



**USAID**  
FROM THE AMERICAN PEOPLE

**OFFICE OF INSPECTOR GENERAL**

---

**AUDIT OF  
USAID/MOZAMBIQUE'S  
PROCUREMENT AND  
DISTRIBUTION OF  
COMMODITIES FOR THE  
PRESIDENT'S EMERGENCY  
PLAN FOR AIDS RELIEF**

AUDIT REPORT NO. 4-656-09-001-P  
DECEMBER 18, 2008

PRETORIA, SOUTH AFRICA



*Office of Inspector General*

December 18, 2008

**MEMORANDUM**

**TO:** USAID/Mozambique Mission Director, Todd Amani

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

**SUBJECT:** Audit of USAID/Mozambique's Procurement and Distribution of Commodities for the President's Emergency Plan for AIDS Relief (Report No. 4-656-09-001-P)

This memorandum transmits our report on the subject audit. In finalizing this report, we considered management comments on the draft report and have included those comments in their entirety as appendix II.

This report includes eight recommendations to strengthen USAID/Mozambique's efforts to monitor the procurement and distribution of commodities for the President's Emergency Plan for AIDS Relief. In response to the draft report, the mission concurred with recommendation nos. 1 through 7 and management decisions have been reached for these seven recommendations. The mission did not concur with recommendation no. 8 to strengthen USAID/Mozambique's compliance with agency branding requirements. A management decision for recommendation no. 8 will be considered to have been reached when USAID/Mozambique develops procedures and implements a plan for ensuring partner compliance with ADS 320 branding requirements.

Please provide USAID's Office of Audit, Performance and Compliance Division (M/CFO/APC) with the necessary documentation demonstrating that final action has been taken on recommendation nos. 1 through 7.

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

# CONTENTS

<b>Summary of Results</b> .....	1
<b>Background</b> .....	3
Audit Objective .....	4
<b>Audit Findings</b> .....	5
Use of Expired HIV Test Kits.....	6
Donor Coordination Is Needed to Minimize Drug Expirations .....	8
Better Commodities Storage Is Needed.....	9
Inventory Records Not Always Updated .....	13
Lack of Site Visits.....	15
Reported Results Need to Be Verified and Validated .....	16
Lack of USAID Branding .....	17
<b>Other Matters</b>	
Site Visit to Regional Distribution Center Centurion, South Africa .....	19
Expired PEPFAR Commodities at the Regional Distribution Center .....	19
<b>Evaluation of Management Comments</b> .....	22
<b>Appendix I – Scope and Methodology</b> .....	24
<b>Appendix II – Management Comments</b> .....	27
<b>Appendix III – Storage Conditions Tested</b> .....	31

# SUMMARY OF RESULTS

In fiscal year (FY) 2007, USAID/Mozambique procured more than \$5.4 million<sup>1</sup> in antiretroviral drugs and human immunodeficiency virus (HIV) rapid test kits in support of the President's Emergency Plan for AIDS Relief (PEPFAR), the U.S. Government strategy to prevent, treat, and care for individuals affected and infected with HIV/AIDS (page 3). The Office of Inspector General conducted this audit as part of its FY 2008 audit plan to determine whether USAID/Mozambique procured, deployed, and warehoused its PEPFAR commodities to help ensure that intended results were achieved, and to determine the impact of these efforts<sup>2</sup> (page 4).

In general, USAID/Mozambique deployed and warehoused its PEPFAR commodities to achieve intended results;<sup>3</sup> however, the mission did not procure all planned commodities during FY 2007 because of delays in receiving the country operational plan funding allocations for 2007 (COP07). The late availability of funds and delays in commodity requests from the Government of Mozambique were the primary reasons for the mission's lack of progress in achieving intended results. The COP07 funding was received on September 4, 2007, and was completely expended by August 2008. Despite several constraints, such as poor road infrastructure, challenges in the Mozambique Ministry of Health's human capacity, and an understaffed USAID/Mozambique HIV/AIDS team, the PEPFAR-funded activities of the selected partners have had a positive impact on the communities served. USAID/Mozambique's annual progress report of September 2007 reported that 78,236 individuals were receiving antiretroviral therapy against the target of 110,000. As for counseling and testing, in settings other than preventing mother-to-child transmission of HIV, the mission reported that 422,209 individuals received counseling and testing for HIV. The results are particularly noteworthy given the challenging operating environment in Mozambique. (see pages 5–6)

Although these results are noteworthy, the mission needs to coordinate more closely with USAID/Washington staff responsible for administering the centrally managed commodity management contract to establish policies and procedures for expired drugs, improve warehouse storage conditions, and coordinate donor efforts in procuring and distribution of essential antiretroviral drugs. (see pages 6—13, and page 19).

---

<sup>1</sup> As of September 2007, the cumulative amount of procured PEPFAR commodities in Mozambique was \$11 million, which represents the cumulative procured since the start of the Supply Chain Management Systems project in 2006.

<sup>2</sup> For the purpose of this audit, PEPFAR commodities consisted of products purchased with PEPFAR funding for the detection and treatment of HIV/AIDS, including antiretroviral drugs, test kits, laboratory equipment and supplies, and other essential medicines used to prevent and treat AIDS-related opportunistic infections.

<sup>3</sup> USAID/Mozambique procures commodities through the Supply Chain Management System. These commodities are consigned to the Government of Mozambique's Center for Medicines and Medical Supplies. Although the distribution of commodities is not USAID/Mozambique's direct responsibility, it provides oversight through the Supply Chain Management System. The Center for Medicines and Medical Supplies is responsible for procuring, importing, warehousing, and distributing medicines used by the public health system. It manages the commodity warehouses and commodity logistics related to the HIV/AIDS program.

This report includes eight recommendations to strengthen USAID/Mozambique's efforts to monitor the procurement, deployment, and warehousing of commodities for PEPFAR. USAID/Mozambique concurred with seven of the recommendations and has reached management decisions on those seven recommendations. Management comments are included in their entirety in appendix II.

# BACKGROUND

In 2003, President George W. Bush launched the President's Emergency Plan for AIDS Relief (PEPFAR), committing \$15 billion over 5 years for the prevention, treatment, and care of individuals with HIV/AIDS in 15 focus countries—the largest international health initiative in history to fight a single disease. On July 30, 2008, President Bush signed into law a bill to reauthorize and expand the HIV/AIDS aid program for 5 additional years from 2009 through 2013. The reauthorized PEPFAR program calls for \$48 billion to be spent on health initiatives over the next 5 years: \$39 billion for PEPFAR bilateral HIV/AIDS programs, \$5 billion for the malaria initiative, and \$4 billion for the tuberculosis initiative.

Mozambique, one of PEPFAR's 15 focus countries,<sup>4</sup> has a 16.1 percent national HIV prevalence rate among adults ages 15–49.<sup>5</sup> From fiscal years (FYs) 2004 to 2006, Mozambique received approximately \$192 million in overall PEPFAR funding.<sup>6</sup> In FY 2007, PEPFAR provided \$162 million in U.S. Government funding to implement the comprehensive HIV/AIDS prevention, treatment, and care programs in Mozambique.

In September 2005, USAID contracted with the Partnership for Supply Chain Management (Partnership) to procure commodities for the care and treatment of HIV/AIDS and related infections and to provide related technical assistance. This centrally managed indefinite-quantity contract has a ceiling price of \$7 billion. The USAID/Washington contracting officer issues task orders against the contract as needs become defined. The first task orders issued called for up to \$586 million over 3 years to procure and distribute antiretroviral drugs and other needed commodities and to provide technical assistance for supply chains. Missions access the task orders by allocating mission funding through a mechanism called “field support.” At the time of audit, the task orders had an estimated completion date of September 29, 2008.

As of September 30, 2007, U.S. Government departments and agencies had procured nearly \$111 million in commodities through the contract with the Partnership. USAID/Mozambique's cumulative amount of procured PEPFAR commodities through September 30, 2007, was \$11.1 million, of which more than \$5.4 million was for antiretroviral drugs and/or HIV test kits procured through the Partnership.

The Supply Chain Management System's goal is to strengthen or establish secure, reliable, cost-effective, and sustainable supply chains to meet the care and treatment needs of people living with HIV/AIDS. The project seeks to assist the Mozambique Ministry of Health's Center for Medicines and Medical Supplies through five major interventions:

---

<sup>4</sup> The 15 focus countries are Botswana, Côte d'Ivoire, Ethiopia, Kenya, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Uganda, Zambia, Guyana, Haiti and Vietnam.

