

OFFICE OF INSPECTOR GENERAL
U.S. Agency for International Development

PEPFAR in Africa: USAID Can Take Additional Steps to Improve Controls Over Data Quality

Audit Report 4-936-22-002-P
September 14, 2022



Africa Regional Office



OFFICE OF INSPECTOR GENERAL U.S. Agency for International Development

DATE: September 14, 2022

TO: USAID/Bureau for Global Health, Assistant Administrator, Dr. Atul Gawande

FROM: USAID OIG Africa Regional Office, Audit Director, Robert Mason /s/

SUBJECT: PEPFAR in Africa: USAID Can Take Additional Steps to Improve Controls Over Data Quality

This memorandum transmits the final report on our audit of data quality in USAID's U.S. President's Emergency Plan for AIDS Relief (PEPFAR) programs in Africa. Our audit objective was to assess the extent to which USAID designed and implemented internal controls to provide reasonable assurance of quality PEPFAR data in selected Africa missions. In finalizing the report, we considered your comments on the draft and included them in their entirety, excluding attachments, in Appendix B.

The report contains our audit findings and three recommendations to improve the Bureau for Global Health's processes for PEPFAR data quality. After reviewing information you provided in response to the draft report, we consider all three recommendations resolved but open pending completion of planned activities.

For all three recommendations, please provide evidence of final action to the Audit Performance and Compliance Division.

We appreciate the assistance you and your staff provided to us during this audit.

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Introduction

The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) is the largest commitment to address a single disease in the history of U.S. foreign assistance. Since PEPFAR's inception in 2003, the U.S. government has invested over \$100 billion in more than 50 countries in the fight against HIV/AIDS. PEPFAR is led and managed by the Office of the U.S. Global AIDS Coordinator and Health Diplomacy (OGAC) within the U.S. Department of State, which works with seven other U.S. government agencies and departments, including USAID, to implement PEPFAR programs. Of the \$4.6 billion in PEPFAR obligations across U.S. government agencies in fiscal year 2019, \$4.4 billion (95 percent) was obligated in Africa. Of this, \$2.3 billion (52 percent) of PEPFAR-funded activities in Africa were implemented by USAID.

According to OGAC, data quality has always been a focus of global HIV monitoring, and between fiscal years 2017 and 2020 OGAC's data quality criteria for agencies generally became more stringent. Emphasizing the importance of data quality, OGAC reported in 2018 that PEPFAR uses data "to drive results and increase impact year over year without increasing financial resources." At the same time, OGAC has placed a strong emphasis on meeting targets. Data collected by agencies support these targets and are used to make high-level decisions such as whether the PEPFAR program is effective or whether to make follow-on awards to implementers. The central role of data to support these decisions, combined with the risks of manipulating data to meet targets, underscore the need for proper data quality monitoring. Further, reliable data was identified as key to sustaining U.S.-funded development, which was one of the top management challenges we identified for USAID in fiscal year 2020.¹

The objective of this audit was to assess the extent to which USAID designed and implemented internal controls to provide reasonable assurance of quality PEPFAR data in selected Africa missions. To answer the audit objective, we assessed if USAID headquarters and its Africa missions did the following for key components of data quality in fiscal year 2019: (1) documented performance of quality control measures for PEPFAR's official data reporting system, (2) conducted assessments of data quality, and (3) monitored implementers' validation of reported results against source data.

To address the objective, we chose a judgmental sample of three of 25 missions in Africa with PEPFAR mechanisms² active in fiscal year 2019, which was two years after more rigorous data quality standards were in place and before the COVID-19 pandemic restricted onsite analysis. Our sample represented high, medium, and low levels of PEPFAR funding in South Africa, Kenya, and Malawi, respectively. From each of the three missions we selected a nonstatistical sample of 3-5 PEPFAR mechanisms, choosing a variety of types and sizes. We reviewed PEPFAR and USAID guidance on data quality, analyzed documentation provided by the missions that demonstrated the implementation of key internal controls, developed and sent questionnaires on key areas of data quality to each mission, and interviewed officials from each mission about their responses. We also interviewed officials from the Office of HIV/AIDS (GH/OHA), USAID's primary office for HIV/AIDS epidemic data, and analyzed associated documentation.

¹ USAID OIG's "Top Management Challenges Facing USAID in Fiscal Year 2020," November 20, 2019.

² A mechanism is a contract, grant, or assistance program implemented under a cooperative agreement.

We conducted our work in accordance with generally accepted government auditing standards. Appendix A provides more detail on our scope and methodology.

Summary

Selected Africa missions lacked key documentation to provide reasonable assurance that controls were designed and implemented to ensure quality PEPFAR data. Beginning in fiscal year 2017, PEPFAR data quality criteria for agencies became more rigorous. This reinforced the need for the design and implementation of strong internal controls to ensure quality data. Although selected USAID Africa missions—Kenya, Malawi, and South Africa—generally adhered to controls, reasonable assurance was lacking due to weaknesses in the following areas:

Quality control measures in PEPFAR’s official data system. We found that Kenya and Malawi did not document quality control measures such as data cleaning and indicator logic checks prior to entering data in PEPFAR’s official data system, DATIM.

