulted from staffing constraints during FY 2008 and the program's rapid expansion. Only one staff member, who also had responsibility for the tuberculosis and antiretroviral treatment programs, was assigned to the PMTCT program. This understaffing affected the mission's ability to complete monitoring and evaluation activities. Although additional staff has been retained since FY 2008, it is unclear whether the current staff is sufficient to manage a program of $14 million annually with over 1,100 service outlets. To address this uncertainty, an organized effort should be undertaken to analyze the required workloads of the available PMTCT staff.

Without active monitoring through regular site visits and data verification, the mission did not have reasonable assurance that data used for performance-based decision making and for reporting were valid and reliable. An active monitoring program with regular site visits could have identified documentation and reporting issues and avoided many of the data reliability problems identified in this report. Therefore, this report makes the following recommendations to improve the monitoring capacity of site visits.

> ***Recommendation 4:*** *We recommend that USAID/Tanzania establish procedures to ensure that site visits provide for data quality testing and adequate documentation of the test results.*
>
> ***Recommendation 5:*** *We recommend that USAID/Tanzania complete a staffing study of the prevention of mother-to-child transmission program to determine whether the program is staffed adequately.*

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[9] ADS 202.3.4.6.
[10] ADS 202.3.6.

Did USAID/Tanzania procure, store, and distribute commodities for the prevention of mother-to-child transmission of HIV to help ensure that intended results were achieved, and what impact have the activities made?

USAID/Tanzania procured, stored, and distributed commodities for the prevention of mother-to-child transmission (PMTCT) program to help ensure that intended results were achieved. Although USAID/Tanzania did not have specific performance indicators for procuring, storing, and distributing PMTCT commodities, mission commodities management contributed to the results that were reported for other PMTCT activities by supplying the commodities necessary to accomplish those results. Women were tested for HIV using the test kits furnished through the mission program and, if found to be positive, were subsequently provided HIV prophylaxis supplied through the mission program. Without the commodities, these services could not have been provided.

When USAID-funded PMTCT commodities arrived in Tanzania, they were immediately delivered to the Tanzanian Government's Medical Stores Department (MSD), which has in the past received technical assistance from the U.S. Government on managing commodities. The commodities were then segregated and marked by funding source and stored in well-maintained secure facilities. Once the commodities were received and inventoried, they were distributed to the various service providers, including private and Government hospitals, dispensaries, and clinics. MSD managed its commodities with a well-documented inventory system that was capable of tracking receipts and distributions and computing current stocks.

The service outlets generally furnished well-maintained and secure commodity storage facilities. After receiving the commodities, the pharmacy staff at the outlets dispensed the test kits as requested by the medical staff for counseling and testing, as well as HIV prophylaxis for pregnant women who had tested positive for HIV. Although the outlets reported substantial results for the counseling and testing and prophylaxis indicators as set forth in appendix III, several of the providers experienced significant problems in the management of PMTCT commodities. These problems are discussed below.

Commodity Management Needed Improvement

Summary: PMTCT commodity management at the service provider level needed improvement in several areas to meet the criteria established in applicable guidance. Several service providers did not maintain inventory systems, did not know how many commodities were on hand, did not maintain safety stocks, and were unable to use commodities prior to the expiration date. These problems occurred because of a lack of training at the service provider level, in addition to supply problems with the Government. As a result, the service providers lacked accountability for commodities, ran out of stock of some items, and incurred added expense to replace expired commodities.

Although the mission may have exceeded its target in establishing PMTCT service outlets, those outlets cannot function without a steady and reliable supply of

commodities. Test kits to determine women's HIV status and antiretroviral prophylaxis for women who test positive must be readily available and possess adequate shelf life for their effective use; otherwise, these essential services cannot be provided. To achieve service goals, the providers need to manage the commodities properly and account for them accurately.

The importance of commodity management is also reflected in GAO's *Standards for Internal Control in the Federal Government.* These standards require the establishment of physical controls to safeguard vulnerable assets, such as inventory. Such assets should be counted periodically and reconciled to control records to help reduce the risk of errors, fraud, and misuse. Additionally, transactions should be recorded promptly and accurately. All documentation and records should be properly managed and maintained.

