



KEMSA Support Program

End of Project Progress Report

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KEMSA Support Program

FINAL PROGRESS REPORT

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Acronyms and Abbreviations

CEO	Chief Executive Officer
ERP	Enterprise Resource Planning
GPS	Global Positioning System
HCMS	Health Commodities and Services Management program
ICT	Information and Communications Technology
KEMSA	Kenya Medical Supplies Authority/Agency
KPI	Key Performance Indicator
LMIS	Logistics Management Information System
LMS	Leadership, Management and Sustainability program
LMU	Logistics Management Unit
MOMS	Ministry of Medical Services
NQLC	National Quality Control Laboratory
PMP	Performance Monitoring Plan
POD	Proof of Delivery
PPB	Poisons and Pharmacy Board
QA	Quality Assurance
RHF	Rural Health Facility
SCMS	Supply Chain Management System program
SLA	Service Level Agreement
SOP	Standard Operating Procedure
WMS	Warehouse Management System

1. Executive Summary

In line with the Global Health Initiative principles, “country led, country owned, country managed”, the Government of Kenya and the United States Agency for International Development (USAID) have a shared vision of strengthening the national health system in Kenya. To execute this vision USAID created the Kenya Medical Supplies Agency (KEMSA) Support Program to help KEMSA deliver on its core mandate to procure, warehouse and distribute medical commodities. The program began on May 10, 2011 with Deloitte Consulting LLP as the lead implementing partner, in collaboration with Deloitte Kenya, Deloitte South Africa, and various Kenyan public and private sector organizations. Together, this team addressed the program’s five objectives, which were to:

1. Review KEMSA’s legal status (KEMSA Act) and make recommendations to strengthen its operational mandate.
2. Strengthen KEMSA’s governance architecture and practice, especially to improve financial and procurement transparency and accountability.
3. Strengthen KEMSA’s inventory management and tracking systems to ensure full transparency and accountability for stock it receives and distributes throughout the country.
4. Strengthen KEMSA’s warehousing and distribution systems to address its own identified needs, including infrastructure improvements, skills development of core staff, and operational budget support.
5. Support KEMSA to develop, implement and monitor a performance management plan.

Throughout the duration of the program, we built KEMSA’s supply chain skills and knowledge through mentoring, coaching and on-the-job training. Our support helped position KEMSA to sustainably function as a strong, efficient, effective and accountable supply chain organization of choice.

KEMSA’s improvements as an organization overall are underscored by quantitative performance measurements. Seventy-five percent (75%) of project indicators outperformed their baseline during the second year of the project, and 79% met or exceeded their second year target during one or more project quarters.

Key project achievements include:

- **Strengthening legal status:** We worked with KEMSA and public, private and non-profit stakeholder groups to transition it from an agency to an authority through the enactment of the Kenya Medical Supplies Authority Act No. 20 of 2013. This Act established an Authority as the successor to the Kenya Medical Supplies Agency through the repealed legal notice number 17 of February 11, 2000, providing a well-defined statutory foundation for autonomous governance and managerial decisions.
- **Enhancing distribution performance:** We collaborated with KEMSA’s Operations Department to implement performance-based contracts with cost-effective routes for distribution. This improved commodity delivery through 43% shorter transit times for hospitals, increased coverage of Kenya’s over 3,600 health facilities, and strengthened security and quality of over 1,100 medical commodities in transit.

- **Increasing customer service effectiveness:** We worked with KEMSA to redesign the Customer Service Department and integrate the Logistics Management Unit (LMU). The redesigned unit has a well-defined structure, with standard processes, roles and responsibilities, and improved capability to capture, track and analyze logistics data for decision making.
- **Improving financial standing:** We helped KEMSA legally secure the land they own and assessed market value of approximately USD 2,250,000 worth of land and properties. Legally documenting the value of the land better positions KEMSA to apply for and receive additional funding to improve their business.
- **Integrating planning:** We supported KEMSA in the development of a Planning Department with a proposed eight full-time equivalents to facilitate collaborative supply chain planning across Customer Service, Finance, and Operations Departments. This provides the foundation for improved visibility and accuracy of commodity needs.
- **Improving KEMSA's brand visibility:** We conducted a media campaign to better inform stakeholders and customers on KEMSA's role and capacity. The media campaign included coverage across two television stations, three radio stations, two newspapers and one magazine. Media coverage helped position the passage of the KEMSA Bill in Parliament.
- **Institutionalizing performance management:** We helped KEMSA identify 74 indicators aligned to their strategic pillars and then integrate measurement of 27 of these performance metrics across departments to inform internal decisions and share results with stakeholders. KEMSA staff led metrics results presentations in operations staff meetings and the used metrics in decision making. Data use enabled KEMSA to target interventions and process improvements in order to more efficiently use limited resources and ultimately create a stronger national health system in Kenya.

We encountered several challenges during program implementation ranging from human resource limitations to lack of a fully functional Enterprise Resource Planning (ERP) system. The current ERP needs to be strengthened in order for KEMSA to reach its full potential. Enhanced ERP functionality is required to improve the quality and speed of warehouse operations and monitoring and evaluation.

2. Background

The KEMSA Support Program was a two-year cost plus incentive fee contract awarded on May 10, 2011 to Deloitte Consulting LLP as the lead implementing partner. The main goal of the program was to strengthen KEMSA's commodity management system for effective service provision to client health facilities throughout the country. The expected outcomes of the program were to build a strong, efficient, effective and accountable KEMSA with regard to its commodity procurement, warehousing and distribution role and to build a unified, integrated, responsive and sustainable national supply chain management system. The program's five components with associated deliverables are listed below:

- 1. Review KEMSA's legal status and strengthen its operational mandate.** The goal of this component was to facilitate the drafting of and advocacy for passage of an Act of Parliament. Key deliverables included policy paper development and full alignment of KEMSA's legal framework to their mandate.
- 2. Strengthen KEMSA's governance, architecture, and practice:** The aim of this component was to strengthen KEMSA's Board, especially in corporate governance. This component focused on improving KEMSA's governance, management, and internal policies to allow them to operate effectively to achieve their mandate. This included improving KEMSA's financial and procurement transparency and accountability.
- 3. Strengthen KEMSA's inventory management and tracking systems:** The goal of this component was to support the development and rollout of a commodity management system (including a tracking system), and to provide KEMSA staff with the necessary skills to implement it effectively. The program was to support the mapping of all health facilities in the country to inform effective commodity distribution and to strengthen the LMU, either through its integration into KEMSA or the Ministries of Health to support effective planning and sustainability.
- 4. Strengthen KEMSA's warehousing and distribution systems:** The aim of this component was to support KEMSA's warehousing systems and infrastructure including equipment. The project supported KEMSA to meet its own identified needs and to help improve efficiency and ultimately reduce costs.
- 5. Support KEMSA to develop, implement and monitor a Performance Monitoring Plan (PMP).** The goal of this component was to support KEMSA to develop and successfully implement key performance indicators (KPIs), as well as performance monitoring and reporting against its set objectives, strategies, and activities.

To deliver the program's mandate we engaged KEMSA to create a two-year work plan that addressed KEMSA's identified gaps in each of the work streams. For each of the work streams, we analyzed the current state, benchmarked and aligned the processes with the leading practices, developed standard operating procedures (SOPs) where necessary for the agreed practice before implementation and training the process owners on use of the new practices.

We faced several challenges during program implementation. There are existing limitations to the current ERP that restrict improvements in KEMSA's supply chain productivity. The contracted ERP implementer did not demonstrate the capacity or expertise to develop some

of the missing functionalities, especially in the Warehouse Management System (WMS) module.

Our project noted that some KEMSA staff may be better suited for other roles than their current positions. This limited the ability of KEMSA to absorb and operationalize all the updated and improved processes. There is a planned skills assessment by a USAID implementing partner. This was not completed during the project's period of performance.

Our scope did not include strengthening procurement processes. Inventory management and tracking systems rely heavily on timely procurement orders. Many identified weaknesses in customer service and inventory management have their root cause in procurement, e.g. low fill rate for popular commodities, and unnecessary high days of stock coverage for slow moving commodities. Without strengthening procurement processes, KEMSA's operations will not be able to reach their optimal level of efficiency.

We worked to address these challenges and help KEMSA mitigate and whenever possible, resolve the challenges. The program's accomplishments towards achieving its five objectives and associated contract deliverables are discussed in the sections that follow. Annex II provides a list of the contractual deliverables and the activities we conducted to complete each deliverable.

3. Key Achievements

3.1. Strengthening KEMSA's Legal Framework

We strengthened KEMSA's legal framework through enactment of the Kenya Medical Supplies Authority Act No. 20 of 2013. This Act legally established an Authority known as the Kenya Medical Supplies Authority as the successor to the Kenya Medical Supplies Agency established under the repealed legal notice of 17/2000. We helped KEMSA review and update the KEMSA draft Act to comply with leading international practices and relevant local laws and regulations.

We collaborated with KEMSA's key stakeholders and counterparts to develop an advocacy roadmap to garner support and consensus for passage of the draft Act. We confirmed priorities with KEMSA's stakeholders

<p>Key Accomplishments Linked to Contract Deliverables</p> <ul style="list-style-type: none">• Aligned the draft KEMSA Act with the constitution and international standards• Advocated and gained support and consensus for passage of the draft Act• Prepared KEMSA draft Act for submission to the Parliamentary Health Committee• KEMSA Bill assented to by the President on January 14, 2013• Kenya Medical Supplies Authority Act 2013 published in Kenya Gazette Supplement No. 33 (Acts No. 20) on January 25, 2013• KEMSA transitioned to the new institution (Authority) on April 15, 2013• KEMSA upgraded / re-categorized from Category 7C to 7B - the upgrade to 7B allows KEMSA to provide an increased salary scale for staff

and counterparts, including the Legal Director at KEMSA, to accomplish the review and roadmap.