<sup>5</sup> UNAIDS, Report on the Global AIDS Epidemic, 2006.

<sup>6</sup> This figure was obtained from the PEPFAR Web site, <http://www.pepfar.gov>

- Antiretroviral quantification and procurement
- Antiretroviral logistics system development
- Laboratory logistics system development
- Other HIV/AIDS-related commodities and logistics strengthening
- Logistics information system implementation

## **AUDIT OBJECTIVE**

This audit is one of a series conducted in multiple countries for USAID's procurement and distribution of PEPFAR commodities. In accordance with its FY 2008 audit plan, the Regional Inspector General/Pretoria performed this audit to answer the following question:

- Has USAID/Mozambique procured, deployed, and warehoused its PEPFAR commodities to help ensure that intended results were achieved, and what has been the impact?

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

# AUDIT FINDINGS

Except for certain weaknesses in its management of commodities, in general, USAID/Mozambique deployed and warehoused its President's Emergency Plan for AIDS Relief (PEPFAR) commodities to help ensure that intended results were achieved. However, the mission did not procure all planned commodities during fiscal year (FY) 2007 because of delays in receiving (1) funding allocations from the Office of the Global AIDS Coordinator (OGAC) and (2) commodity requests from the Government of Mozambique. The following paragraphs answer the audit objective more fully and describe the impact of USAID's efforts. Despite falling short of the procurement goals, USAID's efforts have had a substantial impact on the number of individuals on antiretroviral therapy in Mozambique.

**Procured** – In FY 2007, USAID/Mozambique procured only 46 percent of its planned procurement of commodities reported in the 2007 country operational plan. The mission budgeted \$11.7 million to procure antiretroviral drugs and HIV test kits, and it procured \$5.4 million worth of these commodities. The late availability of funding and delays in receiving requests for commodities from the Government of Mozambique were the primary reasons for the lack of progress in achieving planned procurement levels. Eventually, all planned commodity procurements in the FY 2007 country operational plan were completed, but not until August 2008. Because the shortfall in FY 2007 procurement arose due to circumstances beyond the control of USAID/Mozambique, this audit does not make a recommendation related to this area.

**Deployed** – Commodities were deployed first to the Mozambique Ministry of Health's central warehouses in Maputo and Beira and from there were distributed throughout the country to district storage facilities (for distribution to clinics) and hospitals. Using PEPFAR funds, implementing partners also purchased supplemental HIV/AIDS test kits to prevent stockouts at health centers. At storage and health facilities the audit team visited, staff reported that antiretroviral medicines and laboratory supplies, for the most part, were available when needed. At the health facilities tested, laboratory equipment provided by an implementing partner during 2007 was in place and was operating as intended, making HIV testing more readily available.

The mission's Country Results and Projections to Achieve 2-7-10 Goals<sup>7</sup> for the number of individuals receiving antiretroviral treatment in FY 2007 were 78,236 against the target of 110,000. As for the number of individuals who received counseling and testing for HIV/AIDS in FY 2007, the mission reported 422,209 against the target of 300,000, which is an increase of 102 percent above the FY 2006 reported results.

**Warehoused** – Storage conditions at the warehouses and health facility pharmacies visited generally met the standards set by John Snow International/Deliver (JSI/Deliver)–

---

<sup>7</sup> Worldwide PEPFAR goals are to support treatment for at least 2 million people living with HIV/AIDS, prevent 7 million new infections, and care for 10 million people infected with and affected by HIV, including orphans and vulnerable children.



Supply Chain Management System (SCMS).<sup>8</sup> Of the 19 storage conditions tested in the audit, 17 were met in at least six of the seven warehouses visited. (See appendix III for storage conditions tested.) Situations where standards were not always met are discussed in the following pages.

**Impact** – USAID/Mozambique’s efforts to procure, deploy, and warehouse its commodities have significantly increased the number of individuals on antiretroviral therapy in Mozambique. Although OGAC has not established any required indicators related to the procurement, deployment, or warehousing of commodities, a related indicator (the number of individuals on antiretroviral therapy) shows that USAID’s efforts have made a substantial impact in this area. According to USAID/Mozambique’s annual progress report for FY 2007, 78,236 individuals were receiving antiretroviral therapy. Similarly, for counseling and testing, in settings other than preventing mother-to-child transmission of HIV, the mission reported that a total of 422,209 individuals received counseling and testing for HIV/AIDS.

To help ensure that USAID/Mozambique achieves desired results and strengthens its procurement, deployment, and warehousing of PEPFAR commodities, the mission needs to coordinate more closely with SCMS and Mozambique’s Ministry of Health to ensure that the issues discussed below are addressed.

## Use of Expired HIV Test Kits

Summary: Contrary to best practices and the recommendation of the HIV test kit manufacturer, some of Mozambique’s health clinics used expired HIV test kits. This occurred because the health or clinical staff did not manage inventory by expiration date. In addition, a memorandum from Mozambique’s Ministry of Health national reference laboratory for diagnosis of HIV stated that it was acceptable to use test kits within 90 days after the expiration date. One of the implementing partners also reported unclear procedures on how to distribute test kits that were close to the expiration date. The use of expired test kits may affect the accuracy of the HIV test results used to determine whether a person should be on antiretroviral therapy, potentially endangering the patient being tested.

The manufacturer of the Unigold HIV test kits that were provided to the Ministry of Health recommended that expired or faulty HIV test kits not be used because they had a high probability of providing either false negative or false positive results that could severely impact the medical care of clients. The cognizant technical officer (CTO) for the Partnership, in USAID’s Bureau for Global Health, also agreed that avoiding the use of expired test kits for HIV testing was the best practice.

Three of the four USAID implementing partners visited were aware that some health facilities were using expired test kits. Implementing partner officials stated that they received verbal instructions from the Ministry of Health that expired HIV test kits could be used within 6 to 12 months after the expiration date. The country representative of one

---

<sup>8</sup> JSI/Deliver, with PEPFAR funding received from USAID/Mozambique, is working with the Mozambique Ministry of Health’s Central Medical Stores (CMAM) to improve CMAM’s ability to quantify, procure, and distribute medicines and medical supplies.

of the implementing partners that had expired kits provided a copy of the notice from Mozambique's Ministry of Health National Reference Laboratory for the diagnosis of HIV indicating that the expired test kits could still be used up to 90 days after the expiry date.



Photograph of CD4 counting machine and the technician in Ponta Gea Health Center Laboratory in Beira, Sofala province. (Photograph taken by a RIG Pretoria auditor in March 2008.)

The SCMS preliminary assessment of March 13—17, 2006, reported that the warehouse and health clinical staff needed knowledge of inventory control management skills for expiring drugs (first to expire, first out). For example, one Mozambique Ministry of Health official noted that HIV test kits that expired in July 2005 were still being used in the city of Nacala in Nampula Province.

In one of the Maputo sites visited, the clinical staff stated that in January and February 2008, they received expired test kits from the central warehouse. The staff did not use these test kits, which had expired in 2005, and returned them to the central warehouse. Although in this instance the clinical staff knew what to do when they received the expired test kits, staff in other clinics might not have known what to do.

PEPFAR commodities are under the mission's oversight through the implementing partners' programs. Although the health clinics are under the oversight of Mozambique's Ministry of Health, the mission should ensure that compromised PEPFAR commodities are not used or distributed to end users. The use of expired test kits could affect the accuracy of HIV test results in determining whether a person should be on antiretroviral therapy, which in turn could endanger the intended recipient.

Although the full extent to which expired PEPFAR commodities in Mozambique are being used is not known, the above-mentioned issues mean that additional instances of expired commodity use could exist. Such instances could be seriously detrimental to the health of PEPFAR beneficiaries in Mozambique. Therefore, to help prevent future use of expired PEPFAR commodities, this audit makes the following recommendation.

*Recommendation No. 1: We recommend that USAID/Mozambique issue and implement guidance to its implementing partners prohibiting the use or distribution of expired PEPFAR commodities and requiring that expired commodities be returned to the provincial and central warehouses for disposal.*

## **Donor Coordination Is Needed to Minimize Drug Expirations**

Summary: The Supply Chain Management System official in Mozambique reported that a number of bottles of lamivudine oral suspension were to expire at the end of May 2008. The *Standards for Internal Control in the Federal Government* states that an organization's internal control should provide reasonable assurance that effectiveness and efficiency of operations, including the use of and safeguarding of resources, are being achieved. The lack of donor coordination caused an oversupply of donated commodities and eventually the expiration and waste of these commodities. When donors coordinate their programs and avoid duplicating their efforts, the problem of expired essential antiretroviral drugs can be substantially reduced.