The management of PMTCT commodities at the service outlet level needed improvement in several areas. Five of the fourteen sampled locations lacked inventory records for test kits and antiretroviral prophylaxis. Bin cards (also known as stock cards) for these PMTCT commodities were not always updated when commodities were received and dispensed. Some cards had not been updated since 2005. In addition, bin cards frequently did not include beginning and ending inventory dates or commodity expiration dates. Without adequate inventory records, the providers' pharmacy staffs could not determine the current level of commodities on hand and, therefore, submitted orders for unnecessary additional stock. Moreover, at these five locations, the staff did not compute and maintain safety stock levels necessary to prevent running out of stock. One location was unable to use its test kits before the expiration dates, while five other locations had commodities that were near their expiration dates.

Test kits with short shelf lives stored at Ndanda District Hospital in Tanzania. (Photograph taken by Office of Inspector General auditor in March 2009.)

This general lack of inventory records and accountability at five locations resulted in significant variances between physical counts and inventory records. Consequently, the providers could not determine whether any commodities had been lost or stolen. Additionally, without accurate inventory counts, providers did not maintain safety stocks and did not place orders in a timely manner; as a result, seven locations ran out of test kits. Moreover, four locations reported stockouts of infant antiretroviral prophylaxis. Without the necessary commodities, the medical staff could not provide PMTCT services, reducing the total results for the fiscal year. For example, at one location in the Mtwara Region, a stockout of test kits lasted for approximately 6 months, during which counseling and testing could not be performed. Three of the larger service outlets also complained that MSD was not completely filling their orders, causing a shortage of commodities.

These problems occurred because of a lack of training at the service provider level. The service providers' pharmacy staffs had little training in maintaining basic inventory systems or managing inventory stocks; they were, therefore, not aware of impending expiration dates. The problems of short shelf life, as well as expiration of test kits and antiretroviral prophylaxis, resulted from two separate causes. One cause was the staff's inexperience in maintaining adequate inventory records. A contributory cause arose from supply problems with the MSD: Five service outlets complained that commodities delivered by MSD had such a short shelf life remaining that in some instances they could not use the commodities before expiration. For example, in the Mtwara Region, one hospital had approximately 1,375 test kits in its inventory that were expiring within 4 months, and at current patient levels, they probably could not be used in time. The staff stated that these commodities will expire because MSD provided kits that had insufficient remaining shelf life.

To help ensure that sufficient commodities are available for required PMTCT services, this report makes the following recommendations.

> ***Recommendation 6:*** *We recommend that USAID/Tanzania develop and implement a plan, with milestones, to provide training to all implementing partners and service providers of prevention of mother-to-child transmission commodities on how to maintain inventory records and manage stocks.*

> ***Recommendation 7:*** *We recommend that USAID/Tanzania develop and implement a plan, with milestones, to investigate and correct the problem of service providers' receiving commodities with short shelf lives from the Medical Stores Department.*

EVALUATION OF MANAGEMENT COMMENTS

In its response to the audit team's draft report on PEPFAR-funded activities and commodities for the prevention of mother-to-child transmission of HIV/AIDS (PMTCT), USAID/Tanzania concurred with all seven recommendations. The mission described the actions it plans to take to address the noted concerns. The mission's comments and the audit team's evaluation of those comments are summarized below.

In response to recommendation 1, concerning training for PMTCT implementing partners and service providers in reporting data and documenting results, the mission will work with implementing partners to strengthen data management by providing refresher courses and undertaking routine data quality assessments. With the assistance of another partner, the mission will work with its implementing partners to design refresher courses in 3 months and begin executing refresher training courses in 6 months. As a result of these planned actions, the audit team considers that a management decision has been reached on the recommendation. Documentation supporting the completed actions should be sent to the Office of the Chief Financial Officer, Audit, Performance and Compliance Division (M/CFO/APC), for final action.