Data quality assessments. The Malawi and South Africa missions did not have adequate documentation that required data quality assessments were performed. The mission in South Africa did not receive a written report of an assessment performed by another U.S. government agency responsible for PEPFAR programs and the mission in Malawi did not take steps to perform a substitute assessment when the interagency assessment was not conducted.

Adoption of recommended best practices for validating results. All three missions selected did not fully adopt recommended best practices for internal data quality assessments performed by implementers, including the cross-referencing of reported data with source documentation at health facilities and providing documentation to the appropriate USAID officials.

Recommendations: We made three recommendations to enhance USAID’s efforts to produce quality data in its PEPFAR programs. USAID agreed with all three recommendations.

Background

PEPFAR History

Initially focused on saving lives, PEPFAR now focuses on achieving sustainable epidemic control—which could lead to PEPFAR’s ultimate goal of creating an AIDS-free generation. Epidemic control is reached when (1) the number of new HIV infections and the number of deaths of HIV-affected individuals are both falling, and (2) the total number of new HIV infections falls below the number of deaths of HIV-affected individuals. To accomplish this goal, in 2014 the Joint United Nations Programme on HIV/AIDS (UNAIDS) established the global goals of “90-90-90” by 2020 and “95-95-95” by 2030.³ Further, in September 2017, the U.S.

³ This represents 90 (95) percent of people living with HIV knowing their status, 90 (95) percent of those who know their status receiving treatment, and 90 (95) percent of those receiving treatment having suppressed viral loads. Viral loads are the number of virus particles found in the blood stream, and viral suppression means the immune system is working and reduces transmission.

government launched the PEPFAR Strategy for Accelerating HIV/AIDS Epidemic Control (2017-2020), which aimed to accelerate implementation in 13 high-burden countries with the greatest potential to achieve epidemic control by 2020.

Data Quality and Internal Controls

Data quality means that information collected adequately represents a program's activities and shows how well numbers in a system represent the real world. As described by USAID, data quality can be measured through the five elements of validity, integrity, precision, reliability, and timeliness.

The PEPFAR data that we assessed for quality in this audit includes numbers for PEPFAR indicators that are submitted to OGAC by agencies on a quarterly basis. Data are aggregated into an indicator such as number of adults and children currently receiving antiretroviral therapy (ART) or percentage of HIV-positive pregnant women who received ART to reduce the risk of mother-to-child-transmission during pregnancy. Each indicator belongs to a group such as treatment, prevention, or testing.

To assess the quality of PEPFAR data, we examined internal controls, which are processes used by management to help an entity achieve its goals. One of the goals of management is to obtain quality information on PEPFAR indicators, which depends on relevant data from reliable sources. Internal controls comprise the plans, methods, policies, and procedures used to fulfill the goals of the entity.

Data Quality Roles and Responsibilities

The data quality process is facilitated across the PEPFAR interagency environment, USAID as a PEPFAR agency, and host governments, each with their own roles. Ultimately, these entities have a shared responsibility for ensuring high quality data. Our audit focuses on USAID's roles and responsibilities.

PEPFAR is headed by OGAC, which provides guidance to each of the underlying U.S. government agencies. USAID is responsible for the impact of its programs under the PEPFAR umbrella and for ensuring that data provided to OGAC is reliable. Roles and responsibilities for data quality are further divided into USAID headquarters and missions. USAID's Bureau for Global Health (GH), based at Agency headquarters, is one of 14 USAID bureaus. Within GH, the Office of HIV/AIDS (GH/OHA) leads USAID's efforts to control the HIV/AIDS epidemic. GH/OHA provides advice and tools to the missions to support PEPFAR guidance.

USAID missions implement PEPFAR criteria and guidance, conduct data quality activities, and report results to GH/OHA and OGAC. Missions also oversee implementers, who manage individual health facility data and enter the data into the official tracking system each quarter. Further, missions coordinate with the host governments in countries where PEPFAR operates, which provide reporting from their unique health systems on which PEPFAR reporting relies.⁴

⁴ Our audit did not extend to funding for data quality activities, but this is also a shared responsibility among PEPFAR agencies.

Key Components of PEPFAR Data Quality

Internal controls work together to achieve a goal—in this case, providing high-quality data useful for decision making. Based on discussions with GH/OHA, we identified four key components that, when taken as a whole, are the main processes that contribute to PEPFAR data quality.

DQAs. The purpose of a Data Quality Assessment (DQA) is to ensure that staff are aware of the strengths and weaknesses of indicator data. Because they are performed by parties independent of the implementer and matched against source documentation, DQAs are one of the primary methods used to gain assurance over PEPFAR data collected and maintained by individual health facilities.

A PEPFAR DQA is typically an interagency effort jointly led by the host government, the U.S. government agencies responsible for PEPFAR at the country level, and other stakeholders supporting HIV services. DQAs may also be performed by the local USAID mission. However, according to USAID management, PEPFAR DQAs performed by a single agency may face barriers such as lack of access to local health facilities and restrictions due to host government privacy laws.

Although USAID has general guidance for DQAs performed across the agency, GH/OHA developed specialized DQA processes and tools due to the need for frequent, site-level data for quarterly decision making within PEPFAR. Consequently, site visits are an integral part of GH/OHA's PEPFAR DQA approach. These site visits must include three procedures: (1) assessment of data management systems to determine if they are designed to collect quality data; (2) recalculation of how data flows from site-level reporting to facility level reporting to identify gaps; and (3) verifying site-level reporting against patient records to confirm availability and completeness. The results of DQAs are documented in a checklist that includes recommendations and follow-up items.