Large quantities of expired drugs procured by PEPFAR are stored at medical storage warehouses. During the audit team's visit, the Beira Central Warehouse had 244 expired bottles of antiretroviral oral solution lamivudine (brand name Epivir), which is used to treat HIV-positive children. The SCMS official stated that these commodities were from the Centers for Disease Control and Prevention (CDC). He reported that an additional 3,034 bottles of lamivudine were expiring in May 2008. The total value of these commodities is estimated at \$8,294, including freight and insurance.

The *Standards for Internal Control in the Federal Government* states that internal control should provide reasonable assurance that effectiveness and efficiency of operations, including the use of and safeguarding of entity's resources, are being achieved. Although USAID/Mozambique is facilitating coordination among most of its HIV/AIDS implementing partners, it lacked effective coordination with other donors resulting in duplication and eventual oversupply of donated commodities.

This lack of coordination was evidenced when multiple donors provided the same commodities in Mozambique, resulting in an oversupply, which, in some cases, led to the expiration of unused commodities. In addition, the shortage of health professionals in Mozambique meant that (1) the program did not roll out as planned and (2) doctors were assigned to contain a cholera epidemic in other provinces and were not available to provide HIV testing and treatment for the targeted beneficiaries. As a result of these factors, the anticipated demand for the commodities was not realized. One provincial health district supervisor agreed that donors should coordinate their programs to avoid duplicating commodities. When donors coordinate their programs and avoid duplicating

their efforts, the problem of expiring essential antiretroviral drugs and HIV test kits can be substantially reduced.

According to one Bureau for Global Health officer, the acceptable percentage of loss due to expired or short-dated commodities is 2 percent. Although the dollar amount of expired commodities in Beira Central Warehouse is, by itself, not a significant amount, it is not known whether other types of commodities expired in other warehouses in Mozambique.

Expiring medical commodities have been reported in the past. For example, in FY 2005, the SCMS's preliminary assessment report stated that, globally, \$2 million in expired medicines were estimated to have been destroyed. However, this value might correspond to drugs that expired within the past several years, since destruction is not performed on a regular basis.

During the rapid scale-up of antiretroviral treatment, counseling, and testing, some PEPFAR commodities were procured without coordination. In 2006, the CDC, which was responsible for procuring all pediatric antiretroviral drugs in Mozambique, procured a large quantity of pediatric formulations. In addition, funds from other donors—as well as other PEPFAR funds—were used to procure pediatric antiretroviral drugs. However, many of these drugs could not be used before newer, more patient-friendly combined therapies became available.<sup>9</sup> USAID and SCMS have been working to strengthen donor coordination and communication with the Mozambique Ministry of Health to ensure that procurements are efficiently coordinated in order to avoid future overstocks.

Because of USAID/Mozambique's recent actions to ensure that PEPFAR commodity procurement is well planned and coordinated with other donors and U.S. Government agencies—such as regular donor meetings and coordinating the procurement of commodities with other donors to the national health system at the central level—this audit does not make any recommendations for this finding.

## **Better Commodities Storage Is Needed**

Summary: Under the USAID/Deliver Project, John Snow Inc., in collaboration with the World Health Organization, developed a list of 12 key points or guidelines that contain written directions for proper storage of health commodities and serve as a reference for logistics managers, warehouse managers and staff. However these guidelines were not always followed in Mozambique, in part because the Supply Chain Management System in Mozambique has not fully implemented standard operating procedures. According to storage guidelines, improper storage of commodities can decrease their shelf life or lessen their effectiveness.

---

<sup>9</sup> When better formulations became available, the decision was made to order the new formulations, even before the old stock was finished.

Under the USAID/Deliver Project,<sup>10</sup> John Snow Inc. (JSI/Deliver), in collaboration with the World Health Organization, developed a list of 12 key points that all storage facilities along the supply chain should follow to ensure quality health commodities for the end user. The guidelines are printed on a laminated sheet that should be displayed in warehouses and other storage facilities. These guidelines, which are based on World Health Organization standards, serve as a reference for logistics managers, warehouse managers, and staff. Pursuant to those guidelines, the contractor's FY 2007 work plan stated that its objectives included (1) establishing and operating a safe, secure, reliable, and sustainable supply chain to procure and distribute pharmaceuticals and other commodities needed to provide care and treatment for people with HIV/AIDS and related infections; and (2) providing freight forwarding and warehousing services to promote the efficient and secure delivery of procured supplies.

In general, most of the warehouses visited complied with most of the guidelines for proper commodities storage. For example, most of the facilities visited appeared to be reasonably secured, antiretroviral drugs and test kits were stacked no more than 8 feet high and were at least 4 inches off the floor on pallets or shelves, and most were stored away from direct sunlight. The warehouse stores were organized according to the types of medicine. Products that were ready for distribution were arranged so that identification labels and expiration dates and/or manufacturing dates were visible. However, the audit team noted that a number of antiretroviral products would expire within the next 30 to 60 days. Further, some of the sites visited did not comply with JSI/Deliver guidelines for proper storage of health commodities. For example:

- Antiretroviral drugs were not always stored in a secured facility.
- Some antiretroviral drugs were stacked against the storeroom walls.
- Boxes of HIV rapid test kits and other antiretroviral drugs were not stacked on pallets.
- Some antiretroviral drugs were not stored between 25°C and 30°C.
- Some boxes were stacked upside down, with identification labels, expiration dates, and manufacturing dates not clearly visible.
- There was mildew on some boxes of HIV test reagents.
- Fire extinguishers were not on hand at some facilities.

**Antiretroviral drugs were not always stored in a secured facility** – The warehouse in Matola was being leased by the SCMS on a temporary basis. The warehouse was used for storing PEPFAR commodities, including test kits and antiretroviral drugs, in the same general area. This warehouse did not have proper control and security for antiretroviral drugs. For example, the warehouse did not have a designated space for the consignment of test kits and antiretroviral drugs. Stock was not kept in a secure designated storage area, with a single pharmacist responsible for receiving and shipping out medicines. The SCMS official acknowledged this problem and stated that warehousing procedures were a work in progress and standard operating procedures were being developed.

**Some antiretroviral drugs were stacked against the storeroom walls** – In the Maputo central warehouse, some boxes of antiretroviral drugs were stacked against the

---

<sup>10</sup> The goal of JSI/Deliver is to build capacity within Mozambique's Ministry of Health to strengthen the forecasting, procurement, storage and distribution of essential drugs, contraceptives, and HIV/AIDS commodities.

storeroom walls. The warehouse manager stated that there was not enough space to store the commodities. According to storage guidelines, storing drugs away from the walls promotes air circulation and eases movement of stock, cleaning, and inspection.

**Some antiretroviral drugs were not stored between 25°C and 30°C** – As stated by the manufacturers' specifications attached to the consignment boxes, antiretroviral drugs require constant storage in a controlled temperature not exceeding 25°C to 30°C (77°F to 86°F). However, one of the warehouses visited in Maputo did not have a climate-controlled or designated area to store temperature-sensitive medications and test kits. Because the warehouse did not have air conditioning, the temperature inside the warehouse was very hot. At the time of the audit team's visit, the temperature outside was 34°C (93°F). On hotter days, this warehouse may experience temperatures in excess of 40°C (104°F), contrary to the manufacturers' recommended storage temperature. Exposure to extreme high temperatures can affect the shelf life and effectiveness of the drugs.

**Boxes of HIV rapid test kits and antiretroviral drugs were not stacked on pallets** – Some boxes and other antiretroviral drugs were placed on the cement floor of one warehouse, contrary to JSI/Deliver *Guidelines for Proper Storage of Health Commodities*. The warehouse manager acknowledged that there was a shortage of pallets for storing the commodities. Pallets are used to elevate commodities above the floor to prevent damage and allow air circulation. For large commodities, warehouse pallets enable commodities to be moved with a forklift.

**Some boxes were stacked upside down, with identification labels, expiry dates, and manufacturing dates not clearly visible** – Guidelines printed on the medicine boxes require that boxes be arranged with the arrows pointing up to avoid spills and damage. At Maputo Central Warehouse, some boxes of antiretroviral drugs were not stacked according to these guidelines. The identification labels and arrows on some of the boxes were pointing down and the expiry or manufacturing dates for some boxes were not clearly visible.