In response to recommendation 2, concerning procedures to ensure that performance management plans are complete and provide for data quality testing, the mission has updated its performance management plan to reflect the audit recommendation. As a result of this action, the audit team considers that a management decision has been reached on the recommendation. Documentation supporting the completed actions should be sent to the Office of the Chief Financial Officer, Audit, Performance and Compliance Division (M/CFO/APC), for final action.

In response to recommendation 3, concerning procedures to ensure that data quality assessments are completed in a timely manner in accordance with applicable guidance, the mission has a procedure in place already and has begun systematic data quality assessments and capacity building with 15 partners. This process will allow the mission to reach a broader set of subpartners and subgrantees. The mission plans to carry out a minimum of 10 data quality assessments per year. As a result of these planned actions, the audit team considers that a management decision has been reached on the recommendation. Documentation supporting the completed actions should be sent to the Office of the Chief Financial Officer, Audit, Performance and Compliance Division (M/CFO/APC), for final action.

In response to recommendation 4, concerning procedures to ensure that site visits provide for data quality testing and adequate documentation of the test results, the mission will integrate data quality testing into the standard site-visit tool. Additionally, the HIV/AIDS monitoring and evaluation adviser will carry out a minimum of four random data quality checks per year. As a result of these planned actions, the audit team considers that a management decision has been reached on the recommendation. Documentation supporting the completed actions should be sent to the Office of the Chief Financial Officer, Audit, Performance and Compliance Division (M/CFO/APC), for final action.

In response to recommendation 5, concerning the completion of a staffing study for the PMTCT program to determine whether the program is staffed adequately, the mission will, as part of developing its annual country operational plan, undertake a staffing review across all program areas including PMTCT. Upon concurrence by the interagency team, revised staffing levels will be implemented. The review is scheduled to be completed by November 2009. As a result of these planned actions, the audit team considers that a management decision has been reached on the recommendation. Documentation supporting the completed actions should be sent to the Office of the Chief Financial Officer, Audit, Performance and Compliance Division (M/CFO/APC), for final action.

In response to recommendation 6, concerning a plan to provide training to all PMTCT implementing partners and service providers in maintaining inventory records and manage stocks, the mission has already initiated a plan and activities to address the stated deficiencies. Supply chain management advisers have been placed at each zonal warehouse to provide support in training and monitoring of site ordering practices. In June, an implementing partner developed a formal logistics mentoring program to work directly with partners' pharmacist and logistics specialist staff to provide training and technical support to treatment sites. Additionally, two partners have been tasked to develop a quarterly joint site visitation schedule, which should be approved by August. As a result of these planned actions, the audit team considers that a management decision has been reached on the recommendation. Documentation supporting the completed actions should be sent to the Office of the Chief Financial Officer, Audit, Performance and Compliance Division (M/CFO/APC), for final action.

In response to recommendation 7, concerning a plan to investigate and correct the problem of service providers' receiving commodities with short shelf lives from the Medical Stores Department, the mission is working with the Medical Stores Department to review, develop, and implement a new information technology system to provide better inventory management. The system is in addition to the three actions planned in response to recommendation 6. Full implementation is expected within 18 months of commencement. The mission is also reviewing the current policy of not sending products with less than 3 months of shelf life to the field. As a result of these planned actions, the audit team considers that a management decision has been reached on the recommendation. Documentation supporting the completed actions should be sent to the Office of the Chief Financial Officer, Audit, Performance and Compliance Division (M/CFO/APC), for final action.

SCOPE AND METHODOLOGY

Scope

The Office of Inspector General 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, based on our audit objective, which was to determine whether USAID/Tanzania's activities for the prevention of mother-to-child transmission of HIV (PMTCT) have contributed toward meeting mandated targets and to assess what impact have the activities made. We believe that the evidence obtained provides that reasonable basis. Audit fieldwork was conducted at USAID/Tanzania from March 9 to April 3, 2009, and covered fiscal year (FY) 2008.