RDQAs. Like DQAs, Routine Data Quality Assessments (RDQAs) verify the quality of reported data and assess the underlying data management and reporting systems. RDQAs are also intended to quickly identify and remediate site-level issues and may inform decisions on whether to conduct more comprehensive DQAs. However, instead of being conducted by impartial third parties, RDQAs are generally conducted by implementers who self-assess their information systems and the data they produce. RDQAs are also less resource intensive than DQAs. For example, unlike DQAs, RDQAs do not require rigorous sampling methods.

SIMS. Site Improvement Through Monitoring System (SIMS) is a PEPFAR interagency quality assurance tool used to monitor and improve program quality at PEPFAR-supported health facilities. The purpose of a SIMS assessment is to determine if a health site meets quality standards set by the World Health Organization. Six elements of the SIMS assessment are focused on data quality, such as determining whether a site reviews its records and assesses the results of those reviews. As with DQAs and RDQAs, records are matched against source documents during site visits.

DATIM. The official system for tracking progress against program targets is the PEPFAR Data for Accountability, Transparency, and Impact Monitoring (DATIM) reporting system, which is

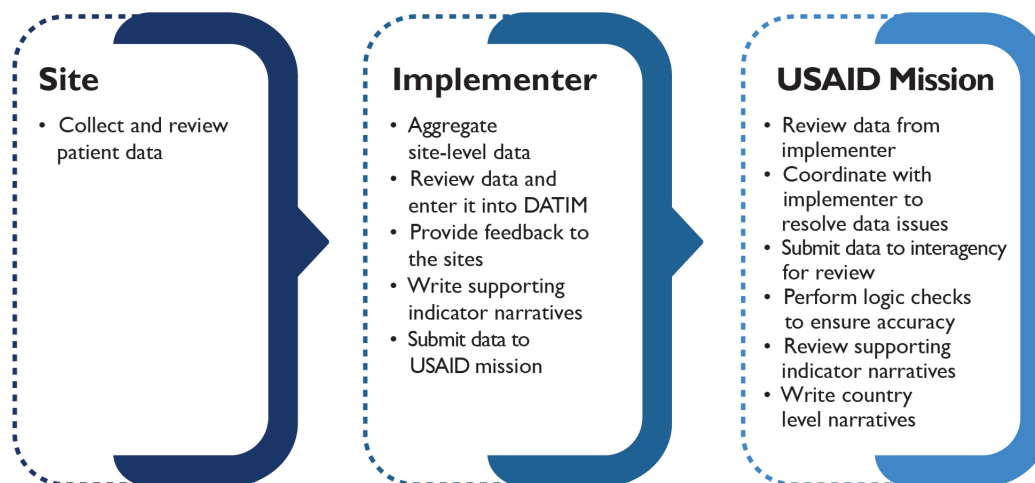
managed by the U.S. Department of State. It provides an automated means for implementers and agencies to interactively enter and review PEPFAR program information. The data entered into DATIM is informed by the results of DQA, RDQA, and SIMS procedures.

On a quarterly basis, USAID implementers enter data directly into DATIM and submit it to USAID missions. Missions conduct the following three quality control measures prior to submitting their data to the PEPFAR interagency committee, which reviews the data across agencies:

1. **Data Cleaning:** USAID is required to review indicator data submitted by the implementers for errors and resolve any issues with the implementers.
2. **Indicator Logic Checks:** PEPFAR guidance prescribes logic checks for each indicator to test whether the data underlying that indicator is correct. For example, for the TX New indicator (Number of Adults and Children Newly Enrolled on Antiretroviral Therapy), new cases of HIV-positive enrollees should be less than the current caseload. USAID is required to perform these logic checks to ensure accuracy and correct data that does not pass the checks.
3. **Narratives:** Each quarter, USAID is required to write narratives that explain the quantitative values reported. We analyzed narratives at the implementing partner level and the country level.

Figure I displays the flow of data in the DATIM process and the roles of USAID and its implementers.

Figure I. DATIM Process



Source: OIG based on PEPFAR Monitoring, Evaluation, and Reporting Indicator Reference Guide version 2.4.

In addition to these main components, USAID follows other processes that contribute to PEPFAR data quality. For example, USAID missions, along with other PEPFAR agencies, prepare a quarterly PEPFAR Oversight and Accountability Response Team (POART) review to provide programmatic and budgetary information to OGAC and GH/OHA.

Development of PEPFAR Criteria and Guidance

One of the responsibilities of OGAC and of USAID as a PEPFAR agency is to develop data quality criteria and guidance. The primary PEPFAR criteria are developed by OGAC. These include the following two documents, both of which are updated annually to respond to PEPFAR program developments.

- The Monitoring, Evaluation, and Reporting Indicator Reference Guide (MER), which is intended to establish and define indicators for PEPFAR reporting. It is updated annually to capture emerging program priorities.
- The annual Country Operating Plan (COP) guidance, which lays out PEPFAR's strategy for the following year, including oversight, accountability, and quality improvement priorities.