**Mildew was found on boxes of HIV test reagents** – Mildew was found on boxes of HIV test reagents at the Provincial Depository of Medications warehouse in Maputo. Although the warehouse had a refrigerator for storing antiretroviral drugs and rapid test kits, the boxes of reagents stored in the refrigerator had mildew growing on them. The fact that warehouse staff did not notice the mildew until the day of the audit team's visit indicated inadequate monitoring of this stock.

**Matola warehouse lacked fire extinguishers** – The warehouse in Matola that is leased by the Supply Chain Management System for storage of essential commodities did not have any fire extinguishers. At another storage warehouse, which had fire extinguishers, staff members were not trained in their use. The SCMS official indicated that standard operating procedures were being developed to address this issue.



Photograph of improperly stacked commodities. Commodities on the left were not placed on pallets. Another box is shown stored upside down. (Photo taken by RIG/Pretoria auditor at Maputo Central Warehouse in March 2008.)



Photograph of mildew on boxes of HIV test reagents. (Photo taken by RIG/Pretoria auditor at Matola Provincial Warehouse in March 2008.)

The problems described above were partly due to the lack of training for warehouse staff and the transition of responsibility for the storage of commodities from Medimoc (formerly a state-owned but now a private company) to the Center for Medicines and Medical Supplies when Medimoc's contract ended in December 2007.<sup>11</sup> A contributing factor was that the SCMS in Mozambique had not fully implemented standard operating procedures for ensuring the following:

- That all staff and operations positions are clearly described so that each staff member knows how to perform specific tasks and also to ensure that every activity is accounted for
- That all stock received by the Center for Medicines and Medical Supplies warehouse is received and processed for storage in accordance with JSI/Deliver guidelines and supplier requirements

In addition to the above program constraints, the mission did not conduct regular site visits to the warehouses to ensure that commodities were being stored in accordance with the JSI/Deliver guidelines; nor did the mission incorporate standards for commodity storage into its partners' work plans to ensure that partners assigned a higher priority to commodity storage practices.

According to an SCMS official, the warehouse in Maputo is a work in progress and a temporary solution. Moreover, according to this official, standard operating procedures to address these problems are being planned for all the warehouses. Plans call for consolidating the current 11 locations into 4 warehouses in 3 locations in Matola, Maputo and Beira. Matola will be the main warehouse, as it is by far the largest.

---

<sup>11</sup> The Center for Medicines and Medical Supplies of Mozambique's Ministry of Health is responsible for procuring, importing, warehousing, and distributing medicines used by the Public Health System.

To strengthen commodities storage and ensure delivery of quality health commodities, this audit makes the following recommendations:

*Recommendation No. 2: We recommend that USAID/Mozambique, in collaboration with the Supply Chain Management System and the Ministry of Health's Center for Medicines and Medical Supplies, incorporate measures to improve commodity storage conditions into project work plans.*

*Recommendation No. 3: We recommend that USAID/Mozambique, in cooperation with the Supply Chain Management System, develop and implement a monitoring and evaluation plan for PEPFAR commodity storage to ensure that commodities are stored in accordance with John Snow International/Deliver Guidelines for Proper Storage of Health Commodities.*

## **Inventory Records Not Always Updated**

Summary: Inventory stock cards were not always updated, contrary to Mozambique Ministry of Health's Center for Medicines and Medical Supplies requirements. As a result, stock outages have occurred at some warehouses and HIV/AIDS test kits were not on hand in other health facilities. In addition, without proper control over commodities, there is an increased risk that theft or loss of commodities will go undetected. This happened because many of the newly recruited staff had very little or no experience working in supply chain management of medicines. In addition, some staff lacked the basic skills necessary to operate the computerized system that the Center for Medicines and Medical Supplies uses to order, track and report on medicines. A sustainable system that includes training staff and strengthening human capacity on inventory management and reordering stock will substantially improve inventory management and help avoid stockouts.

The Center for Medicines and Medical Supplies' *Provincial Medicine Depot Procedures Manual* requires that inventory stock cards be updated each time there is an inward or outward movement of inventory. Although inventory stock cards were maintained for receiving and shipping out of commodities, and bin cards were maintained for each item, a running balance was not always recorded. For example:

- The pharmacist at one health center stated that because of a lack of staff and the high volume of work, staff update the stock cards only when they conduct monthly inventory to ensure that the number of stocks match the inventory cards at the end of the month.
- A test count at a health center pharmacy in Manica Province revealed that eight bottles (480 tablets) of the antiretroviral drug triomune were not accounted for. The regular duty pharmacist explained that when he was away on leave, the replacement pharmacist did not update the stock cards for antiretroviral drugs dispensed during the week because of a heavy workload. As a result, antiretroviral drugs were dispensed but not recorded. Since the stock cards were not updated regularly, these drugs were not properly accounted for.



- In Beira, a test count of antiretroviral drugs revealed that 28.5 bottles (1,710 tablets) of antiretroviral drugs (lamivudine/stavudine) were not recorded on the inventory stock card. The pharmacist stated that he had been working there for only 1 week and was unaware of this matter. The chief nurse contacted the former pharmacist and asked him to return to the pharmacy to account for the antiretroviral drugs. The former pharmacist explained that there was a miscount during inventory and in updating the inventory stock cards. A letter from the pharmacy indicated that the missing 28.5 bottles had been accounted for.
- At other health care centers, the HIV rapid test kits ran out because, instead of relying on inventory records, the clinical staff only reordered when their supply of test kits ran out. The health official stated that stock cards were updated at the end of the month.
- There was also inconsistent recording of inventory stockcards. Some stocks were recorded as number of boxes, while others were recorded according to the quantities inside the boxes (e.g., number of bottles, tablets/pills).

These problems were attributed to the lack of a sustainable system that includes training staff and strengthening human capacity on inventory management and reordering stock to avoid stockouts. The Maputo and Beira warehouses used for storing PEPFAR commodities had the English version of the JSI/Deliver *Guidelines for Proper Storage of Health Commodities* because a Portuguese version was not available. As a result, warehouse staff were not able to fully use the guidelines.<sup>12</sup>

Another cause of the problems was the Mozambique Ministry of Health's decision that the warehousing and distribution activities of Medimoc be transferred to the Center for Medicines and Medical Supplies when the contract with Medimoc ended in December 2007. The transition had major implications for the technical capacity of warehouse staffing and ordering of commodities through the Integrated Medicines Logistics Management Information System.<sup>13</sup> All the experienced Medimoc employees were replaced by new inexperienced Center for Medicines and Medical Supplies employees who lacked the requisite training. Many had no warehouse experience.

The current record-keeping system at pharmacies and storage warehouses in Maputo, Beira, Manica, and Quelimane is a combination of manual recording and computer-based systems. During site visits, two warehouse managers stated that they were having problems with the Integrated Medicines Logistics Management Information System software, though this was partly due to Internet connectivity problems. They explained that the software would not allow them to update stocks of medicine in the warehouse. Data compiled from inventory cards are entered in the Integrated Medicines Logistics Management Information System and centrally managed by the Center for Medicines and Medical Supplies; however, inventory cards were not always updated. For example:

---

<sup>12</sup> The audit team's interviews with warehouse staff required a Portuguese translator, and it was evident that the people manning the warehouses had little, if any, understanding of English.

<sup>13</sup> The Logistics Management Information System is the Center for Medicines and Medical Supplies' record-keeping and reporting system.

1. Some antiretroviral drugs had inventory stock cards that had quantities reflecting when the consignments were received. However, these stock cards were not always updated when the warehouse shipped out the drugs to districts and provinces. Some antiretroviral drugs had no inventory stock cards.
2. In Maputo Central Warehouse, it takes 1 week before the inventory cards are updated for items received or shipped out. The pharmacist explained that the staff started using inventory cards only when they had an inventory count on December 31, 2007.

Health centers and storage warehouse managers who do not regularly update stock cards cannot ensure a continuous supply of HIV test kits and essential antiretroviral drugs at the health centers and ensure that clients receive the services they need. In addition, without proper control over commodities, there is an increased risk that theft or loss of commodities will go undetected. To address this finding, the audit makes the following recommendation:

*Recommendation No. 4: We recommend that USAID/Mozambique, in collaboration with the Supply Chain Management System, (1) provide a Portuguese translation of the John Snow International/Deliver Guidelines for Proper Storage of Health Commodities and distribute the guidelines to all warehouses storing PEPFAR commodities as a reference for warehouse personnel and (2) develop an action plan with milestones to conduct inventory management training as part of ongoing and regular site visits.*

## **Lack of Site Visits**

Summary: Contrary to USAID guidance, USAID/Mozambique's HIV/AIDS team did not conduct sufficient site visits to its implementing partners for its HIV/AIDS program because the mission's HIV/AIDS team was understaffed and multiple approvals for site visits were required. Without active monitoring through site visits, the mission does not have reasonable assurance that the partners are carrying out activities that contribute to achieving the mission's HIV/AIDS program objectives.