In planning and performing the audit, the audit team assessed management controls related to management review, proper execution of transactions and events, and review of performance measures and indicators. Specifically, we studied and evaluated the following:

- FY 2008 operational plan (new requirement for FY 2007)
- FY 2008 performance management plan
- Certification required under the Federal Managers' Financial Integrity Act of 1982
- Implementing partner agreements
- Performance measures
- Actual performance results
- FY 2008 data quality assessments
- Financial reports

We also interviewed key USAID/Tanzania personnel, implementing partners, service providers, and Tanzanian Government officials. We conducted the audit at USAID/Tanzania and at the activity sites of three major implementing partners, as well as at Government storage facilities.

As of September 30, 2008, USAID/Tanzania's PMTCT program had agreements with 12 partners. We focused primarily on the three agreements through which most of the reported results were contributed. Reported obligations through the end of FY 2008 totaled $13.8 million for the 12 PMTCT agreements.

Methodology

To answer the audit objective, we reviewed the FY 2008 operational plan's targeted and actual results. At USAID/Tanzania, the PMTCT program reported on five performance indicators in its operational plan. We did not audit two of the five indicators, because of time constraints and the lesser significance of those indicators.

For the three remaining standard indicators, we validated performance results and compared reported information with documented results for a judgmentally selected sample of results submitted by the major implementing partners for FY 2008. We

reviewed the agreements, progress reports, and work plans of the major implementing partners and service providers that contributed results to the three indicators we tested.

We reviewed applicable laws and regulations—as well as USAID policies and procedures pertaining to USAID/Tanzania's PMTCT program—including the Federal Managers Financial Integrity Act of 1982 certification, Automated Directives System (ADS) chapters 202 and 203, and supplemental ADS guidance.

We also reviewed obligating and budget reports as of September 30, 2008, and current reports for which the fieldwork took place. In the process of testing the results of the three selected indicators, we conducted site visits at 14 service providers as well as numerous other site visits at the offices of implementing partners and the Government of Tanzania's Medical Stores Department. These visits included interviews with USAID/Tanzania's PMTCT team members, implementing partners, service providers, and beneficiaries, as well as a review of relevant documentation.

MANAGEMENT COMMENTS

DATE: **August 11, 2009**

REPLY TO ATTN OF: Robert F. Cunnane, Mission Director /s/

SUBJECT: Mission Comments on Audit of USAID/Tanzania's PMTCT Program

TO: Nathan S. Lokos, Regional Inspector General/Pretoria

REF: Draft Report No. 4-621-09-00X-P

The Mission would like to thank RIG/Pretoria for this timely audit. USAID/Tanzania will strive to implement the recommendations set forth in this report, based on the plan and timeline described below. Additionally, the Mission fully expects that implementation of several of the recommendations will strengthen our overall program, particularly with respect to program monitoring and data integrity. Presented below is our management response for each recommendation.

Recommendation 1: We recommend that USAID/Tanzania develop and implement a plan, with milestones, to provide training to all implementing partners and service providers for prevention of mother-to-child transmission on how to properly record and report program results, maintain source documents, and avoid mathematical errors.

Mission Response: The Mission concurs with this recommendation as USAID/Tanzania recognizes the importance of keeping proper records, accurate reporting of program results, maintaining source documents and avoiding mathematical errors. While the activities to support this recommendation are part of the national PMTCT training courses that our implementing partners support, it does seem that many of these skills are yet to be mastered. USAID/Tanzania will work with implementing partners to strengthen data management even further by providing refresher courses and undertaking routine data quality assessments. USAID/Tanzania, with support from Measure Evaluation, will work with implementing partners to design refresher courses in three months and begin executing refresher training courses in six months.

Mission requests closure of this recommendation.

Recommendation 2: We recommend that USAID/Tanzania establish procedures to ensure that performance management plans are complete and provide for data quality testing.

Mission Response: The Mission concurs with this recommendation and at the submission of this memo, has updated its PMP to reflect audit recommendations.

Mission requests closure of this recommendation.

Recommendation 3: We recommend that USAID/Tanzania establish procedures to ensure that data quality assessments are completed in a timely manner in accordance with applicable guidance.