GH/OHA supplements OGAC's criteria by developing Agency-specific tools and best practices. GH/OHA officials do not consider these official requirements, which they state only come from OGAC and USAID Agency-specific policy. These include the following:

- Tools and approaches to support data quality processes, such as DQAs and RDQAs. Although missions are not required to use these tools, they constitute best practice because they were developed with the support of USAID's data-focused partners and input from leading organizations such as the World Health Organization and The Global Fund to Fight AIDS, Tuberculosis and Malaria, as well as OGAC.
- "USAID/PEPFAR DQA Protocol" (Protocol), effective in fiscal year 2020, provides supplemental guidance to USAID missions related to PEPFAR DQAs and RDQAs. The Protocol was designed with the objective of sharing recommended best practices and expectations. According to GH/OHA leadership, the Protocol is meant to complement and build on existing DQA resources developed by OGAC, USAID, and the U.S. Centers for Disease Control and Prevention.

USAID also follows Agency-specific policy applicable to all the Agency's programming, including non-PEPFAR mechanisms.⁵ According to USAID management, GH/OHA's PEPFAR tools and guidance do not supersede Agency policy. All of the above criteria, except for the Protocol, were in place in fiscal year 2019.

USAID Lacked Key Documentation in Selected Africa Missions to Provide Reasonable Assurance That Controls Were Designed and Implemented to Ensure Quality PEPFAR Data

The Malawi and Kenya missions did not have documentation to support performance of PEPFAR DATIM quality control measures related to data cleaning and indicator logic checks. We also found that the Malawi and South Africa missions lacked evidence that DQAs were performed. In fiscal year 2019, for example, the South Africa mission did not adequately

⁵ Automated Directives System (ADS) 201, "Program Cycle Operational Policy."

document the results of their interagency DQA, and the Malawi mission did not complete activities that met applicable DQA criteria. In addition, the three missions did not always provide RDQA reports, while most monitoring plans did not call for cross-referencing of data—two best practices to increase assurance that data are accurate and reliable.

Two of Three Sampled Missions Did Not Have Documentation to Support Performance of PEPFAR DATIM Quality Control Measures

When looking at DATIM requirements for (1) data cleaning, (2) indicator logic checks, and (3) narratives, we found incomplete documentation of data cleaning and indicator logic checks in two of three missions. The South Africa mission had complete documentation of data cleaning and logic checks for the items we reviewed, and all three missions met the requirements for narratives. However, Kenya and Malawi staff did not document or retain documentation as evidence of performing many of the DATIM quarterly control measures to analyze data entered into DATIM.

Documentation of Data Cleaning

- The Malawi mission documented which data they extracted from DATIM for analysis but did not document the analysis of the data and the conclusions reached. Therefore, we were unable to determine the extent of the data cleaning process. In addition, in fiscal year 2019 Malawi health facilities were transitioning from manual to electronic medical records. Although the Malawi team compared manual to electronic records, they were unable to provide documentation that DATIM errors resulting from the transition were resolved.
- The Kenya mission follows a quarterly DATIM interagency reporting calendar that instructs USAID to review Agency data using pivot tables. Although the mission provided some evidence, such as screen shots, that they used pivot tables, staff could not provide documentation of their review. The Kenya mission also did not formally document communication with implementers related to data cleaning. As a result, there was no consistent record of whether data had been changed or issues resolved before final submission into DATIM.

Indicator Logic Checks

- We could not determine whether the Malawi mission complied with DATIM requirements for validating that the data underlying treatment indicators were logical for several reasons: (1) the Malawi mission no longer had the documentation for the quarter that we requested, and (2) the documents provided did not show totals or other evidence that the mission validated the underlying logic for the indicators in our sample.
- The Kenya mission said they validated that treatment indicator data passed the logic checks but no longer had the documentation for the quarter that we requested.

Guidance in PEPFAR's MER for DATIM is stated in general terms and does not specify the level of documentation required for routine data quality control measures. According to a GH/OHA official, GH/OHA does not have detailed procedures or guidance for USAID missions about DATIM quality assurance for implementing U.S. Department of State's MER. However,

according to Federal internal control standards, management should clearly document internal controls and all transactions in a manner that allows the documentation to be readily available for examination.⁶

Without documentation of DATIM controls, management lacks assurance that the resulting data meets data quality standards. This includes the assurance of whether data reflects mitigation of issues stemming from site-level DQA, RDQA, and SIMS visits. The resulting data could affect whether quarterly POART reviews of progress towards PEPFAR targets and goals are well-informed. Further, incomplete documentation could hinder the effective handover of responsibilities when staff are transferred, leading to inefficiency and increased opportunities for fraud.

Two of Three Missions Reviewed Lacked Evidence That DQAs Were Performed in Fiscal Year 2019

When we reviewed DQAs for the three missions for 2019, we noted that while the Kenya mission provided evidence of performing an interagency DQA, the South Africa mission did not document the results of their interagency DQA and the Malawi mission did not complete activities that met applicable DQA criteria.

- The South Africa mission was briefed on the results of the 2019 DQA, which was led by another PEPFAR agency, but did not receive a copy of the DQA report. Although they were provided the DQA information orally, mission staff did not adequately document the DQA results and follow-up actions or record the results in a DATIM narrative.
- Although the Malawi mission requested that an interagency DQA be performed, OGAC denied the request due to other priorities. In the absence of the interagency DQA, the mission did not plan a substitute DQA or other activities that met applicable criteria in the MER.