We created linkages with the State University of New York Kenya Parliamentary Strengthening Program and the Parliamentary Initiative Network to better understand the workload and timelines in Parliament and help identify the most effective strategy to bring the KEMSA Act to Parliament.

1) Contract Deliverable: Policy papers drafted and policy developed

We used a two-pronged approach to support discussion of the Act by Parliament. Our first route was to support KEMSA submit the updated draft KEMSA Act to the Ministry of Medical Services (MOMS) to inform development of a Kenya Government Cabinet policy paper.

Our second route was to support KEMSA to hold discussions with the National Assembly for the Parliament to adopt the draft KEMSA Act as a Parliamentary Health Committee Bill. We supported several meetings with legal counsels from the National Assembly Clerk Office, representatives from the Ministry of Health and KEMSA's senior staff to review the draft. These meetings resulted in a consensus between key stakeholders and confirmation that the Bill was in line with Kenyan laws and the proposed health law that was in discussion.

2) Contract Deliverable: KEMSA legal framework developed and fully aligned to its mandate

The KEMSA Bill underwent a successful second reading in Parliament on January 2, 2013 that was subsequently followed by the third reading and moving of the recommended amendment on January 3, 2013. The third reading of the Bill and moving of the recommended amendment effectively created the Kenya Medical Supplies Authority. The Kenya Medical Supplies Authority Act No. 20 of 2013 was assented by the President on January 14, 2013 with a commencement date of January 25, 2013. April 15, 2013 was the transition date from the Kenya Medical Supplies Agency to the Kenya Medical Supplies Authority.

The new Authority has powers clearly spelt out in the new legal framework and its power and management are vested to the Board of Directors led by a Chairperson who is competitively recruited and appointed by the President. All the necessary powers for the proper performance of the Kenya Medical Supplies Authority are now provided to the Authority. The new legal framework provides for competitive recruitment and procedures for removal of the Chief Executive Officer (CEO); and for the financial provisions for the funds of the Authority to effectively carry out its mandate. The new KEMSA legal framework is now fully aligned to KEMSA'S mandate and allows KEMSA to efficiently and effectively perform its operations to deliver on its mandate.

The new KEMSA legal framework allows the Cabinet Secretary to make necessary regulations to effectively implement the major provisions of the KEMSA law. KEMSA in collaboration with the to-be appointed Cabinet Secretary for Health needs to identify areas in the law

provisions that would require rules or regulations to be proposed. There are regulations or rules that will likely impact KEMSA's internal operations, policies and procedures. Others may impact external stakeholders such as county governments and health facilities. Each of these will require a different approach. These regulations will need to be developed immediately when the new Cabinet Secretary of Health is appointed to effectively implement the Kenya Medical Supplies Authority Act of 2013. These regulations also require Parliament debate and approval.

3.2. Strengthening KEMSA's governance architecture and practice

During the taskforce assessment of KEMSA, KEMSA's governance was identified as a key area that required strengthening. To address these weaknesses we strengthened KEMSA's Board of Directors with a focus on corporate governance. We improved various internal board policies and controls and helped develop a robust constitutional framework within the Kenya Medical Supplies Authority Act passed in 2013.

We conducted a Corporate Governance Training for KEMSA's Board and senior management in January 2012. The goal of this training was to strengthen Board Members' knowledge and understanding of corporate governance and to help them understand their duties, roles and responsibilities, and the challenges of good corporate leadership.

We trained KEMSA's Board, Departmental Directors and senior management on organizational development and change management to support KEMSA develop and implement a clear "roadmap" to achieve its mandate. During this training several key areas were reviewed including: concepts of high performing boards; setting clear divisions of roles and responsibilities; supervision; performance reviews; management functions; the importance of having appropriate checks and balances; professional development; and risk identification and management.

We trained KEMSA Board Members, Departmental Directors and senior management in finance for non-accountants to strengthen their capacity to provide appropriate financial oversight and improve KEMSA's governance. The training covered financial management governance, asset management, operational efficiency, working capital management, risk management and financial reporting.

We revised the Board Charter to strengthen **internal controls and to support long-term governance sustainability**. The Charter defines KEMSA's corporate governance policy and the respective roles, responsibilities and authorities of the Board and its oversight in the governance, management and control of KEMSA.

3) Contract Deliverable: A corporate governance structure has been defined

The new Authority has its powers clearly defined in the new legal framework. The Authority's power and management are vested to the Board of Directors led by a Chairperson who is competitively recruited and appointed by the President. The new legal framework supports competitive recruitment, defines procedures for removal of the CEO and for funding. The new KEMSA legal framework is fully aligned to KEMSA's mandate and allows KEMSA to efficiently and effectively perform its operations to deliver on its mandate.

We developed several structures, tools and processes to support effective governance including the areas of human resource management, ethics and nomination procedures. We helped KEMSA develop three Board Committee Charters listed below. The charters address the roles, responsibilities, authorization, activities and reporting relationships of the committees within KEMSA’s Board of Directors. The committees will function as advisory committees to the Board of Directors.

Human Resources Committee Charter: The committee will assist the Board with respect to the establishment and ongoing effectiveness of KEMSA’s overall human resource strategy and policies. This includes reviewing management’s plans and programs for the attraction, retention, succession, motivation, and development of the human resources needed to achieve KEMSA’s objectives.

Ethics Committee Charter: The committee will assist the Board with corporate ethics and conflicts of interest. The general goals and objectives of the Committee are to assist the Board and management to help ensure that KEMSA is in compliance with legal and regulatory requirements and international standards and practices in the area of corporate ethics.

Nominations Committee Charter: The committee will assist the Board to identify individuals qualified to hold Board positions. The Nominations Committee will recommend to the Board a list of candidates in line with the KEMSA Act and advise the Board regarding the structure, operations, performance and effectiveness of the Board, including its committees, and the performance of the CEO and Board Chairman.

Key Accomplishments Linked to Contract Deliverables

- Aligned the Board structure and its roles and responsibilities with the new legal framework
- Strengthened internal controls to support long-term governance sustainability
- Developed tools to guide effective governance

4) Contract Deliverable: Defined operating procedures that ensure strong program management capabilities, effective and efficient delivery of contract requirements and achievement of performance indicators and targets

We conducted a review and mapping of existing ‘as-is’ finance process flows and identified gaps against leading practices to standardize and benchmark KEMSA’s financial systems. We helped KEMSA develop the ‘to be’ finance processes and an implementation plan. We supported KEMSA to develop their Finance Management and Accounting Manual based on the improved future state processes that were mapped and validated. The manual includes critical information including mapping specific business processes to staff positions and details the frequency and authorization levels required to complete each task. The manual articulates the improved accounting policies recently adopted by KEMSA.

We reviewed and updated KEMSA’s finance SOPs based on the future state processes to support the operationalization of the Finance and Accounting Manual. The SOPs describe the systematic work activities necessary to implement the procedures outlined in the Finance and Accounting Manual and help standardize how different activities are carried out in

KEMSA's Finance Department. We trained KEMSA's finance staff on the updated finance business processes through interactive sessions.

We conducted an ERP gap analysis with three main objectives: 1) evaluate KEMSA's ERP finance processes against the needs and requirements of KEMSA; 2) test the ERP capability against "to be" finance processes functionality; 3) identify gaps. We helped KEMSA develop a work plan in collaboration with the ERP system developer based on the gaps identified. The ERP gap analysis includes both user identified issues and leading practice functionality. We supported KEMSA to develop a tool to track identified issues and their resolution timeframe and rate in collaboration with the ERP developer.

We helped KEMSA revise their Internal Audit Charter. The Charter defines KEMSA's policy on internal audit procedures, the associated scope and authority for each function of the internal audit, and how the functions relate to the Board Members through the Audit Committee and senior management. We reviewed and helped KEMSA to update their Internal Audit Operations Manual to comply with the industry standards and to guide how their Internal Audit Committee will perform activities including assessment of the risk management, control, and governance systems in KEMSA.

We supported KEMSA to develop an Institutional Risk Management Framework to identify, assess and manage risk that may impact the achievement of its mandate, vision, mission and objectives. We carried out security risk assessments in Nairobi (Commercial Street and Embakasi) and at regional depots (Eldoret, Garisa, Kakamega, Kisumu, Meru, Mombasa, Nakuru and Nyeri) and identified weaknesses. We conducted training on risk management for KEMSA's Departmental Directors and senior management team to complement and reinforce the Institutional Risk Management Framework. We helped KEMSA to develop and institutionalize risks registers in all departments and majors units including Customer Service, Procurement, Quality Assurance, Distribution, Warehouse, Finance, Human Resources and Administration, Information and Communications Technology (ICT), Internal Audit Department, Supplementary Services Division (SSD), Legal Services Department, Public Relations & Communications and Security.