Mission Response: The Mission concurs with this recommendation and has already a procedure in place. USAUD/T has already begun systematic data quality assessments and capacity building with fifteen partners. USAID/Tanzania will continue to undertake this intensive process as resources allow striving to reach a broader set of sub-partners/sub-grantees. USAID/Tanzania will ensure that it carries out a minimum of ten data quality assessments per year documenting the findings and technical assistance responses in program files.

Mission requests closure of the recommendation.

Recommendation 4: We recommend that USAID/Tanzania establish procedures to ensure that site visits provide for data quality testing and adequate documentation of test results.

Mission Response: The Mission concurs with this recommendation and will integrate data quality testing into the standard site visit tool. Further, the HIV/AIDS Monitoring and Evaluation Advisor will carryout out a minimum of four random data quality checks a year and report will be lodged with USAID.

Mission requests closure of the recommendation.

Recommendation 5: We recommend that USAID/Tanzania complete a staffing study of the prevention of mother-to-child transmission program to determine whether the program is staffed adequately.

Mission Response: The Mission will, as part of its annual Country Operational Plan (COP) development undertake a staffing review across all program areas including PMTCT. Upon concurrence by the inter-agency team, revised staffing levels will be implemented. This review process will be completed by November 2009.

Mission requests closure of the recommendation.

Recommendation 6: We recommend that USAID/Tanzania develop and implement a plan, with milestones, to provide training to all implementing partners and service providers of prevention of mother-to-child transmission commodities on how to maintain inventory records and manage stocks.

Mission concurs with this recommendation and has already initiated a plan and activities to address these deficiencies.

1. Between November 2008 and March 2009 Supply Chain Management Advisors (SCMA) were placed at each Medical Stores Department (MSD) zonal warehouse. The advisors role is to provide support to MSD in training and monitoring of site ordering practices. They are also available to work with all PMTCT implementing partners. In June an additional SCMA was approved for the three largest zones – (Mwanza, Dar es Salaam and Dodoma) achieving complete national coverage. They are expected to be in the field by October 31st 2009
2. In June a formal logistics mentoring program was developed by Supply Chain Management Services (SCMS) to work directly with implementing partner's pharmacist and logistics specialist to provide training and technical support to treatment sites. A work shop was held with stakeholders and a toolkit for supervisory visits was developed. This will be rolled out in the next six months.
3. In COP 2009 MSH was awarded funding to provide technical assistance in site level pharmacy management. MSH and SCMS have been tasked to develop a joint site visitation schedule on a quarterly basis. The first visitation schedule is due to USAID on August 14, 2009 for approval.

Mission requests closure of the recommendation.

Recommendation 7: We recommend that USAID/Tanzania develop and implement a plan, with milestones, to investigate and correct the problem of service providers' receiving commodities with short half lives from the Medical Stores department.

The Mission concurs with this recommendation and has already initiated a plan to address these deficiencies. (Responses 1-3 under recommendation number 6 also apply to this recommendation). In addition:

1. USAID is working with MSD through Technical Assistance to review, develop, and implement a new Information Technology System to provide better inventory management within the MSD system. Current project time line is being developed. The anticipated full implementation time line is 18 months from project commencement.
2. Current MSD policy is to not send product with less than 3 month shelf life to the field. USAID will review this policy with MSD.

Mission requests closure of this recommendation upon completion of the review

USAID/Tanzania PEPFAR-Funded PMTCT Program Indicators for Fiscal Year 2008

Indicator Title	FY 2008 Target	FY 2008 Reported
1. Service outlets providing the minimum package of PMTCT services	765	1,111
2. Pregnant women who received HIV counseling and testing for PMTCT and received their test results	362,661	365,556#
3. HIV-infected pregnant women who received antiretroviral prophylaxis for PMTCT in a PMTCT setting	25,346	14,783#
4. Health workers trained in the provision of PMTCT services according to national and international standards	2,270	2,388*
5. HIV-positive pregnant or lactating women receiving food and nutritional supplementation in a PMTCT setting	0	617*

We were unable to confirm the validity and reliability of these results.

* Not audited.

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