USAID guidance outlines how to proceed when there is a lack of an interagency site-level DQA or lack of reporting by another agency. When there is no site-level interagency or agency specific DQA, USAID mission staff should follow ADS 201, which requires staff to coordinate with the mission Program Office to assess the quality of data reported. It further stipulates that data will be shared and reported as appropriate. Although it was effective after the period of our audit, GH/OHA acknowledged the need for additional guidance by developing the Protocol. The Protocol primarily addresses DQAs. However, there is no specific guidance on how missions should report if interagency DQAs are not performed.

If DQAs are not conducted regularly, data may not meet the five standards of data quality (validity, integrity, precision, reliability, and timeliness), which could result in an erosion of confidence in the data, and decision making using unreliable information. For example, USAID may not capture potential site-level issues such as missing documents, errors in documents

⁶ GAO, *Standards for Internal Control in the Federal Government* (GAO-14-704G), “Design Control Activities” Principle 10, “Management Should Design Control Activities to Achieve Objectives and Respond to Risks,” September 2014.

needed to verify data, or system errors. Further, if results of procedures are not recorded, institutional memory can be lost, leading to inefficiencies in terms of time and resources.

All Three Selected Missions Did Not Fully Adopt Recommended Best Practices Regarding RDQAs and Cross-Referencing Data

RDQAs are intended to verify the quality of PEPFAR reported data and can be used to identify and quickly respond to targeted implementer issues. A key element in USAID's RDQA tool, which USAID recommends for implementer use, includes a data verification component that aims to cross-check RDQA results against other data sources. This verification increases assurance that data is accurate and reliable.

Per ADS 201, missions and USAID headquarters should ensure the quality of performance monitoring data collected by implementers. Some of these responsibilities are related to contracting oversight. For example, each mechanism is required to have a Monitoring, Evaluation, and Learning (MEL) plan, approved by the Agreement/Contracting Officer's Representative (A/COR), which is designed to inform USAID whether and how a mechanism is making progress towards its intended results. RDQAs are an important element of PEPFAR data quality, and MEL plans must include the activity's monitoring approach.⁷

We selected a sample of PEPFAR mechanisms at each audited mission to test controls over RDQAs. GH/OHA training materials recommend as a best practice that RDQAs be conducted quarterly, so for each mechanism we determined whether RDQAs were completed in fiscal year 2019 quarter 2 (January-March)⁸ and whether those RDQAs included evidence that implementers had planned to cross-reference data. As seen in Table I below, those best practices were not fully adopted by the missions. None of the mission officials were able to provide all RDQA reports, and one of the RDQA reports, from the South Africa mission, that was provided did not cross-reference data to other sources.

Table I. RDQA Reports Provided and RDQA Reports with Cross-Referencing

Missions	Number of Mechanisms Tested	RDQA Provided	RDQA Provided With Cross-Referencing
Kenya	5	1	1
Malawi	3	2	2
South Africa	3	1	0
Total	11	4	3

Source: OIG analysis of RDQA reports.

We also analyzed the associated MEL plans to determine whether they included the best practices that (1) implementers conducted RDQAs, and (2) RDQA results were cross-referenced against a secondary data source. As shown in Table 2 below, while most sampled

⁷ ADS 201, "How-To Note: Activity Monitoring, Evaluation and Learning Plan."

⁸ In cases where an RDQA for a mechanism had not been started by fiscal year 2019 quarter 2, we reviewed the first RDQA and MEL plan after that period.

MEL plans included the best practice that RDQAs be performed by implementers, 6 of 11 MEL plans did not mention cross-referencing to results.

Table 2. MEL Plans That Did Not Include Cross-Referencing

Missions	Number of Mechanisms Tested	MEL Plan Includes Requirement for RDQAs	MEL Plan Did Not Include Cross-Referencing
Kenya	5	4	3
Malawi	3	3	2
South Africa	3	3	1
Total	11	10	6

Source: OIG analysis of MEL plans.

USAID's "Routine Data Quality Assessment Tool User Manual" (January 2017) states as a recommended best practice that data verification be conducted regularly, including assessing whether the data agrees with reported results from other data sources. USAID's PEPFAR DQA Protocol further stipulates that an RDQA include a site visit with a documentation review and cross-checking of reported results with other data sources.

However, the USAID Protocol was provided to mission staff in January 2020, after the scope of our audit. Neither of these criteria detail internal controls that would ensure adherence to guidance such as MEL language requiring RDQA cross-checking to other sources or a demonstration of RDQA review. According to Federal Standards for Internal Controls, each unit, with guidance from management, determines the policies necessary to operate the process and documents the appropriate level of detail to allow management to effectively monitor the control activity.⁹

If RDQAs do not include cross-checks against other data sources to validate data, issues affecting data quality may not be identified and mitigated at the site-level. As with DQAs, this may include potential site-level issues such as missing documents, errors in documents needed to verify data, or system errors. As a result, there is increased risk that stakeholders may not have quality data for program decisions.