The defined **operating procedures help strengthen KEMSA's program management** capabilities and provide an effective and efficient delivery of contract requirements and achievement of performance indicators and targets. With implementation of the new tools and processes the Finance Department's performance has shown remarkable improvement. For example, bank reconciliations preparation time variance has reduced from 4 days to full adherence with its SOP in all quarters from April 2012 to March 2013. The time to process the replenishment of depots standing imprest has reduced from 3.7 days in March-April 2012 to 1 day in the final quarter from January to March 2013. The time it takes from receipt of suppliers' invoices to be paid has reduced from 8.32 days in March to April 2012 to 6.93 days for the second year of the project (June 2012 to March 2013). KEMSA can now regularly collect financial data that can be used to inform operations, policy and advocacy decisions.

5) Contract Deliverable: Advocacy plan in place for increased budget allocation and quarterly financial disbursements to KEMSA by Treasury and MOMs/MOPHs

We strengthened KEMSA's financial, accounting and audit processes and functions. We helped KEMSA to benchmark the financial controls, budgeting, planning and forecasting, monitoring and tracking to meet international ethics and standards. With our support, KEMSA now regularly collects financial data to support operational and policy decisions.

KEMSA analyzed its procurement and distribution costs to justify that its services are more cost effective than any other supply chain organization in the country. Using this data KEMSA has been able to advocate and convince stakeholders to shift funding directly to KEMSA. KEMSA is now able to claim distribution fees from the Ministry of Health and were reimbursed for every distribution cycle upon invoicing the Ministry of Health and on provision of proof of delivery (PoDs).

6) Contract Deliverable: Audit and Monitoring and Evaluation (M&E) departments established to strengthen the management control function

Prior to initiation of the KEMSA Support Program, KEMSA had identified the need for an Internal Audit Department. Two Internal Audit Officers had been recruited. The Internal Audit Manager was later recruited in July 2011. We worked closely with the Internal Audit Manager to fully operationalize KEMSA's Internal Audit Department. We carried out an assessment of the Internal Audit Department and defined the relationship between the department and Board Audit Committee and the CEO. We helped KEMSA develop an Audit Committee Charter that provides the purpose, authority, and responsibility of the Internal Audit Department and the role of the Audit Committee in setting the scope of internal audit activities. We mapped out Internal Audit Department processes and documented the existing "as-is" processes. We benched marked "as-is" internal audit processes to International Internal Auditing Standards and the Kenya National Audit Office to establish gaps. We developed and discussed with the Internal Audit Department the "to be" processes. We reviewed and updated with KEMSA the Internal Audit Manual and developed internal auditing SOPs based on the "to be" processes that were mapped and validated.

To institutionalize use of the SOPs and the manuals, we provided on-the-job and formal training for internal audit personnel. In order to sensitize the department heads on the role of the Internal Audit Department we included heads of departments during the training. The current Internal Audit Department is independent from the management and implements Board-approved policies to ensure the integrity.

The Performance Management Unit, an organizational group created under the Planning and Continuous Improvement Department, will serve KEMSA's M&E functions. It is discussed in greater detail in the Section 3.5.

7) Contract Deliverable: Debtors' management system defined to allow for timely payment to suppliers by KEMSA based on agreed procurement contract

Debtor management is central to the effective cash flow of KEMSA. To strengthen KEMSA's debtors control system we initiated discussion between the Finance and Operations Departments to streamline the flow of PODs between the two departments. Previously, there were delays of submission of the PODs from the transporters to the Distribution Department and from the Distribution Department to the Finance Department. The delay of the POD document submission was slowing Ministry of Health invoicing and resulted in high debtor days. To improve the billing process and subsequent cash inflow from the government, we developed an SOP on POD management that included settling supplier payments in a timely manner. We also developed SOPs on supplier payment processing and debt management in the SSD department. The Finance SOPs Manual has a chapter detailing the processes for efficient processing of suppliers' payments. The Procurement Manual has detailed procedures to ensure transparency in management of tenders including publication on KEMSA's website. The manual was developed taking into consideration the Kenyan legal

framework and international procurement standards. These documents help ensure that KEMSA is invoicing the Ministry of Health immediately after each distribution cycle using copies of PODs applicable to each distribution cycle.

The Finance Department currently requires that the transporter invoices must be accompanied by a POD for any payment to be processed. KEMSA is able to create a list of debtors, conduct monthly debtors aged analysis, and create a debtors outstanding chart to identify potential cash flow improvements and to minimize overdue payments.

In early 2012 only 12% of PODs were returned to KEMSA on-time by transporters. In the final measured quarter between January and March 2013, this value had increased to 73% and 55% for hospitals and rural health facilities (RHF), respectively. This dramatic increase led to improvement in supplier payment lead times and faster accounts payable turnover.

Currently, the Finance Department is undergoing a review of their existing structure with the aim of strengthening its function for better service delivery. One of the objectives is to strengthen the credit control and accounts receivables functions to coordinate the invoicing and collection of debts from various organizations.

8) Contract Deliverable: Performance MOUs developed between KEMSA and the ministries, key partners and health facilities established and monitored on a quarterly basis

From July 2011, KEMSA signed a memorandum of understanding (MOU) with the World Bank and the KFW-German Development Bank for procurement and distribution of modern contraceptives and with the Global Fund through Treasury for procurement and distribution of HIV-related commodities. In 2012, KEMSA entered into a Fixed-Amount Reimbursement Agreement with USAID for procurement, warehousing and distribution of USAID-financed health commodities.

The development of many of these MOUs has been due to the realization by stakeholders that KEMSA has improved its processes in procurement, warehousing, inventory management and distribution as well as their improved financial management and accounting practices. KEMSA has used its improved services to convince stakeholders and donors to either shift funding directly to KEMSA or to use its procurement and distribution services.

We developed KPIs that can help KEMSA monitor progress towards agreed-upon MOU indicators and to effectively track the performance of each MOU.

9) Contract Deliverable: Critical documents and information e.g. tenders and awarded contracts posted on the KEMSA website and meeting the national and international standards for dissemination to promote transparency and good procurement practices

In 2010, KEMSA signed a contract with the World Bank. As part of this contract all tenders and awarded contracts were to be posted on the KEMSA website and to meet the national and international standards for dissemination of information. KEMSA currently is using its website for all tenders and awarded contracts and follows procedures in line with national and international standards in promotion of transparency and good procurement practices.

We supported KEMSA to develop KPIs and built their capacity to collect and analyze their performance data. We anticipate that KEMSA will be posting some of the data generated

from their PMP, such as number of stock-outs and targets met, to their website. This will demonstrate progress to stakeholders and hold KEMSA accountable to its clients.

10) Quality Assurance (QA) Program that ensures commodities meet contractual and product specifications developed and operationalized

Quality assurance is critical in supply chain processes. To ensure that the quality of health commodities is guaranteed at the procurement and warehousing level, KEMSA relies on policies and procedures enforced by the Poisons and Pharmacy Board (PPB), registration, Good Manufacturing Practice, and the National Quality Control Laboratory (NQLC) for product laboratory evaluation. In close collaboration with KEMSA, NQLC and PPB, we reviewed and updated the SOPs to help ensure products procured are in line with the products registered in the country and sample testing is appropriately sent to NQLC for testing being mindful of the turnaround time for the reports. This helps minimize the duration that the products stay in the quarantine section.

We reviewed the product master list codes and description, and standardized the product codes and description to prevent procurement of redundant products and to improve inventory management. We assisted KEMSA to create a policy and process for creating and retrieving products codes.

We helped KEMSA improve the quality control of commodities in transit to the health facilities by contractually requiring transporters to meet good warehousing and distribution practices for pharmaceuticals and related products. This helps ensure that trucks used for distribution of pharmaceuticals and related products meet the prescribed specifications and that the outsourced transporters do not change the trucks after picking up products from KEMSA.

11) Contract Deliverable: SOPs that ensure on-time delivery of drugs and medical supplies to all levels of facilities developed

We mapped out with KEMSA operating procedures that help ensure on-time delivery of drugs and medical supplies to all levels of facilities. Using the identified procedures we developed SOPs that detail cycle and weekly planning and customer service procedures to improve on-time order requests from facilities.

To institutionalize the use of the SOPs we conducted on-the-job and formal training to warehouse and distribution staff. We developed master routes for more efficient transporter delivery and KPIs to monitor on-time delivery, planning accuracy and warehouse picking and turnaround time.

3.3. Strengthening KEMSA's inventory management and tracking systems

In the past, KEMSA had difficulties in accounting for commodities in its distribution pipeline and several donors stopped using KEMSA to procure, warehouse and distribute commodities. We integrated leading practices in inventory planning and tracking into KEMSA's operations, developed new tools, and strengthened staff inventory planning skills to help KEMSA procure, warehouse, distribute and report effectively on health commodities.

12) Contract Deliverable: Relevant logistics tracking and reporting tools developed

We developed a new customer complaint tracking tool with associated metrics for the Customer Service Department to improve tracking of commodities. We trained customer service staff on the use of the new tool and implemented use of the tracking tool as part of the new Customer Service centralized Complaints Management Unit. We developed several reporting tools such as the Field Customer Service Officer Weekly Summary Report, and the District and County Summary Reports. These reporting tools help standardize the processes for monitoring and addressing complaints received and communicated to customer service staff and stakeholders.