USAID Automated Directives System (ADS) 303.2(f) states that the cognizant technical officer (CTO) is responsible for ensuring that USAID exercises prudent management of assistance awards and for making the achievement of program objectives easier by monitoring and evaluating the recipient and its performance during the award. This is accomplished in part by maintaining contact, including site visits and liaison, with the recipient.

Contrary to USAID policies, USAID/Mozambique did not conduct sufficient site visits to its HIV/AIDS program implementing partners for FY 2007. For example, during the audit team's site visit to Sofala province, the major USAID implementing partner reported that no one from USAID had previously visited the site. The activity manager reported that site visits were usually conducted in conjunction with high-level visitors, which did not allow for detailed program monitoring.

The lack of site visits reportedly occurred because USAID/Mozambique's HIV/AIDS team was understaffed; as a result, very few site visits were conducted. Only one CTO was responsible for overseeing four implementing partners for the HIV/AIDS prevention, treatment, and care programs. The mission reported that it has 20 health team staff vacancies and that it is hiring staff to fill these vacancies. Another monitoring constraint was the requirement to obtain permission from the Ministry of Health, provincial directors, and medical chiefs before conducting site visits. Obtaining all of these approvals made it even more challenging for USAID mission staff and SCMS staff to make site visits to health facilities and warehouses storing PEPFAR commodities.

Without active monitoring through site visits, the mission does not have reasonable assurance that the partners are carrying out activities that contribute to achieving the mission's HIV/AIDS program objectives. To strengthen the monitoring of program activities, this audit makes the following recommendations:

*Recommendation No. 5: We recommend that USAID/Mozambique develop action plans to conduct regular site visits to health facilities and storage warehouses that use and store PEPFAR commodities.*

*Recommendation No. 6: We recommend that USAID/Mozambique collaborate with Mozambique's Ministry of Health to develop procedures to provide USAID/Mozambique with improved access to Ministry of Health project sites.*

## **Reported Results Need to Be Verified and Validated**

Summary: ADS 202 states that monitoring the quality and timeliness of key outputs produced by implementing partners is a major task of the cognizant technical officer and strategic objective teams. The audit determined that mission officials were not validating or verifying data reported by its implementing partners. As a result, the mission was unaware that data reported by partners were cumulative instead of the required annual data. A number of factors contributed to this situation, including, (1) what the mission considered to be vague guidance from the OGAC and 2) the fact that mission officials did not see the utility in verifying partner data before forwarding the data to the CDC monitoring and evaluation specialist who coordinated PEPFAR reporting for Mozambique, because this individual was already receiving results reports directly from the same implementing partners. Without actively monitoring and validating data through site visits, the mission did not have reasonable assurance that the data reported and used for performance-based decision making were accurate.

According to ADS 202.3.6, monitoring the quality and timeliness of key outputs produced by implementing partners is a major task of CTOs and strategic objective teams. ADS 202.3.6 further states that outputs are specifically described in contract statements of work and grant agreement program descriptions. Outputs are critical to achieving results. Delays in completing outputs, or problems in output quality, provide an early warning that results may not be achieved as planned. Timeliness of key outputs may affect the achievement of performance targets that the strategic objective teams present in the annual report. Early action in response to problems is essential in managing for results.

The audit determined that even when site visits were made, the data reported to USAID/Mozambique's health strategic objective team by its implementing partners were not validated or verified. According to the mission, the monitoring and evaluation specialist, who fills an interagency position at CDC, not only receives data through USAID but also receives data directly from USAID's partners for all the results related to the annual and semi-annual reports. For that reason, the mission did not check the HIV program indicator data for compliance with USAID data quality standards before sending it to CDC. The audit also determined that the CTO did not check or verify data during site visits. Finally, according to mission officials, the guidance issued by the OGAC was not clear as to whether PEPFAR fell within USAID standard procedures for monitoring and evaluation.

As a result of the lack of validation, the mission was not aware that data reported by partners were cumulative instead of the required annual data. These erroneous data could be used to make inappropriate programmatic decisions for future activities and could be passed on to USAID/Washington and to outside parties. USAID/Mozambique needs to verify the results reported by the implementing partners at the source.

Without actively monitoring the validity of reported data through site visits and documentation, the mission did not have reasonable assurance that data reported and used for performance-based decision making were accurate. As a result, this audit makes the following recommendation:

*Recommendation No. 7: We recommend that USAID/Mozambique develop specific procedures to validate reported data from service providers in conjunction with site visits.*

## **Lack of USAID Branding**

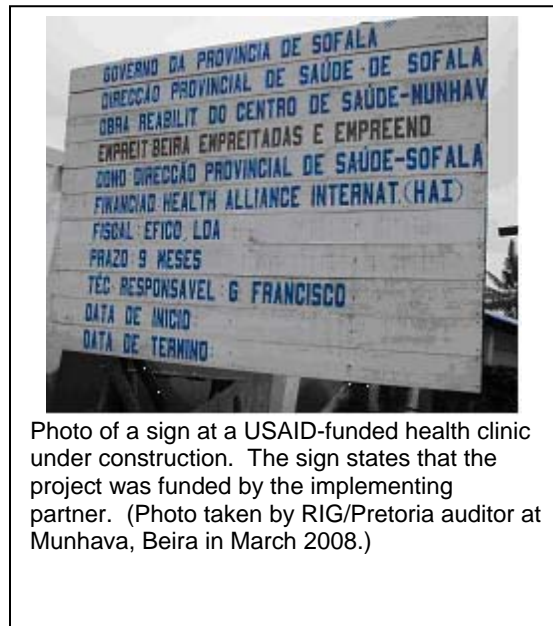
<p>Summary: USAID/Mozambique's HIV/AIDS care and prevention project sites implemented by two major USAID partners were not branded with the USAID logo. USAID policy requires that USAID projects be permanently marked as attributable to U.S. Government assistance. According to an Agency notice, cognizant technical officers are responsible for monitoring compliance with the branding requirements. Where recipients fail to comply with the agreed marking plan, agreement officers should initiate corrective action. The lack of branding occurred because the mission did not verify implementing partners' adherence to USAID policies on branding and marking. Consequently, the objective of USAID's branding campaign—to better publicize U.S. Government foreign assistance—is not being achieved.</p>
--

Although the partners consistently included their own logos on all project sites, they did not consistently include the USAID logo. USAID branding policies were not adhered to at the project sites of two implementing partners visited. These health facilities, one completed in FY 2007 and one under construction, had the implementers' names on the project signs: the signs stated that the projects were financed by the implementing partners, but gave no credit to USAID. If the mission had conducted site visits and had checked the branding, the issue of branding could have been addressed with the implementing partners.

ADS 320.3.1 states that all USAID-funded foreign assistance must be branded through use of a branding strategy and marked through use of a marking plan. Employees involved in project implementation must ensure that USAID implementing partners communicate that the American people are providing the assistance. Further, section 4.6 of USAID's standard graphics manual on branding states that marking program sites is an important part of the Agency's branding campaign.

In addition, Agency notice 10758, issued on December 20, 2005, states that CTOs are responsible for monitoring compliance with marking and branding requirements. Where recipients fail to comply with the marking plan, agreement officers must initiate corrective action. The failure to post the USAID branding logo occurred because the mission did not verify the implementing partners' adherence to branding and marking regulations.

This lack of marking impairs achievement of the objectives of USAID's branding campaign that requires foreign assistance to be communicated to the host country audiences and that implementing partners create awareness and positive attitudes that will identify U.S. development (along with diplomacy and defense) as one of three pillars of American national security.



To ensure that implementing partners meet USAID branding requirements and that U.S. development assistance is recognized, this audit makes the following recommendation:

*Recommendation No. 8: We recommend that USAID/Mozambique develop procedures and implement a plan to verify partner compliance with USAID's branding requirements.*

## OTHER MATTERS

### Site Visit to Regional Distribution Center, Centurion, South Africa

The regional distribution center in Centurion, South Africa, is a warehouse operated by Fuel Africa, a member of the Partnership for Supply Chain Management Consortium (Partnership).<sup>14</sup> Fuel Africa has a contract with the Partnership to provide warehousing and logistics support to ensure that commodities are delivered to countries participating in the Partnership's system. The role of Fuel Africa is to receive commodities that the Partnership has ordered from various manufacturers, store and secure the commodities, and arrange shipment of the commodities to their final destination on specific order by the Partnership. Fuel Africa bills the Partnership on a pallet-per-month basis and also bills the Partnership for activities involved in receiving, packaging, and shipping commodities.