Conclusion

USAID's PEPFAR data quality efforts are under the broader OGAC initiative focusing on sustainable control of the HIV epidemic. These efforts are based on a combination of U.S. Department of State, USAID Agency-wide, and GH/OHA PEPFAR policies and procedures. While USAID generally followed data quality guidance, it missed opportunities to provide documentary assurance that quality measures were in place. As USAID looks to enhance its data quality, the Agency will need to ensure that there are appropriate controls in place to proactively identify and mitigate data issues and document the steps taken. This could decrease the risk of incomplete data and other errors, improve PEPFAR data for decision making at the country-level, and ultimately help direct PEPFAR resources to areas of greatest risk.

⁹ GAO, *Standards for Internal Control in the Federal Government* (GAO-14-704G), "Implement Control Activities," Principle 12, "Management Should Implement Control Activities Through Policies," September 2014.

Recommendations

We recommend that USAID's Bureau for Global Health develop detailed guidance to ensure that:

1. PEPFAR DATIM quality control measures at missions are well-documented and applied consistently.
2. Missions document compliance with Agency requirements on how to respond when PEPFAR interagency DQAs are not performed, or reports are not received.
3. PEPFAR RDQAs conducted by implementing partners at missions cross-reference databases to other sources, are provided to the appropriate USAID officials, and include controls for oversight of the process.

OIG Response to Agency Comments

We provided our draft report to USAID on July 18, 2022. On August 23, 2022, we received the Agency's response, which is included as Appendix B of this report.

The report included three recommendations. We acknowledge management decisions on all three recommendations and consider all of them resolved but open pending completion of planned activities.

Appendix A. Scope and Methodology

We conducted our work from September 2020 through July 2022 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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Our audit objective was to assess the extent to which USAID designed and implemented internal controls to provide reasonable assurance of quality PEPFAR data in selected Africa missions.

The audit focused on USAID's Bureau for Global Health (GH) and the Office of HIV/AIDS (GH/OHA) within that bureau and its involvement with the U.S. Global AIDS Coordinator and Health Diplomacy's (OGAC) oversight of data quality in PEPFAR agencies, including USAID. The audit focused on the period of fiscal year 2019, which was two years after more rigorous data quality standards were in place and before the COVID-19 pandemic restricted onsite analysis. We did not rely on computer-processed data to answer the audit objective.

In planning and performing the audit, we gained an understanding and assessed internal controls that were significant to the audit objective. As such, we designed and conducted procedures related to all five components of internal control as defined by the U.S. Government Accountability Office (GAO).¹⁰ These include the Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring.

To answer our audit objective, we chose a judgmental sample of three countries in Africa¹¹—South Africa, Kenya, and Malawi—from the population provided by GH/OHA of 25 Africa recipient countries that reported treatment indicators during the period of fiscal year 2017 through fiscal year 2020.¹² Treatment indicators were identified by GH/OHA management personnel as the most important group of indicators in the PEPFAR program. We then set a threshold of a minimum of three awards and unique implementers per mission. From the resulting list we selected three missions to achieve a mixture of funding levels: high (South Africa), medium (Kenya), and low (Malawi).

For each of the three sample missions, we selected 3-5 mechanisms to test for data quality controls, based on a list of those mechanisms that include treatment indicators and were active in fiscal years 2017-2020. From this list, we judgmentally chose mechanisms that included a mixture of local and international implementers, grants and contracts, and small and large funding amounts to achieve diversity in size and types of processes. While we cannot project the results of testing conducted to the population of PEPFAR countries, we deem our method

¹⁰ GAO, *Standards for Internal Control in the Federal Government* (GAO-14-704G), September 2014.

¹¹ We chose to audit missions in Africa because they represented 95 percent of total PEPFAR obligations in fiscal year 2019.

¹² The total number of mechanisms varied by mission. The Kenya mission had a population of 8 active mechanisms, Malawi had 6, and South Africa had 8.

for selecting our samples appropriate to our audit objective, and determined that the selection would generate valid, reliable evidence to support our findings and conclusions.

We began our work by analyzing the appropriate PEPFAR guidance for data quality, including criteria developed by OGAC, such as the MER and the COP, and tools and guidance developed by GH/OHA. For each mission selected we requested mission-level policies and procedures related to PEPFAR data quality. We gained an understanding of roles and responsibilities for data quality based on OGAC and GH/OHA guidance and our interviews with officials at GH/OHA and the three sampled missions.

Based on preliminary interviews, we identified DQAs, RDQAs, SIMS, and DATIM as the key data quality components for PEPFAR. To gain a better understanding of these components at the mission level, we developed questionnaires for USAID officials and implementing partners in each mission requesting how each component was conducted and by whom in fiscal year 2019. For DATIM and RDQA, we further focused on quarter 2 of fiscal year 2019. After reviewing the questionnaires, we interviewed officials in each sampled mission to elaborate on their responses to questionnaires.

Based on our analysis of guidance, questionnaires, and interviews, we designed and conducted procedures to test the internal controls that GH/OHA and the sampled missions relied on to ensure data quality. We requested and analyzed documentary evidence supporting the design and implementation of key controls for the DQA, RDQA, SIMS, and DATIM processes for each mission.