We worked with KEMSA to develop a package of reports to use as tracking tools to help improve inventory visibility, including:

- **KEMSA Supply Planning Report:** This report provides a 12-month projection of inventory availability based on a monthly forecast and current procurement pipeline orders.
- **KEMSA Customer Order History Report:** This report shows a year over year display of past customer order history.
- **Overdue Procurement Order Report:** This report is derived from the Procurement Pipeline Report and identifies procurement orders with the date promised in the past.
- **Order/Issue/Receipt Report:** This report provides a historical perspective of customer order history versus what KEMSA issued and the amount received in a corresponding month.
- **KEMSA Customer Order to Date Report:** This report tracks customer order quantity to date for a commodity against the forecast for the quarter/cycle.
- **KEMSA Forecast Accuracy Report:** This report provides the quarterly/cycle forecast error statistics.
- **Ad Hoc Reporting:** The supply chain planning function confronts many different scenarios that make it difficult to design a report for all of these situations. Ad hoc reporting allows the planner the flexibility to access information in the manner and at the time, they choose. This capability is generally found in an environment using a data warehouse.

Key Accomplishments Linked to Contract Deliverables

- Designed new customer service complaint and orders tracking tools and inventory planning tools to log complaints and track receipt of facility orders and processing progress
- Developed customer service SOPs and trained staff on the SOPs
- Developed LMU integration plan; renovated and furnished offices
- Conducted ERP/WMS gap analysis, ICT diagnostic analysis and inventory analysis

We developed the Distribution Planning and Tracking Tool. This MS Access-based tool filled key gaps in the ERP's distribution module, strengthening the distribution planning process, tracking of customer order shipments, and automating the production of distribution metrics results.

These Excel and Access tools are an interim solution until ERP/WMS improvements are completed. The ERP improvement will allow KEMSA to strengthen management of relationships with the health facilities and other stakeholders through better tracking of customer feedback and management.

We helped KEMSA develop and institutionalize a schedule to assess inventory status to determine obsolete commodities. This schedule assists KEMSA to identify short-dated stock and provides KEMSA with an early warning signal to prompt management discussions. We introduced a one-page scorecard which gives KEMSA's CEO and Directors a single page overview of KEMSA's performance. The scorecard tracks inventory and operational performance and provides an early warning mechanism for inventories and supply chain operational plans which may require corrective actions. The scorecard helps improve and track KEMSA's performance.

We conducted training, mentoring and coaching of customer service staff to track and follow up on facilities' complaints for commodity ordering and distribution using the interim customer complaints management tracking tool. Customer service staff recognized the advantages of logging complaints through the complaints tool. KEMSA staff can use the tool for quantifiable analysis of customer complaints which were not previously available. We trained customer service staff on leading practices and essential skills including communication, email etiquette, qualities of effective Customer Service Assistants and complaints management. The training strengthened the readiness of the Customer Service Department to function as an integrated unit with the LMU.

13) Contract Deliverable: LMU operationalized for optimal functionality of the logistics data management system through timely and accurate input of consumption data and preparation of appropriate logistics reports for use in forecasting, quantification and other logistics purposes as required by programs and other key stakeholders who put their commodities through the KEMSA procurement and supply chain system

Due to the increasing business needs of KEMSA, there has been a heightened need to improve the customer service function. We reviewed KEMSA's Customer Service Department and helped KEMSA redesign the customer service function in a more rational way. During the review meetings, we held discussions that included key customer service concerns from the perspective of the customers; events and trends that will shape the customer service function in the future; current activities performed by staff; overlap within the current customer service function and between customer service and the LMU; and gaps within the current customer service function. Based on this discussion, KEMSA recognized that the LMU was duplicating the customer service function and that there was a need to integrate the LMU into KEMSA's Customer Service Department.

The detailed analysis of the Customer Service Department and the LMU provided information that was used to redesign a new customer service organogram, functions, job descriptions and an integration plan for the LMU into the KEMSA Customer Service Department. As part of the implementation plan we mapped out potential resistance to the LMU integration and developed mitigation strategies. We conducted a skills gap analysis to align staff with their proposed role within the redesigned structure and conducted training, coaching and mentoring to help strengthen skills.

We redesigned the office layout for the new Customer Service offices based on functional work requirements. We helped KEMSA to separate the complaints team from their order processing team to contribute to a work environment that encourages efficiency in both functional areas. We supported the physical move of the LMU team from Commercial Street to the Embakasi Warehouse and provided furniture for the redesigned Customer Service offices based at Embakasi Warehouse.

We conducted and completed a review and mapping of existing 'as-is' processes of the customer service functions including the areas of customer complaints processing, customer order processing, and goods return processing. We identified gaps, mapped processes against leading practices, and used the analysis to develop the 'to be' customer service processes and implementation plan. Based on the 'to be' customer service processes we updated the customer service SOPs and conducted on-the-job and formal training of staff on use of the SOPs.

To enable timely availability of data for decision making and enhance tracking of commodities, we analyzed the current logistics management information system (LMIS). We built consensus across stakeholders on the need for an integrated LMIS framework for health, defined the framework for a harmonized and standardized national system, and reached agreement on implementation of the system. This led to KEMSA initiating the development of a national LMIS module which is proposed to be hosted by KEMSA with linkage to the District Health Information System. The new LMIS has been developed, tested and a rollout plan is being implemented.

Customer complaint response time can now be tracked and has shown an upward trend. In the last reporting period, 65% of complains were addressed within 48 hours. Efficient complaints tracking, feedback and resolution due to improved accountability of customer service staff will help strengthen customer satisfaction. When the LMIS is fully operational the visibility of facility orders and controls for commodities will be greatly improved.

14) Contract Deliverable: ERP system strengthened and inventory management system developed to ensure timely availability of data for decision making and visibility of and ability to track all commodities in the supply chain pipeline

Towards strengthening the ERP, we completed a review and analysis of the ERP system and identified issues and leading practice functionality gaps, which if resolved would enhance the value derived from its usage by KEMSA. We developed a supply chain issue resolution framework between KEMSA's contracted ERP implementer (Alliance Technologies) and KEMSA. The framework categorized the issues into system logic/error issues, mismatched business process issues, omitted functionality, poor system response issues and reports. The issue resolution framework informed the management of key issues, risks and changes requested. Through this framework, Alliance Technologies was able to resolve some of the identified end user issues.

We evaluated ICT infrastructure against performance requirements including capacity to support KEMSA's current and future needs taking into account factors that included component failure, the ability of the ICT Department and contracted third party firms to resolve reported incidences, operational efficiency and security. Key findings included weaknesses in the approach adopted to introduce the ERP into KEMSA; lack of alignment of the ERP to users system requirements; lack of integration between ERP and LMIS resulting in

double capture; limitations of the IT infrastructure capacity; and inadequate IT capacity to support the ERP.

Where possible, we supported KEMSA's ICT to automate metrics reporting through standard reporting in the ERP. By the end of the project numerous KPI results were visible by ERP users and exportable to formats such as Excel and PDF for informed decision-making and process improvement.

While the ERP's Distribution Module is under development, there was the need for an interim tool to assist the Distribution Department to plan, dispatch, and report metrics. To fill this gap, we developed the MS Access-based Planning and Distribution Tracking Tool to provide a series of easy-to-use forms for critical distribution processes, including:

- Develop the weekly and quarterly distribution plan
- Track trucks requested and made available by transporters
- Consolidate orders into trucks and their routing
- Monitor POD returns
- Track damaged products and distribution-related complaints
- Automate performance metrics calculation and other standard distribution reporting

We also helped KEMSA to establish collaborative supply chain planning forums based on industry leading practices. The forums provide an institutionalized mechanism to track commodities in the procurement pipeline and on-hand inventory. By tracking inventory in this periodic forum, KEMSA can identify shortages early on and make timely decisions to expedite procurements to avoid stock outs.

3.4. Strengthen KEMSA's warehousing and distribution systems

15) Contract Deliverable: A planning department established to support the management function

The process required for procurement, inventory, demand, and distribution planning would not be viable without staff assigned to develop and oversee operational plans. Currently, KEMSA's departments are all assigned to supply chain execution functions (e.g., procurement, warehousing, distribution, customer service, etc.). Therefore, an additional unit is required to perform the tasks required to collect and analyze execution data and then draw up supply chain plans to achieve organizational objectives.

Together with KEMSA we designed a Technical Planning Unit to manage and administer their supply chain planning processes. We defined the planning requirements and the primary processes required for the Technical Planning Unit. The Technical Planning Unit will be responsible for demand planning, inventory planning, supply/procurement planning, and distribution/load planning processes. The Technical Planning Unit will be expected to conduct supply chain performance review meetings to discuss performance measurements and resolve underlying problems through root cause analysis.

We developed the unit's organogram and the functions/roles and responsibilities for the different positions in the unit. We identified skills and the training required for the unit to effectively manage its operations. We prepared a design that considered the need for tracking performance measurements and continuous improvement in supply chain operations and procurement practices. When implemented, the Technical Planning Unit will have a dual role of managing supply chain planning and coordinating KEMSA's continuous improvements based on performance management feedback within the operations and procurement areas.

The Technical Planning Unit will provide KEMSA with the visibility that it presently lacks through a dedicated team which will focus on commodity and overall supply chain planning and eliminate the reactionary measures that currently exist in the supply chain. We developed SOPs and tools for use in the unit as well as job descriptions for all positions within the proposed planning unit. Discussions are underway for recruitment of the positions.

16) Contract Deliverable: A functional and responsive SSD developed and sustained to supplement funding deficits and promote sustainability

Currently, the SSD has no staff but support is being provided through the Capacity Program Business Development Advisor. To assist the SSD, we developed SOPs and supported infrastructure improvements that strengthen KEMSA's overall system including SSD. We defined a billing structure for SSD transport costs and supported development of a SSD ERP module.