The SCMS regional distribution center in Centurion was established to collaborate with in-country and international partners to ensure a cost-effective, reliable, and steady supply of quality medicines for HIV/AIDS prevention, care, and treatment. One of the SCMS team members is Pharmaceutical Healthcare Distributors (PHD) of South Africa, a member of the Fuel Logistics Group of companies. PHD is a commercial service for drug stockholding and delivery to various locations across the region from different drug manufacturers. Its services include secure warehousing; inventory management; and drug distribution to individual wholesalers, retailers, hospitals, pharmacies, clinics, and physicians' offices. The SCMS regional distribution center in Centurion supplies essential HIV/AIDS drugs and other commodities to Mozambique and the neighboring countries of Botswana, Namibia, Zambia, Zimbabwe, and South Africa.

The audit team observed warehouse conditions, conducted test counts of selected antiretroviral drugs and HIV test kits, reviewed dispatch records of shipments to Mozambique, reviewed documentation for samples of commodities received from manufacturers, and interviewed distribution center staff. The warehouse was clean and well organized, and commodities were properly and securely stored; however, some expired and expiring antiretroviral drug oral solutions, stavudine and lamivudine, were found at the warehouse.

### Expired PEPFAR Commodities at The Regional Distribution Center

Summary: The *Standards for Internal Control in the Federal Government* states that internal control should provide reasonable assurance that effectiveness and efficiency of operations, including the use and safeguarding of an entity's resources, are being achieved. Because of a lack of donor coordination, an oversupply of donated

<sup>14</sup> Because the center provides commodities to several countries, and not just to Mozambique, and the center is not under the supervision of USAID/Mozambique, the audit team's visit to the regional distribution center in South Africa did not influence the answer to the audit objective.

commodities, and the lack of Supply Chain Management System implementation of guidance in dealing with expiring commodities, the Centurion regional distribution center in South Africa was storing significant quantities of expired PEPFAR commodities. When donors coordinate their programs and avoid duplicating their efforts, the problem of expiring essential antiretroviral drugs can be substantially reduced. Further, efficient management saves the cost of storing and disposing of expired PEPFAR commodities.

The goals of PEPFAR include encouraging all partners, including organizations and other host governments, to coordinate and adhere to sound management practices. Similarly, the *Standards for Internal Control in the Federal Government* states that internal control should provide reasonable assurance that effectiveness and efficiency of operations, including the use of and safeguarding of an entity's resources, are being achieved. One aspect of efficient and effective management is reducing potential programmatic inconsistencies or overlaps.

At the time of the audit team's visit, the regional distribution center at Centurion reported that 1,366 bottles of lamivudine oral solution and 26,733 bottles of stavudine 1 mg powder oral solution were expired. The total value of these expired commodities was \$41,063. In the case of the pediatric stavudine, the USAID Global Health Bureau's SCMS adviser stated that the problem occurred because another donor provided the same commodities in Mozambique and Zambia after they were already ordered by the regional distribution center, resulting in the excess commodities at the center. In the case of lamivudine, the demand for this pediatric antiretroviral drug was much lower than expected.

These commodities were shipped to the regional distribution center in September and December 2006 and received between January and February 2007. According to the SCMS representative in Pretoria, she received a report highlighting short-dated commodities<sup>15</sup> from the regional distribution center on February 2, 2008 and informed SCMS staff in Washington. From there, the decision was made to donate as much of the commodities as possible instead of destroying them. The SCMS standard operating procedures on expiry management state that the inventory manager should review the Balance of Shelf Life Remaining Report weekly. Batches of a product that have 1 year to 18 months remaining shelf life are flagged for expedited issuance wherever possible.

Inadequate donor coordination resulted in the oversupply of donated commodities, which in turn contributed to the expiration of unused commodities. When the issue of expiring PEPFAR commodities was brought to the attention of the CTO, he stated that the project is currently tracking short-dated warehoused products that represent a fraction of 1 percent of the value of products procured to date, which is below the industry average of 2 percent. However, the audit team believes that every effort should be made to ensure that these essential drugs reach the intended beneficiaries before the drugs expire.

When donors coordinate their programs and avoid duplicating their efforts, the problem of expiring essential antiretroviral drugs can be substantially reduced. However, since this issue impacts USAID as a whole and this report is directed specifically to USAID/Mozambique, this issue will be referred to OIG's Performance Audits Division for inclusion in its report summarizing the results of this and the other mission-level audits.

---

<sup>15</sup> This report highlights stock that has 50 to 70 percent of its shelf life remaining and that, as a result, must be managed to minimize expiration.

Accordingly, a recommendation regarding this aspect of donor coordination is not included in this report.



# EVALUATION OF MANAGEMENT COMMENTS

In response to the draft report, USAID/Mozambique concurred with recommendation nos. 1 through 7 and provided corrective action plans to implement each recommendation. USAID/Mozambique did not concur with recommendation no. 8, as discussed further below.

In response to recommendation no. 1, concerning issuing and implementing guidance to implementing partners prohibiting the use or distribution of expired PEPFAR commodities, the mission concurred and stated that it is circulating draft guidance on this issue and plans to implement and distribute guidance to implementing partners by January 31, 2009, prohibiting the use or distribution of expired PEPFAR commodities and requiring implementers to return expired commodities for disposal. Therefore, a management decision has been reached for recommendation no. 1.

In response to recommendation no. 2, concerning incorporating measures to improve commodity storage conditions into project work plans, the mission concurred and stated that it is developing a revised work plan that explicitly incorporates measures to improve commodity storage conditions and set a target implementation date of January 31, 2009. Therefore, a management decision has been reached for recommendation no. 2.

In response to recommendation no. 3, concerning developing and implementing a monitoring and evaluation plan for PEPFAR commodity storage to ensure that commodities are stored in accordance with John Snow International/Deliver *Guidelines for Proper Storage of Health Commodities*, the mission concurred and stated that it has provided guidance in this regard to the Ministry of Health and has revised its site visit documentation form to include observation of commodity storage conditions and set a target implementation date of January 31, 2009. Therefore, a management decision has been reached for recommendation no. 3.

In response to recommendation no. 4, to (1) provide a Portuguese translation of the John Snow International/Deliver *Guidelines for Proper Storage of Health Commodities* and distribute the guidelines to all warehouses storing PEPFAR commodities and (2) conduct inventory management training and regular site visits, the mission concurred and stated that guidelines for proper storage have been translated into Portuguese, are being vetted through the Ministry of Health approval process, and will be distributed to all warehouses containing U.S. Government-funded commodities. Approval of the translation is expected by March 31, 2009. Inventory management training has been incorporated into Supply Chain Management System and Ministry of Health work plans and the work plans will be finalized by January 31, 2009. Therefore, a management decision has been reached for recommendation no. 4.

In response to recommendation no. 5 concerning conducting regular site visits to health facilities and storage warehouses using and storing PEPFAR commodities, the mission concurred and responded that site visits were hampered by a severe shortage of technical personnel as the PEPFAR program expanded rapidly. With additional staff,

including two staff members dedicated full time to the commodity and logistics field, site visits have increased, and a major assessment of warehouses was carried out and communicated to the Minister of Health and senior staff. An action plan to ensure that site visits are conducted regularly to health facilities and storage warehouses that use and store PEPFAR commodities will be completed by January 31, 2009. Therefore, a management decision has been reached for recommendation no. 5.

In response to recommendation no. 6, to develop procedures to provide mission personnel with improved access to Ministry of Health project sites, the mission concurred and stated that mission staff met with the Minister of Health and his senior staff and together they were moving toward approval for appropriate access to Ministry of Health project sites by January 31, 2009. Therefore, a management decision has been reached for recommendation no. 6.

In response to recommendation no. 7, to developing specific procedures to validate reported data from service providers in conjunction with site visits, the mission concurred and stated that written mission procedures are already in place outlining the need to validate reported data from service providers and partners on a regular and timely basis. However, to reinforce these procedures, the mission will conduct training by February 28, 2009, on validating data quality during site visits. Therefore, a management decision has been reached for recommendation no. 7.