Appendix B. Agency Comments



MEMORANDUM

To: Office of the Inspector General for the U.S. Agency for International Development (USAID), Africa Regional Office, Director for Audit, Robert Mason

From: USAID/Bureau for Global Health, Assistant Administrator, Atul Gawande //s//

Date: August 16, 2022

Subject: Management Comments to Respond to the Draft Audit Report Produced by the Office of Inspector General (OIG) titled, [“PEPFAR in Africa: USAID Can Take Additional Steps to Improve Controls over Data Quality”](#) (4-936-22-00X-P) Prepared by the Office of the USAID Inspector General (OIG) on July 18, 2022

The Bureau for Global Health of the U.S. Agency for International Development (USAID) would like to thank the Office of Inspector General (OIG) for the opportunity to provide comments on the draft report, “PEPFAR in Africa: USAID Can Take Additional Steps to Improve Controls over Data Quality”. The Agency agrees with the recommendations, and herein provides plans for implementing them and reporting on significant progress already made.

Since fiscal year (FY) 2018, the U.S. Department of State's Office of the U.S. Global AIDS Coordinator (S/GAC) and Health Diplomacy's data quality criteria for agencies has become more demanding. In response, USAID's HIV programs have made significant progress for strengthened program and data quality assurance and improvement across USAID PEPFAR stakeholders. Many actions have already been taken to support sustainable improvements in HIV data quality, and USAID will continue to strengthen program data quality assurance. By hiring a Health Science Specialist, three Program and Data Quality Advisors, a Data Analyst, and a Data Scientist—all focused on supporting quality assurance and quality improvement (QA/QI) across USAID Headquarters (HQ), missions, and partners—the Bureau for Global Health's Office of HIV/AIDS (GH/OHA) has demonstrated a significant commitment for data and program quality and established strong USAID PEPFAR QA/QI technical leadership in support of its global operations.

The USAID PEPFAR Data Quality Assurance and Improvement Protocol was developed during FY 2019 and shared with USAID missions starting in FY 2020. The protocol provided guidance to HQ and USAID missions on how to carry out recommended approaches for data quality

assurance and provide oversight over implementing partners' (IPs) data quality assurance. While the COVID-19 pandemic interfered and/or delayed implementation of some of the planned Data Quality Assessments (DQAs), GH/OHA worked to develop smart tools such as the Data Anomaly Detection tool that can support the remote review of data quality and identify outlier reporting from sites for targeted and safe on-site investigation and cross-validation. This and other remote data quality assurance approaches that support oversight during disruptions such as COVID-19 were included in the updated version of the Protocol in February 2022 and disseminated to USAID Missions through in-service training and technical assistance from GH/OHA.

GH/OHA uses multiple channels to communicate PEPFAR data quality assurance and improvement requirements, best practices, application of tools, and recommended approaches, including:

- *OHA Notes to the Missions* - GH/OHA routinely communicates data quality requirements and recommended approaches and tools aimed at meeting those expectations to the field.
- *Bi-monthly meeting with the OHA Center of Excellence for Quality Improvement* - This is a platform for technical teams to discuss quality assurance (QA) and quality improvement (QI) successes, lessons learned, and challenges. USAID HQ and Missions use this platform to exchange information on data QA/QI expectations and best practices.
- *USAID Implementing Partners Work Plan guidance* - OHA highlighted and reinforced data quality assurance expectations for PEPFAR IPs.
- *Routine Data Quality Assessment (RDQA) Training*: Through orientation sessions, webinars, virtual and in-person training and technical assistance, OHA has raised awareness and built capacity for data QA/QI across HQ, USAID mission staff (6 sessions), and US-based implementing partners (2 sessions in French and 2 sessions in English). Paying special attention to new local prime partners, OHA provided training to 230 people from 89 local partner organizations located in 24 countries to strengthen capacity and use of tools to carry out RDQAs, including cross-checks along multiple data sources.
- *Data Quality Assessment (DQA) Training*: The OHA Program Quality Review Cluster was established to advance internal data and program quality controls. The Cluster established workflows and processes aimed at enhancing internal QA/QI measures across USAID PEPFAR Operating Units (OUs). In FY 2022, the cluster delivered in-service training for 55 USAID mission staff from 20 countries (Nigeria, Uganda, Ethiopia, Jamaica, Indonesia, Angola, Mozambique, Kyrgyzstan, Tajikistan, Eswatini, Burundi, Lesotho, Zimbabwe, Liberia, Haiti, Botswana, Democratic Republic of the Congo, Ghana, Kenya, and South Sudan) on recommended and required DQA and QI practices, and trained staff in innovative methods that support strong USAID data quality oversight.

GH/OHA will continue to work with USAID PEPFAR OUs to ensure consistent internal data quality control application and documentation.

**MANAGEMENT COMMENTS BY THE U.S. AGENCY FOR INTERNATIONAL
DEVELOPMENT (USAID) ON THE REPORT RELEASED BY THE USAID OFFICE
OF THE INSPECTOR GENERAL (OIG) TITLED, “PEPFAR in Africa: USAID Can Take
Additional Steps to Improve Controls over Data Quality” (4-936-22-00X-P) (Task No.
441P0120)**

Please find below the management comments from the U.S. Agency for International Development (USAID) on the draft report produced by the Office of the USAID Inspector General (OIG), which contains three recommendations for USAID. USAID agrees with the OIG recommendations and has already begun to implement significant steps to enhance its data quality controls at all levels—HQ, USAID Missions, and partners—and ensure that USAID can proactively identify and mitigate data issues and document the steps taken.

The implementation process for many of the below described activities has already begun and will continue through September 2023.

Recommendation 1: PEPFAR DATIM quality control measures at missions are well-documented and applied consistently.