Key Accomplishments Linked to Contract Deliverables

- Designed the Planning Unit structure; submitted to CEO for Board approval
- Conducted a Strategic Network Optimization Analysis
- Developed new Transporter contracts based on SLAs and leading practices
- Completed warehouse infrastructure improvements such as lighting, security

17) Contract Deliverable: Distribution plans that are responsive to the needs of health facilities and priority programs developed

We conducted an analysis of KEMSA's three primary distribution functions - planning, dispatch, and transport. We examined each function for bottlenecks in performance. We helped KEMSA identify improvement areas and key opportunities to enhance distribution operations.

We implemented formal tracking mechanisms for cycle and weekly planning activities, and established working groups to assist with parallel distribution and commodity movement from warehouse to distribution. We completed prioritized warehouse infrastructure improvements. Our team garnered support for additional KEMSA distribution staff including a Data Entry Clerk and three additional Loaders. We helped KEMSA establish improved processes for delivery note creation and transfer. We conducted a layout analysis and space planning of dispatch and surrounding warehouse areas. These activities helped optimize commodity and material handling equipment movement and flow.

We reviewed and updated distribution SOPs, initiated weekly and cycle planning meetings based on customer orders and helped KEMSA publish regular distribution schedules to all stakeholders. We conducted on-the-job and formal training of distribution staff on the use

of the updated SOPs. We helped KEMSA develop and implement KPIs and metrics to track performance and support evidence-based decision making.

18) Contract Deliverable: A physical warehousing network structure that supports a 'pull' supply chain system defined and operationalized

KEMSA currently distributes the majority of medical supplies from its main warehouse at Embakasi based in Nairobi, through 3rd party transporters. KEMSA has 8 regional depots: Eldoret, Garisa, Kagamega, Kisumu, Nakuru, Nyeri, Meru and Mombasa. These depots are mainly used as overflow storage and currently no distribution to facilities is conducted from any regional depot.

KEMSA has recognized that although most facilities are within reach of Nairobi, a decentralized approach may offer better customer service as decentralized distribution centers will be able to offer more cost effective distribution if more frequent deliveries are required, compared to the centralized structure. With Kenya moving towards devolution in terms of governance it is very likely that the new county structure will place new demands on KEMSA to move away from an exclusive centralized approach. The future commercialization of KEMSA, as currently enabled through the SSD, will require increased service delivery and customer service flexibility to compete against external commercial companies.

To assist KEMSA in making decisions for the optimal distribution center locations, we conducted a strategic network optimization analysis to evaluate KEMSA's current supply chain network including the review of current depot locations and potential conversion to full-fledged distribution centers. We compared alternative options for a strengthened future-state network.

We conducted depot site visits to understand the operational constraints that KEMSA faces. After the site visits, we built current state and baseline models to reflect current product flows, vehicle usage and actual distribution costs as per outsourced transport rates. We generated future state scenarios and reviewed and validated the scenarios with KEMSA's management. Future scenarios were reviewed based on optimal placement of distribution centers across Kenya based on demand volume from the facilities and best cost comparisons from 2013 to 2030.

Detailed costing indicates that the three distribution center scenario with current delivery frequencies (quarterly) would be more optimal compared to the current centralized distribution model. Based on the analysis we recommended that three distribution centers located in Nairobi, Kisumu and Mombasa would provide the most optimal logistics network. In 2017, it would result in a potential 2.1% (KES 24 million) reduction in annual operating costs if compared to the centralized distribution strategy. The 3-Distribution Center scenario would improve the responsiveness of the logistics network from a current state of 4-hour delivery reach of 39% of facilities, to 84% of facilities. The 4-hour delivery reach was used as the measure of customer service since it will allow for delivery and return to a distribution center within one day. The 4-hour delivery reach is deemed as a good measure of the supply chain responsiveness. This could result in improved customer satisfaction. We recommended that the implementation be phased to ensure it is manageable and that organizational learning is obtained with the roll-out of each additional distribution center.

We also conducted an assessment of the Kisumu, Mombasa and Nyeri regional depots to identify potential improvements required to provide warehousing of medical commodities.

The assessment indicated the depots will require increased warehouse height, floor leveling, pallet racking and removal of the cold rooms from the warehouse floor to an alternate space.

19) Contract Deliverable: Freight forwarding, distribution and warehousing services that promote efficient and secure delivery of commodities institutionalized

Previously KEMSA contracted seven companies for their distribution services of commodities throughout the country. However, adherence to processes, policies, and contractual agreements were not being practiced, and carrier performance was not being monitored. This led to inefficient customer delivery times and ineffective freight costs. Delayed creation of local purchase orders caused delayed freight payment to carriers. Contract management processes to drive carrier compliance were almost non-existent.

We conducted a root cause analysis and identified contributing factors, including an unsanctioned practice in which some carriers used one truck for KEMSA commodity pick-up and stored the commodities at their own facility, awaiting arrival of other trucks to deliver the load to the field. Low truck availability, weather constraints, and coordination with private (and local) security teams further contributed to delivery issues.

We helped KEMSA to form a Transport Contract Working Group with the mandate to review existing contracts and identify areas to strengthen future tender and distribution contracts. The group reviewed and strengthened KEMSA transport carrier contracts and the framework to contract new transportation service providers for the period of July 2012 to June 2015. The new transporter contracts are based on service level agreements (SLAs) and include requirements linked to on-time delivery and on-time return of PODs to support transporter accountability. The new contracts allow KEMSA to track third party trucks via Global Positioning System (GPS) tracking. Implementation of the new transport carrier contracts led to strengthened distribution services that promote the efficient and secure delivery of commodities.

We conducted a comprehensive distribution analysis with detailed examination into processes, transport carriers, transporter contracting mechanisms as well as policies, employees' roles and responsibilities, and related technology. Based on findings from the distribution analysis, we supported KEMSA to implement formal tracking mechanisms for cycle and weekly planning activities. We helped KEMSA to form working groups to assist with parallel distribution and movement of commodity from Commercial Street to Embakasi warehouse. We assisted KEMSA to define the required structure and scope for the appointment of additional staff in distribution. We worked with KEMSA to create new processes for combined invoice and delivery note creation which reference the health facility's unique Master Facility List code to help optimize commodity movement and flow.

We supported KEMSA develop and implement KPIs to track distribution/delivery to help optimize load and delivery using new master routes. These changes led to improved transit time and transporter on time delivery. Plans are underway to include GPS tracking to further improve in-transit visibility and security of the commodities.

We conducted a Push to Pull Impact Assessment to assist KEMSA to transition from a push to pull system. We analyzed the expected impacts of the push to pull transition. We identified key areas to help KEMSA address including the increase in effort required to capture facility orders; the substantial increase in fine picking - which is much more labor intensive than bulk picking of kits; and de-kitting of existing kits to enable stock to be picked as separate commodities.

We supported KEMSA to review and update transportation contracts to include monitoring processes, to improve transport of medical commodities. We helped KEMSA to execute transport carrier performance audits, and recommended a Transportation Management System with enhanced tracking via GPS/Radio Frequency Identification capabilities. We reviewed and streamlined reverse logistics processes with penalties for non-adherence, including delivery time/duration expectations as well as driver/loader roles and responsibilities. These requirements were used to contract new transporters.

20) Contract Deliverable: Warehouse system that meets internationally acceptable standards created

We procured additional handheld devices to improve picking processes. The picking and consolidation processes rely on handheld scanners and the numbers of handheld devices were found to be inadequate and did not allow for simultaneous picking, consolidation and dispatch. The result was that the consolidation process was being performed during the night shift with only emergency consolidation being completed during day shifts. To address this shortcoming we procured 26 additional handheld scanners to allow KEMSA to be more efficient.

With project support, a closed circuit television system was installed in the warehouse to provide enhanced surveillance inside the Embakasi warehouse and also directly outside on the exterior of the warehouse. This will guard against commodity leakage as well as enhance overall security of the warehouse and safety of the staff. A fire control system was installed to secure the warehouse against fire. A temperature system was installed to provide optimal temperatures within the warehouse. We supported installation of an additional lighting system to enhance lighting within the warehouse.

We purchased prioritized personal protective equipment (PPE) – protective clothing, helmets, goggles, and shoes – for use by KEMSA's warehouse personnel. The effective use of PPE helps prevent job-related occupational safety and health risks. We provided PPE storage lockers in the Embakasi warehouse changing rooms. We provided training to over 200 KEMSA staff on effective use of the protective gear to enhance compliance on use of PPE. This training provided staff with knowledge on the importance of and how to use PPE to help reduce their job-related occupational safety and health risks.

We supported KEMSA to upgrade aisles and racking in the main warehouse to help ensure that the height of the warehouse is fully utilized. We created a total of 660 new pallet storage spaces in the Embakasi warehouse by adding an additional bin layer to the top of the identified aisles to create more storage space. We moved the bottom bin level steel beam to the top level to achieve cost effective creation of new bins. This increased the total pallet space available in the Embakasi warehouse from 9,556 to 10,216 (9% increase).

Regional depots were assessed to identify current distribution channels, available regional warehouse infrastructure and challenges and opportunities in regional depots. The key highlights identified during the assessment include lack of automation within the regional depots; inadequate ICT infrastructure/systems (i.e., access to ERP/WMS); presence of short headroom within the regional depots making it impossible to achieve significant optimization using racking systems; and underutilization of regional depots. The depots are utilized for stock overflow receipts from suppliers. Most of the processes within the regional depots were noted to be manual processes, which are labor intensive leading to a lack of visibility of depot stocks at the central warehouse. Three depots (Kisumu, Mombasa and Nyeri) were identified and prioritized for upgrade which will involve raising the roof to enable standard racking to be installed and moving of the cold rooms to alternative positions to create additional warehouse space.