In response to recommendation no. 8, to develop procedures and implement a plan to verify partner compliance with USAID's branding requirements, the mission requested that this recommendation be deleted from the final report, stating that only two instances were noted in the audit report and that branding issues were outside the scope of the audit. The mission also confirmed that the two instances cited in the audit report had been corrected. However, these actions do not address the possibility that other branding issues could exist with other USAID/Mozambique partners. A management decision for this recommendation will be reached when USAID/Mozambique develops specific procedures and implements a plan for verifying compliance by all of its partners with USAID's branding requirements in accordance with Automated Directives System 320.

Appendix II contains management comments in their entirety.

# SCOPE AND METHODOLOGY

## Scope

We conducted this audit in accordance with generally accepted Government auditing standards. The 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. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Fieldwork was conducted at USAID/Mozambique and at selected sites throughout Mozambique from March 4 to March 28, 2008. We also performed fieldwork at the Partnership for Supply Chain Management (Partnership) regional distribution center in Centurion, Pretoria, South Africa, on April 15, 2008, and conducted followup discussions with USAID Global Health Bureau representatives from April 7 to May 2, 2008.

The objective of the audit was to determine whether USAID/Mozambique procured, deployed, and warehoused its President's Emergency Plan for AIDS Relief (PEPFAR) commodities to help ensure that intended results were achieved, and to determine what the impact has been. In conducting the audit, we assessed the effectiveness of internal control related to USAID/Mozambique's PEPFAR program.

The scope of the audit was limited to testing commodities procured through the Supply Chain Management System (SCMS) in Mozambique, USAID/Mozambique's primary partner for the PEPFAR commodity procurement. The scope included verifying the number of individuals receiving antiretroviral therapy on a test basis, a standard PEPFAR target related to the procurement of antiretroviral drugs and the number of individuals who were counseled and tested using PEPFAR commodities. The scope also included observing the presence and working condition of laboratory equipment supplied by Family Health International during fiscal year (FY) 2007, through its Mozambique prevention, care, and treatment program to the 11 health facilities selected for site visits.

In planning and performing this audit, we assessed the effectiveness of internal control related to commodity procurement, storage, and distribution. This assessment included control over reporting the number of individuals on antiretroviral therapy and control over antiretroviral drug and HIV test storage conditions.

No prior audit findings directly affected the areas included in the scope of this audit.

## Methodology

To answer the audit objective, we interviewed USAID/Mozambique and implementing partner officials in Maputo. We also met with the Centers for Disease Control and Prevention official in Maputo, and with Mozambique's Ministry of Health officials in Maputo, Beira, Chimoio, and Quelimane. We reviewed and analyzed the 2007 country operational plan for Mozambique's, the 2007 PEPFAR annual performance reports,

selected partners' work plans and quarterly progress reports, and mission and partner trip reports.

We conducted site visits to the Partnership's warehouse in Maputo, four provincial storage warehouses, and 11 health facilities. At the storage warehouses we observed storage conditions, conducted test counts of selected antiretroviral drugs and test kits, interviewed responsible staff, and inquired as to the availability of essential medicines and laboratory supplies. At the health facilities, we observed storage conditions in storerooms, dispensaries, and laboratories; conducted test counts of selected antiretroviral drugs and test kits; observed the existence and working condition of laboratory equipment; inquired as to the availability of essential medicines and laboratory supplies; tested the accuracy of the reported number of individuals on antiretroviral therapy; reviewed monthly commodity ordering reports; and interviewed facility staff members. During these site visits, we also looked at USAID's implementing partners' compliance with branding policies found in Automated Directives System 320 for branding and marking USAID-funded programs, projects, public communications and commodities.

We judgmentally selected for site visits 11 health facilities within four provinces supported by USAID/Mozambique prevention, care, and treatment programs. We also conducted site visits at seven storage warehouses and the regional distribution center.

At 8 of the 11 health facilities visited, we reviewed results for the number of individuals on antiretroviral therapy in settings supported by USAID/Mozambique as of September 30, 2007.

The table below shows the number of individuals on antiretroviral therapy and tested for HIV/AIDS at the health facilities visited during the audit.

<b>Health Facility Visited</b>	<b>Individuals on Antiretroviral Therapy</b>
Ponta Gea Health Center	345
Nhamaonha Health Center	199
Vanduzi Health Center	148
Munhava Health Center	434
Boane Health Center	542
<b>Total</b>	<b>1,668</b>

<b>Health Facility Visited</b>	<b>Individuals Tested for HIV/AIDS</b>
First of May Health Center	11,413
First of June Health Center	8,615
Bagamoio Health Center	6,003
<b>Total</b>	<b>26,031</b>

USAID/Mozambique reported 78,236 individuals on antiretroviral treatment against the target of 110,000. As for counseling and testing in settings other than preventing mother-to-child transmission of HIV, the mission reported a total of 422,209 individuals who received HIV counseling and testing.

We used the following definitions and materiality thresholds to answer the audit objective:

- PEPFAR commodities are products purchased with PEPFAR funding for the detection and treatment of HIV/AIDS, including antiretroviral drugs, test kits, lab equipment, lab supplies, and essential drugs and medicines used to prevent and treat HIV/AIDS-related opportunistic infections.
- Commodities were considered to have been procured if at least 90 percent of the procurement funding reported in the 2007 country operational plan was used to procure PEPFAR commodities during 2007.
- Commodities were considered to have been deployed if products procured were distributed to storage and/or health facilities and to patients on antiretroviral therapy.
- Commodities were considered to be properly warehoused if storage conditions at storage facilities visited met the Mozambique Ministry of Health's standards and John Snow International/Deliver storage guidelines. Conditions were considered "met" if most facilities visited met guideline standards; storage conditions were considered "not always met" if most facilities visited met guideline standards, but with qualifications or exceptions; and storage conditions were considered "not met" if most facilities visited did not meet guideline standards. See appendix III for the storage conditions tested.
- The Office of the Global AIDS Coordinator has not established any required targets or indicators for measuring commodity procurement results. Therefore, for purposes of this audit, we defined intended results as the procuring, storing, and distribution of commodities planned in the 2007 country operational plan, and achievement of the required 2007 PEPFAR indicator, "the number of individuals on antiretroviral therapy."

In addition, as part of the multicountry audit effort, we performed procedures at the regional distribution center in Centurion, Pretoria, South Africa, as described in "Other Matters" on page 20 of this report. Our visit to the regional distribution center and the results of procedures conducted there did not influence the answer to the audit objective.

# MANAGEMENT COMMENTS



December 5, 2008

## MEMORANDUM

**To:** Nathan Lokos, Regional Inspector General/Pretoria

**From:** Todd Amani, USAID/Mozambique Mission Director /s/

**Subject:** Audit of USAID/Mozambique's Procurement and Distribution of Commodities for the President's Emergency Plan for AIDS Relief (PEPFAR) (Report No. 4-56-08-xxx-P)

Thank you for the opportunity to review the formal draft of the Audit Report of USAID/Mozambique's Procurement and Distribution of Commodities for the President's Emergency Plan for AIDS Relief (PEPFAR). We greatly appreciate the time and effort that your staff devoted to conducting this PEPFAR commodities audit, your willingness to talk through various issues as you developed your initial draft recommendations, and your efforts to incorporate some of our comments in the draft report. The comprehensive and detailed nature of this audit helps build our confidence regarding our ongoing efforts to build a Ministry of Health system that provides the logistical support required to provide quality services throughout the country.

We are encouraged that your audit has determined that 1) "USAID/ Mozambique deployed and warehoused its PEPFAR commodities to help ensure that intended results were achieved", and 2) that USAID/Mozambique's "efforts to procure, deploy and warehouse commodities have significantly increased the number of individuals on antiretroviral therapy in Mozambique." As we emphasized at the outset of this audit, USAID does not have complete management control of the supply system of the Ministry of Health and must work effectively with the Ministry to be successful. In the area of commodity management, we have made tremendous progress in strengthening our relationship and joint management oversight with the Ministry of Health. The overall

U.S. Agency for International Development  
 JAT Complex  
 Rua 1231, n.º 41  
 P.O. Box 783  
 Maputo, Mozambique

Tel: (258) 21 35 20 00  
 Fax (258) 21 35 21 00  
[www.usaid.gov/mz](http://www.usaid.gov/mz)

U.S.A. Postal Address  
 2330 Maputo Place  
 U.S. Department of State  
 Washington, D.C. 20521-2330

findings of your audit help assure us that our partners have been effective in their close working relationship with the Ministry of Health to build their capacity and strengthen their logistics system in a very difficult working environment. It suggests that the combination of thoughtful and clear planning, effective product supply, and accessible delivery throughout the country is making progress toward revolutionizing the MOH system and helping innumerable clients.