Management comment: USAID agrees with Recommendation #1. While some data cleaning measures (e.g., data quality logic checks) aimed at preventing data inconsistencies and data entry errors are documented within DATIM, GH/OHA agrees with the recommendation for Missions to have well documented and consistently applied PEPFAR DATIM quality control measures. The steps and deliverables described below will document the achievement of the recommendation:

Develop a Data Quality Checklist (September - November 2022)

This supplemental USAID DATIM data cleaning/quality control checklist will be used by monitoring and evaluation officers at USAID Missions to ensure the DATIM data cleaning and data quality control steps are consistently taken and documented, including any remediation that occurred. The checklist will be used in tandem with existing data cleaning SOPs, including the S/GAC Data Review Tool (DRT) Users Guide, which provides detailed information on how to conduct the data quality checks in DATIM. USAID Mission staff will file the completed checklists.

Conduct a Technical Assistance Webinar for USAID Missions (November - December 2022)
GH/OHA will conduct a webinar to provide technical assistance on implementing the use of the USAID DATIM data cleaning/quality control checklist and how to utilize the PEPFAR DRT.

Final Deliverable(s)

Data Cleaning/Quality Control Checklist for PEPFAR USAID Missions
Technical Assistance Webinar

Target completion date: December 31, 2022

Recommendation 2: Missions document compliance with Agency requirements on how to respond when PEPFAR interagency DQAs are not performed, or reports are not received.

Management comment: USAID agrees with the Recommendation #2. The process outlined within this Recommendation #2 will improve the shared responsibility between USAID Missions' Program and Health Offices to carry out required DQAs when the interagency DQAs are not planned. This work has already started and will continue through FY 2023 to ensure PEPFAR OUs receive the information and needed technical assistance to implement this recommendation.

Communicate OIG audit recommendations to USAID PEPFAR missions (September 2022)
GH/OHA will share the OIG audit findings, recommendations, and USAID's response with USAID Missions during the September OHA Call to the Field.

Raise awareness and capacity of USAID missions to carry out and document USAID and PEPFAR required DQAs (October 2022 - September 2023)

- **Draft communication on compliance:** Through the OHA Notes to Missions emails, the OHA country cluster meetings, and other routine communication and meeting channels, OHA will disseminate USAID and PEPFAR DQA requirements and expectations including those pertaining to reporting and documentation. GH/OHA will include guidance on how to document compliance with ADS 201 if an interagency DQA is not conducted.
- **Conduct two webinar sessions:** GH/OHA will engage with USAID/GH/Office of Policy, Programs, and Planning (P3) to organize two sessions to clearly communicate the PEPFAR DQA requirements and the expectations for compliance with ADS 201 in the absence of PEPFAR interagency DQAs.

Develop a technical In-Service Training Plan (August 2022 - September 2023)
GH/OHA's program quality cluster will develop an in-service training plan. This training will strengthen awareness and capacity of USAID mission staff in the areas of DQA tools, approaches, documentation, and compliance to consistently conduct DQAs on a routine basis in line with ADS 201.

Final Deliverable

Data Quality Communication and Training Plan

Target completion date: September 30, 2023

Recommendation 3: PEPFAR RDQAs conducted by implementing partners at missions cross-reference databases to other sources, are provided to the appropriate USAID officials, and include controls for oversight of the process.

Management comment: USAID agrees with Recommendation # 3. The process outlined within this Recommendation #3 will lead to integration of best RDQA practices by USAID partners and

strengthening of USAID mission data quality oversight. The work has already started and will continue until September 2023.

Update PEPFAR USAID IP Work Plan Guidance (June 2023)

GH/OHA will update the PEPFAR USAID IP Work Plan Guidance for Missions in order for IPs to include cross-validation in their routine data quality assurance efforts and regularly share reports with the appropriate USAID official (i.e. USAID AOR/COR or Activity Manager).

Integrate RDQA best practices into Implementing Partner (IP) MEL plans (August 2022 - September 2023)

GH/OHA will work with USAID/GH/P3 office to organize two sessions with Mission staff on the RDQA best practices. The sessions will provide guidance on including IP cross-validation between data sources, and on the best ways to ensure they are integrated into the MEL plans submitted by all USAID PEPFAR IPs.

GH/OHA will share standard language on RDQAs to be included in the PEPFAR-funded IP MEL section. The implementation of the MEL plans will be routinely reviewed by the appropriate USAID officials.

Conduct PQ Cluster In-Service Training (IST) (August 2022 - September 2023)

GH/OHA will provide in-service training that highlights the role of USAID Mission staff in oversight of IP internal RDQA practices and QI action plan implementation. The IST will also include information on USAID tools, such as the Data Quality Monitoring Application (DQM App). The DQM app supports data quality oversight through site-level monitoring and cross-validation, provides strong documentation of accomplished efforts, and facilitates the use of findings for data QI.

Final Deliverable(s)

Updated PEPFAR USAID IP Work Plan Guidance
Data Quality Communication and Training Plan

Target completion date: (September, 30, 2023)

Appendix C. Major Contributors to This Report

Members of the audit team include:

- Robert Mason, Audit Director
- John Slattery, Assistant Director
- Mary Vanagas, Lead Auditor
- George Kum, Auditor

The audit team would also like to acknowledge contributions from Jessica Pearch.



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