Towards improving good warehousing practices we updated the Warehouse Manual and SOPs, and provided on-the-job and formal training to warehouse staff. We also provided training on leadership and management skills and change management to enhance warehouse staff performance.

21) Contract Deliverable: Facility list mapping developed and updating procedure defined

We supported a facility list mapping exercise using a consultative process. Each facility was aligned to GPS coordinates provided by the Ministry of Health. The health facility data points were used for distribution route optimization and to develop Distribution Master Routes. The exercise involved working closely with KEMSA distribution staff to understand the routing challenges during the day-to-day activities and translating this knowledge into a conceptual data set for lists of distribution routes.

Various simulations were conducted based on optimal load sizes (i.e., maximum number of cartons, pallets per shipment), truck sizes, projected travelling speed and business criteria such as turnaround times, with the objectives of maximizing vehicle utilization, and minimizing number of trips and kilometers travelled. Facilities were grouped into various zones and routes. Hospitals formed a total of six zones, with one route having three facilities except Provincial General Hospitals whose orders are very large. Rural Health Facilities had a total of 10 zones and 158 routes.

Once all routes were established, we completed a preliminary validation process to assess the viability of the generated routes and the accuracy of the geocode data of the facilities. This process included county rationalization where zones were aligned to county borders. Manual adjustments were completed where routes were regenerated based on additional intelligence such as bad road conditions in certain areas. Geocode changes were shared with relevant stakeholders including the Ministry of Health for the continuous improvement of data. Using the facility data points and GPS coordinates we developed optimized distribution routes and master routes. The distribution routes and master routes were part of the contracting negotiations with third party distribution and transport service providers. KEMSA will need to continue with physical validation of routes and adjustments as required.

We supported meetings with Ministry and KEMSA to discuss the collaborative process for updating the facility mapping. We worked with KEMSA to define the procedure to update the facility list in the SOPs for customer service and distribution.

3.5. Support for KEMSA's performance management plan

We helped KEMSA to develop and implement a comprehensive, technically-sound PMP. KEMSA staff now use performance results for routine decision making and target actions based on metrics results to drive operational improvements.

We delivered key trainings and provided mentoring and coaching in a variety of areas from relevant Excel skills to data management and quality and data collection tool usage.

Key Accomplishments Linked to Contract Deliverables.

- Developed KEMSA's Performance Monitoring Plan
- Developed and implemented tools and strengthened the use of the ERP for KPI data collection and management
- Created a Performance Management Unit
- Established KEMSA's M&E Champion Program

Performance management was a key component in all SOP training. In July 2012 the project conducted a Data Demand and Information Use Workshop to 22 KEMSA staff, including senior operations and finance leadership and all M&E Champions.

The project assessed KEMSA's data collection tools, including the ERP system, and filled gaps by modifying the existing instruments or introducing new ones and training staff in their use. Where applicable, we gave preference to supporting existing systems such as the ERP and today, a considerable number of KPIs are now calculated using ERP data. Many of the indicators, such as Picking Rate, became automated reports in the ERP. Where the tools were particularly weak or lacking entirely – such as the Distribution Department – we introduced systems such as the MS Access-based Planning and Distribution Tracking System.

22) Contract Deliverable: A competitive and transparent system to procure, warehouse and distribute required commodities to health facilities in a timely manner developed and sustained

A strong performance management system is critical for KEMSA to procure, warehouse and distribute required commodities to health facilities in a timely manner. KEMSA staff now use performance results for routine decision making and to identify gaps and drive operational improvements.

In the interest of sustainable impact, Actionable Information Use presentations were led by KEMSA's M&E Champions from Customer Service, Warehouse, and Distribution. In the operations staff meetings, the M&E Champions present metrics results, interpret the findings, and make recommendations for action to address performance challenges. They review the actions from past presentations and what has been done to address the challenges. These presentations guide discussions and encourage cross-departmental collaboration, highlighting the need for greater integration across the various groups.

23) Contract Deliverable: PMP developed and shared with policy makers and key stakeholders semiannually

We developed KEMSA's PMP *with* KEMSA, not *for* KEMSA. KEMSA team members participated in all stages of its development, prioritizing performance areas, developing KPIs, and highlighting M&E systems strengthening needs. The PMP document was a natural by-product of the collaboration between the project and KEMSA. Although the initial vision for managing the PMP was through a PMP Task Force, the project recommended a more formalized, sustainable structure for PMP implementation and management. As a result, KEMSA agreed to form a Performance Management Unit and appointed a team member to assume the responsibilities for its creation and staff hiring. The unit's SOPs have been documented and staff job descriptions were detailed. By the end of the project, KEMSA embraced the performance-based culture and departments integrated PMP implementation activities into KEMSA's 2014 Business Plan. Using the Business Plan as the channel for implementation avoids the need to have a separate action plan solely for the PMP and ensures buy-in from KEMSA leadership and implementing groups through sustainable mechanisms.

We developed key information products for KEMSA leadership and managers. For example, we rolled-out the Executive Performance Management Dashboard for KEMSA Directors and the CEO. The dashboard includes KPIs, procurement information, expired stock data, finance summaries, and ERP performance details. The dashboard tracks inventory and operational performance and provides an early warning mechanism for inventories and supply chain

operational plans which may require corrective action. The dashboard will help improve and track KEMSA's performance and provide critical transparency into actionable information to support decision making. Similarly, KEMSA metrics results have been posted in the central warehouse and the CEO has presented metrics results to the Board.

In the operations staff meetings, KEMSA's M&E Champions now present metrics results, interpret the findings, and make recommendations for action to address performance challenges. They review the actions from past presentations and what was done to address the challenges. These presentations guide discussions and encourage cross-departmental collaboration, highlighting the need for greater integration across the various groups. Improvements in KPIs such as POD Turnaround are a result of actions that were determined during the M&E Champion presentations.

4. LESSONS LEARNED

1. Integrate performance measurement across all activities for cross-cutting impact

We supported KEMSA to develop and implement a performance measurement and reporting system to inform internal decisions as well as share results with stakeholders, donors and customers. Strengthened collection of KPIs within KEMSA and evaluation of these metrics to shape targeted interventions and process improvements will ultimately create a stronger national health system in Kenya.

KEMSA integrated performance management into their culture. KEMSA staff led presentations on metrics results in operations staff meetings and used metrics in decision making. This focus on performance measurement was integrated across our work streams and provided a transparent system for tracking progress and adjusting activities to maximize results. Direct benefits of improved use of data included cost effective distribution, improved on-time delivery, increased accountability, and enhanced customer service.

2. Data driven decisions support transition to direct funding

We helped KEMSA use data to advocate and convince stakeholders to shift funding directly to KEMSA. KEMSA is now able to claim distribution fees from the Ministry of Health and were reimbursed for every distribution cycle upon invoicing the Ministry of Health and on provision of PoDs.

KEMSA used its improved services to convince stakeholders and donors to either to shift funding directly to KEMSA or to use its procurement and distribution services. In 2012, KEMSA entered into a Fixed-Amount Reimbursement Agreement with USAID for procurement, warehousing and distribution of USAID financed health commodities.

3. Joint meetings between USAID, KEMSA and our project team could enable more effective decision making and promote country ownership

We think holding more joint meetings and working sessions with USAID, KEMSA and our project team could help reduce meeting redundancy, enable more effective decision-making, and further country ownership.

4. Prioritize human resource gaps and account for hiring process time within KEMSA

We helped KEMSA design their new Technical Planning Unit. The Technical Planning Unit needs to be staffed; staff capacity needs to be assessed against required capabilities; and

targeted mentoring is needed to address any gaps. We learned that requests for hiring staff through KEMSA needed to be submitted much earlier to account for the hiring process time within KEMSA. The Technical Planning Unit was not staffed by the time the project ended.

5. Staff skills must be aligned to their roles to absorb and institutionalize change

We found that some KEMSA staff may be better suited for other roles than their current positions. This limited the ability of KEMSA to absorb and operationalize all the updated and improved processes. There is a planned skills assessment by a USAID implementing partner. This was not completed during the project's period of performance.

6. A consensus-based approach supports sustained change

There must be buy-in from partners, counterparts and stakeholders at multiple levels to lay a foundation for sustained change. Often times establishing buy-in through a consensus-based approach can take more time compared to moving forward without reaching consensus. We used a consensus-based approach for selecting solutions to implement before progressing to implementation. Although it took time and effort, our consensus-based approach resulted in solutions that are more likely to last in the long-term.

7. Support will be needed to help KEMSA operationalize the KEMSA Act

Now that KEMSA is an Authority they must operationalize the framework defined in the Act. There are regulations or rules that will likely impact KEMSA's internal operations, policies and procedures. Others may impact external stakeholders such as county governments and health facilities. Each of these will require a different approach. These regulations will need to be developed immediately when the new Cabinet Secretary of health is appointed to effectively implement the Kenya Medical Supplies Authority Act of 2013.