We are pleased that this audit report on our PEPFAR commodities has affirmed that our activities are managed efficiently and are achieving the planned results to bring prevent and alleviate the suffering of thousands of people living with AIDS. The Mission has made great strides recently to provide broad distribution of these commodities to the public health facilities that need them. USAID is in approximately 120 of the nation's 144 districts supporting prevention, care, and treatment. USAID/Mozambique is now the co-chair of the donor-Ministry working group on commodity and logistics and has received approval from the Minister of Health to lead the development of a Master Logistics and Warehousing management plan to strengthen the national system and management controls. The Ministry of Health is demonstrating its commitment to the development and implementation of this plan by chairing weekly meetings to monitor and ensure rapid progress. USAID/Mozambique now has two staff members dedicated full time to the commodity and logistics field to ensure full engagement in this process. We believe that such commitment has led to the overall success of this logistics effort with the MOH. Your audit and its recommendations will help us improve our efforts and achieve even greater success.

### **Comments on specific audit findings.**

In the interest of creating an improved and accurate audit report, we recommend the following changes to the draft report:

#### **Procurement scheduling**

The draft report assesses accomplishments in the context of "falling short of the procurement goals" and asserts that "In FY 2007, USAID/Mozambique procured only 46 percent of its planned procurement of commodities reported in the 2007 country operational plan." Actually, USAID/Mozambique did not fall short of its 2007 procurement goals. The COP implementation period and related procurements could only begin after funding was made available; programmatically within the context of PEPFAR guidelines there was no shortfall of procurement under the 2007 COP. The Mission's initial funding allowance for commodity procurement under the 2007 COP was not made available until early July, 2007 and was then spent over the next year for planned procurements. While the COP is written as the program for a specific fiscal year, funding frequently does not arrive until late in that fiscal year. These funds are then used over the following 12-month period. We would appreciate it if you could correct the impression that USAID/Mozambique fell short of its procurement goals in the final draft.

## **Response to audit recommendations**

USAID/Mozambique concurs with Recommendations 1-7 and will take the following actions in response:

### **Use of Expired HIV Test Kits**

USAID/Mozambique has judiciously procured and shipped HIV test kits through the Ministry System. Our partners are conscious of the expiration dates and conscientious about adhering to the manufacturers restrictions regarding those dates. However, we realize that Ministry clinical and administrative personnel are not following these strict guidelines. Therefore the Mission is circulating draft guidance for the MOH on this issue. Implementation and distribution of guidance to implementing partners prohibiting the use or distribution of expired PEPFAR commodities, and requiring that implementers return expired commodities for disposal, should be completed by January 31, 2009.

### **Commodities Storage**

The Mission is developing a revised work plan that explicitly incorporates measures to improve commodity storage conditions. Finalization and initial implementation of the revised work plan should occur by January 31, 2009,

USAID/Mozambique has provided guidance to the Ministry for the development of a monitoring and evaluation plan and has revised its standard site visit documentation form to include observation of commodity storage conditions to ensure compliance with JSI/Deliver Guidelines for Proper Storage of Health Commodities. These measures should be in place by January 31, 2009

### **Inventory Records**

Guidelines for proper storage have already been translated into Portuguese and are being vetted through the Ministry of Health approval process. Upon formal Ministry of Health approval, these guidelines will be distributed to all warehouses containing USG-funded commodities. Ministry of Health review and concurrence is expected to be completed by March 31, 2009. Further, an action plan to conduct inventory management training has been incorporated into the current draft SCMS work plan and the Ministry of Health work plan. Both plans will be finalized by January 31, 2009.

### **Site Visits**

USAID/Mozambique's ability to carry out site visits was hampered by a severe shortage of technical personnel as the PEPFAR program expanded rapidly. With additional staff now on board, including two staff members dedicated full time to the commodity and logistics field, site visits have increased and a major assessment of warehouses was carried out and communicated to the Minister and his senior staff. An action plan designed to ensure site visits are conducted on a regular basis to health facilities and storage warehouses using and storing PEPFAR commodities will be completed by January 31, 2009.



### Improved access to Ministry of Health project sites.

USAID/Mozambique has not had any formal problems with access to the Ministry and our relationship is currently closer than ever before. As noted above, we have met with the Minister and his senior staff to present a major assessment of Ministry of Health warehouses and are moving forward, through regular meetings with MOH logistics personnel, to develop and implement a Master Logistics and Warehousing management plan. Based on these ongoing contacts, we will formalize approval for appropriate access to Ministry of Health project sites by January 31, 2009.

### Report Verification and Validation

USAID/Mozambique Mission Order 200-1 (effective 10/26/07) clearly outlines the need to validate reported data from service providers and partners on a regular and timely basis in conjunction with appropriate site visits. Program Office staff have provided training to Mission teams on how to complete Mission site visit reports and validate indicator data but this training has not occurred over the past year and there are significant numbers of new personnel in place. The Mission will conduct additional training on how to conduct a full site visit, including how to check data quality, after the upcoming Mission-wide CTO training in January, 2009; the target date to conduct site visit training for Mission personnel is February 28, 2009.

### USAID Branding

USAID/Mozambique requests that Recommendation 8 be deleted from the final report as it lies outside the scope of the audit and has already been addressed in various ways. The Mission has discussed the branding issues cited in the draft report with the two partners involved. One has already replaced the plaque with an acceptable and appropriately-branded plaque that clearly identifies the building was “funded by the American people”. The other incorrect branding has been removed and that partner’s Branding and Marking plans will be submitted and approved by the Agreement Officer. These plans require that all construction (including new and temporary construction) are properly branded with the USAID logo and the partner logo as allowed under a cooperative agreement. This structure is now complete, and open to the public. Branding guidelines are included in USAID agreements and compliance should be verified in site visits.

### Conclusion

Once again, we appreciate your work in helping us better understand the positive work that is being done under our Supply Chain Management System program and documenting the results that are being achieved. Your identification of areas where we can improve can only help to ensure that our programs become even more effective in providing services to those who may be affected by HIV/AIDS and other health issues.

## Storage Conditions Tested<sup>16</sup>

Test	Storage Condition Tested	Results of Tests
1	Storage area is secured with a lock and key, but is accessible during normal working hours; access is limited to authorized personnel.	Met
2	Products that are ready for distribution are arranged so that identification labels and expiry dates and/or manufacturing dates are visible.	Not Always Met
3	Items are stored according to instructions on carton, including arrows pointing up.	Not Always Met
4	Products are stored and organized in a manner accessible for first-to-expire, first-out counting and general management.	Not Always Met
5	Storeroom is maintained in good condition (clean; all trash removed; sturdy shelves; organized boxes; no insecticides, chemicals, or old files, etc.).	Met
6	Current space and organization is sufficient for existing products and reasonable expansion (i.e., receipt of expected product deliveries for foreseeable future).	Met
7	Cartons and products are in good condition and are not crushed due to mishandling. If cartons are open, determine if products are wet or cracked.	Met
8	Damaged and/or expired products are separated from usable products.	Met
9	Products are protected from direct sunlight.	Met
10	Cartons and products are protected from water and humidity (i.e., there is no evidence of water damage).	Met
11	Storage area is visually free from harmful insects, rodents, termites, etc.	Met
12	Products are stored at the appropriate temperature, according to product temperature specifications. Does the air conditioner work? Are there power outages? Is there a backup generator?	Not Always Met
13	Roof is in good condition, to avoid sunlight and water penetration. Is there any evidence of leakage?	Met
14	Products are stacked at least 4 inches off the floor.	Not Always Met
15	Products are stacked at least 1 foot away from the walls and other stacks.	Not Always Met
16	Products are stacked no more than 8 feet high.	Met
17	Is fire safety equipment available and accessible, such as fire extinguishers and sand or soil in a bucket?	Not Always Met
18	Package and product integrity: Check for damage to packaging (tears, perforations, water or oil) and products (broken or crumbled tablets, broken bottles).	Met
19	Labeling: Make sure products are labeled with the date of manufacture or expiration, lot number, and manufacturer's name.	Met

<sup>16</sup> The storage conditions tested were based on the John Snow International/Deliver project's facility monitoring tool.

**U.S. Agency for International Development**  
**Office of Inspector General**  
1300 Pennsylvania Avenue, NW  
Washington, DC 20523  
Tel: (202) 712-1150  
Fax: (202) 216-3047  
**[www.usaid.gov/oig](http://www.usaid.gov/oig)**