8. A 3-Distribution Center scenario may improve responsiveness and customer satisfaction

It is likely that the new county structure will place new demands on KEMSA to move away from an exclusive centralized approach. We conducted a strategic network optimization analysis to assist KEMSA make decisions for the optimal distribution center locations. The analysis indicated that the 3 distribution center scenario with current delivery frequencies would be more optimal compared to the current centralized distribution model. Based on the analysis we recommended that three distribution centers located in Nairobi, Kisumu and Mombasa would provide the most optimal logistics network. In 2017, it would result in a potential 2.1% (KES 24 million) reduction in annual operating costs if compared to the centralized distribution strategy. The 3-Distribution Center scenario would improve the responsiveness of the logistics network from a current state of 4-hour delivery reach of 39% of facilities, to 84% of facilities. We recommended that the implementation be phased.

9. Process improvements and structure can increase transparency and accountability

We helped KEMSA's Transport Contract Working Group strengthen the tender and distribution contract process by building in mechanisms for transparency and accountability. The new transporter contracts are based on SLAs and include requirements linked to on-time delivery and on-time return of PODs. Implementation of the new transport carrier contracts led to strengthened distribution services that promote the efficient and secure delivery of commodities.

10. Flow racks can increase picking efficiency

We reviewed the efficiency of KEMSA's picking processes. Bulk and fine picks are performed simultaneously, slowing down both processes due to the variability of quantities ordered for any single product. Physically separating these pick types will result in higher speeds of task while improving accuracy. We recommended that the commodities be stored in zones for fast moving, medium and, slow moving product and that flow racks be implemented for fine picking. The flow racks technique is the industry's preferred way to improve speed and product flow. The flow rack area will allow for fast picking, consolidation, and packing of fine pick orders and lines.

11. Warehouse caging will strengthen security

We conducted a review of the warehouse layout and access control and found that there is no access control and the warehouse floor is easily accessible from any entry point. We recommended for KEMSA to install a perimeter fence (caging) enclosing the office, receiving, and dispatch areas. The aim with caging is to restrict warehouse access to unauthorized staff and maintain secured control of the inventory floor.

12. Relocation of racks will strengthen commodity flow

We identified that KEMSA's dispatch and receipt areas lack the space necessary to conduct proper loading and unloading of product. For this reason, and to create an expanded workable staging area in both locations, we recommended that a total of 8 racks (4 racks in each area) be moved out of the dispatch and receipt areas and relocated in other sections in the warehouse with space capacity to extend the current racks.

Adding an extra rack section to the end of existing racks in the identified areas will maintain the overall existing available storage space, while allowing for the extra staging room in both the receipt and dispatch areas. In the receipts area removing 4 racks will allow the creation of a proper receipts area where product can be offloaded and organized by commodity batches. This will also allow for offloading inside the warehouse and product can be protected from the elements. In the dispatch area, removing 4 racks will help create a staging area where loads can be organized by route.

5. PROGRAM PROGRESS - QUANTITATIVE IMPACT

As illustrated in Table I (Performance Indicators), the project supported KEMSA's realization of significant quantitative performance improvements in several key operational and enabling areas. Seventy-five percent (75% or 18/24) of project indicators outperformed their baseline during the second year of the project. Seventy-nine percent (79% or 19/24) met or exceeded their second year target during one or more project quarters. Of particular interest are the following indicators:

- **Audit recommendation resolution rate:** KEMSA exceeded the audit recommendation resolution rate target. During the January to March 2013 quarter, KEMSA achieved an **88%** resolution rate, a **16% improvement** over the baseline of 76%¹. Achievement in this area demonstrates that KEMSA improved governance in financial management. Increased resolution of audit findings demonstrates a

¹ Baseline represents the FY09/10 and FY10/11 periods

commitment to accountability and transparency in financial operations, an enabling area of the business.

- **Short-Dated Commodity Batches:** Beginning in July 2012, this indicator exceeded the year two target value (2.85%) for **three (3)** consecutive quarters and achieved a **33% improvement** for year two overall. By monitoring and acting upon commodity batches that have less than six months of shelf life, KEMSA is taking a proactive approach to reducing stock expiry and waste. Performance improvement in this area can ultimately enable more efficient use of donor and government funds. Performance of this indicator improved due to a number of implemented program recommendations, including routine monitoring of stock shelf life and donation of short-dated batches to avoid expiries. Actionable information related to this indicator is highlighted in the Executive Performance Dashboard provided to the CEO and KEMSA Directors.
- **Truck Availability:** We observed consistent improvement of truck availability and achievement of the year two target, with an average year two rate of **85%**, a **42% improvement** over the baseline. During the January to March 2012 quarter, KEMSA achieved an outstanding **98%** truck availability rate. In order to improve in this area, project staff worked closely with KEMSA staff to identify and correct root causes for low truck availability rates. The program helped tighten carrier contracts, introducing and enforcing stricter SLAs. This indicator was monitored closely in operations meetings and poor performance was communicated to carriers.
- **Dock to Stock:** The project helped KEMSA reduce the turnaround time from the point when a shipment is received by the warehouse ("dock") to the point when that shipment is shelved in the warehouse ("stock"). As one of the first areas to be targeted, the program saw KEMSA improve this metric and consistently achieve dock-to-stock turnaround times lower than the baseline for all quarters (**8/8**). The figure steadily dropped beginning in the January to March 2012 quarter, with an ultimate measurement of **2.04 days** during the January to March 2013 quarter. The year two performance (2.59 days) was a **59% improvement** over the baseline (6.32 days).
- **Order to Shipment Readiness Cycle Time for Special Distribution of Select Programs:** This indicator steadily improved beginning in January 2012 and throughout the second year of the project with the best performance in the final calendar quarter of 2012 at **2.86 days** (versus a baseline of 10.3 days). That same quarter saw KEMSA exceed the target of 5.0 days by **43%**. The year two value (5.52 days) was a **46% improvement** over the baseline. Like dock-to-stock cycle time, order-to-shipment-readiness cycle time is a key component in KEMSA's overall order turnaround time from order inception to the ultimate point of need. With improvements in both of these separate cycle times, KEMSA is contributing to improved customer service levels and facilities' service delivery times.
- **On-Time POD Returns:** In the October to December 2012 and January to March 2013 quarters, this indicator experienced impressive improvements, increasing from a 12% baseline to **73%** for hospitals and from a 13% baseline to **55%** for rural health facilities. Achievements in this area are linked to the project's support of KEMSA's retendering carrier contracts which include SLAs for returning PODs. This improvement demonstrates progress in governance and financial management

processing as carriers are paid only when PODs are provided. Activities in this area also contributed to improvements in truck availability, as previously discussed. KEMSA communicated with transporters about their performance and ultimately exceeded targets for hospitals during the last two quarters and across the second project year. Improvements in KPIs such as POD Turnaround are a result of actions that were determined during the M&E Champion Actionable Information Use presentations.

- **Delivery Transit Time for Hospitals:** KEMSA improved its average distribution times to over 250 hospitals over the life of the project, initially surpassing the two business day target for these shipments during the January to June 2012 semester. Supported by process improvement efforts and technical guidance from project staff and advisors, KEMSA then went on to achieve an average **1.48-day** transit time for hospital shipments across year two, cutting its baseline delivery transit time for hospitals by **43%** and outperforming the two-day target by **26%**.
- **Transporter On-Time Delivery for Hospitals:** In accordance with the above improvements in delivery transit time for hospitals, transporter on-time delivery for hospitals in year two **improved by 17%** (over the baseline of 71%). During project year two, hospital shipments were delivered in two days or less **83%** of the time. This indicator demonstrates KEMSA's improved ability to manage service providers as well as plan distribution schedules for improved customer service levels.

Table 1: Performance Indicators

N°	Indicator Name	Baseline	Baseline Date	USAID Year 1 (May 2011 - Sep 2011)	Oct 2011- Dec 2011	Jan 2012- Mar 2012	Apr 2012- Jun 2012	Jul 2012- Sep 2012	USAID Year 2 (Oct 2011- Sep 2012)	Oct 2012-Dec 2012	Jan 2013- Mar 2013	Project Year 2 (Jun 2012 - Mar 2013)	Year 2 Target Value (May 2013)
1	A legal and regulatory framework for the organization exist and there is evidence of it being followed	2	Aug 2011	2	2	2	2	2	2	2	3	3	3
2	Presence of governance body charters that support KEMSA's program objective(s)	2	Aug 2011	2	2	2	2	2	2	3	4	4	4
3	Audit recommendation resolution rate	76%	Systems Audits (FY09/10 and FY10/11 ⁶) and Fin Mgt Audits (FY09/10 and FY10/11)	Reported Mar 2013	Reported Mar 2013	Reported Mar 2013	Reported Mar 2013	Reported Mar 2013	Reported Mar 2013	Reported Mar 2013	88%	88%	85%
4	Bank reconciliation completion date variance	4	Feb to Apr 2012 (Sample)	Data collection began Feb 2012	Data collection began Feb 2012	6 (Feb-Mar 2012)	0	0	1.38	0	0	0	3

N°	Indicator Name	Baseline	Baseline Date	USAID Year 1 (May 2011 - Sep 2011)	Oct 2011- Dec 2011	Jan 2012- Mar 2012	Apr 2012- Jun 2012	Jul 2012- Sep 2012	USAID Year 2 (Oct 2011- Sep 2012)	Oct 2012- Dec 2012	Jan 2013- Mar 2013	Project Year 2 (Jun 2012 - Mar 2013)	Year 2 Target Value (May 2013)
5	Standing Imprest replenishment lead time	3.7	Mar-Apr 2012	Data collection began Mar 2012	Data collection began Mar 2012	4.4 days	3.0 days (Apr 2012)	9.5	6.4	5.0	1.0	2.5 days	3.0
6	Payment processing days	8.32	Mar-Apr 2012	Data collection began Mar 2012	Data collection began Mar 2012	Data collection began Mar 2012	7.41 days (Apr 2012)	7.12	7.90	6.46	8.37	7.95	10
7	Financial reporting timeliness variance	4.5	Jan-Feb 2012	Data collection began Jan 2012	Data collection began Jan 2012	3.0	2.3 days	1.0	2.1	1.0	1.7	1.6	4.0
8	Order fill rate for funded tracer commodities	66%	Jan-Apr 2011	33%	52%	62%	51%	59%	55%	93%	93%	71%	71%
9	Short-dated commodity batches	3.80%	Mar 12	Data not available	Data not available	3.80% (Mar 2012 only)	5.62% (May-Jun 2012 only)	2.78%	3.96%	1.64%	1.89%	2.53%	2.85% (30% decrease from year 1 baseline)
10	Order turnaround time for special program distribution cycles	6.76 days (ARVs only)	Dec 2011- Mar 2012	Data collection began Dec 2011	8.20 days (Dec 2011 only)	6.23 days (Feb-Mar 2012 only)	6.59 days	6.97 days	6.78 days	12.11 days	6.46 days	8.35 days	Special program distribution cycle: 6.00 days
11	Customer complaints response time	69%	Jun 12	Data not available	Data not available	Data not available	69%	44%	57%	68%	72%	64%	80%

N°	Indicator Name	Baseline	Baseline Date	USAID Year 1 (May 2011 - Sep 2011)	Oct 2011- Dec 2011	Jan 2012- Mar 2012	Apr 2012- Jun 2012	Jul 2012- Sep 2012	USAID Year 2 (Oct 2011- Sep 2012)	Oct 2012-Dec 2012	Jan 2013- Mar 2013	Project Year 2 (Jun 2012 - Mar 2013)	Year 2 Target Value (May 2013)
12	On time reporting	56%	Jan-Apr 2011	Data for this period not acquired	Data for this period not acquired	37%	47%	47%	44%	67%	43%	49%	65%
13	Months stock cover (tracer commodities only)	17.31 months	Feb-Apr 2012	Data collection began Feb 2012	Data collection began Feb 2012	20.08 months	9.17 months	16.53 months	15.26 months (Avg of 3 previous quarters)	41.19 months	18.83 months	21.43 months (Avg of Apr12- Mar13 quarters)	10.00 months
14	Dock to stock	6.32 days	Jan-Apr 2011	4.39 days	5.29 days	3.86 days	3.66 days	3.32 days	3.72 days	3.52	2.04 days	2.59 days	3.50 days
15	On-time delivery	Hospitals : 31% RHF: 38%	Jul-Dec 2011	N/A	Hospitals: 31% (Jul-Dec 2011) RHF: 38% (Jul-Dec 2011)	N/A	Hospitals: 39% (Jan-Jun 2012) RHF: Insufficient data available at this time	N/A	Hospitals: 50%; RHF: 17%	Hospitals: 50% (July -Nov 2012); RHF 38% (Aug12-Dec12)	Hospitals: 96% ; RHF:16%	Hospitals: 65%; RHF: 37%	Standard distribution cycle: Hospitals: 65% RHF: 50%
16	Truck availability	60%	Nov-Dec 2011	Data not available	60% (Nov-Dec 2011 only)	98%	81%	91%	81%	92%	79.4%	85%	85%

N°	Indicator Name	Baseline	Baseline Date	USAID Year 1 (May 2011 - Sep 2011)	Oct 2011- Dec 2011	Jan 2012- Mar 2012	Apr 2012- Jun 2012	Jul 2012- Sep 2012	USAID Year 2 (Oct 2011- Sep 2012)	Oct 2012- Dec 2012	Jan 2013- Mar 2013	Project Year 2 (Jun 2012 - Mar 2013)	Year 2 Target Value (May 2013)
17	Picking rate	3.91 picks per hour	Mar-Oct 2011	N/A	3.20 picks per hour (Jul-Dec 11)	N/A	1.96 picks per hour (Jan-Jun 12)	N/A	2.22 picks per hour (Avg of 3 quarters Oct 11-Jun 12; data not provided for Jul-Sep12)	4.60 picks per hour	5.79 picks per hour	4.12 picks per hour (Avg of Apr12- Mar13 quarters)	4.50 picks per hour
18	Order to shipment readiness cycle time for special distribution of selected programs	10.3 days	Feb-Apr 2011	11.0 days	13.1 days	7.8 days	8.0 days	5.7 calendar days	8.7 days (Avg of 4 qtrs)	2.9 calendar days	ERP issues impeded data export	5.5 days (Avg of Apr12- Dec12 quarters)	5.0 days
19	Pick to shipment readiness cycle time for standard distribution cycle	41 hours 49 minutes	Feb-Apr 2011	21 hours 04 minutes	27 hours 43 minutes	35 hours 17 minutes	24 hours 39 minutes	59 hours 02 minutes	37 hours 40 minutes (Avg of 4 qtrs)	49 hours 31 minutes	38 hours 15 minutes	43 hours 52 minutes (Avg of Apr12- Mar13 quarters)	19 hours 00 minutes

N°	Indicator Name	Baseline	Baseline Date	USAID Year 1 (May 2011 - Sep 2011)	Oct 2011- Dec 2011	Jan 2012- Mar 2012	Apr 2012- Jun 2012	Jul 2012- Sep 2012	USAID Year 2 (Oct 2011- Sep 2012)	Oct 2012- Dec 2012	Jan 2013- Mar 2013	Project Year 2 (Jun 2012 - Mar 2013)	Year 2 Target Value (May 2013)
20	Transporter on time delivery	Hospitals : 71% RHF: 75%	Jul-Dec 2011	N/A	Hospitals: 71% (Jul-Dec 2011 only) RHF: 75% (Jul-Dec 2011 only)	N/A	Hospitals: 78% (Jan-Jun 2012) RHF: 70% (Jan-Jun 2012)	No data acquired	Hospitals: 75% RHF: 66%	Hospitals: 79% RHF: 87%	Hospitals: 89% RHF: 83%	Hospitals: 83% RHF: 87%	Hospitals: 85% RHF: 85%
21	Delivery transit time	Hospitals : 2.61 days RHF: 4.86 days	Jul-Dec 2011	N/A	Hospitals: 2.61 days RHF: 4.86 days (Jul-Dec 2011 only)	N/A	Hospitals: 1.91 days (Jan-Jun 2012) RHF: 5.90 days (Jan-Jun 2012)	No data acquired	Hospitals: 2.18 days RHF: 5.90 days	Hospitals: 1.38 days RHF: 5.02 days	Hospitals: 1.39 days RHF: 6.13 days	Hospitals: 1.48 days RHF: 5.05 days	Hospitals: 2.00 days RHF: 4.00 days
22	On-time Proof-of-Delivery (POD) returns	Standard distribution cycles: Hospitals : 12% (Jan-Feb 12) RHF: 13% (Feb-Mar 12)	Jan-Feb 2012 (Hospitals); Feb-Mar 2012 (RHF)	N/A	Data collection began Jan 2012	N/A	Hospitals: 16% (Jan-Jun 2012) RHF: 15% (Feb-Jun 2012)	No data acquired	Hospitals: 16% (Jan-Jun 2012 only) RHF: 15% (Jan-Jun 2012 only)	Hospitals: 71% on-time RHF: 36% on-time	Hospitals: 73% (Jan-Mar) RHF: 55% (Jan only)	Hospitals: 66% RHF: 44%	Standard distribution cycles: Hospitals: 50% RHF: 50%

N°	Indicator Name	Baseline	Baseline Date	USAID Year 1 (May 2011 - Sep 2011)	Oct 2011- Dec 2011	Jan 2012- Mar 2012	Apr 2012- Jun 2012	Jul 2012- Sep 2012	USAID Year 2 (Oct 2011- Sep 2012)	Oct 2012-Dec 2012	Jan 2013- Mar 2013	Project Year 2 (Jun 2012 - Mar 2013)	Year 2 Target Value (May 2013)
23	Presence of an approved Performance Management Plan which is linked to strategic goals and is being used for program decision-making	1	Aug 11	1	1	1	1	1	1	1	1	5	5
24	Percentage of indicators aligned with KEMSA's strategic indicators	N/A	N/A	N/A	N/A	N/A	N/A	100%	100%	100%	100%	100%	100%

6. PROGRESS ON LINKS WITH OTHER USAID PROGRAMS

We collaborated with complementary USAID-funded programs such as the Capacity Kenya Project; the Health Commodities and Services Management (HCMS) program; the Kenya National Health Management Information System program (AfyaInfo); and the Leadership, Management and Sustainability (LMS)/Kenya program, to rationalize responses that enhance KEMSA's capacity to serve Kenya's healthcare facilities.

With the HCMS program we collaborated to help ensure that health facilities are better able to report their commodity consumption data to KEMSA. This collaboration facilitated central level improvements in the supply chain and leveraged facility-based interventions to strengthen reporting, planning and monitoring.

Together with the Supply Chain Management System (SCMS) program, we collaborated during the planning exercises with KEMSA to help improve access to medical commodities to client health facilities throughout the country. We collaborated with SCMS to ensure that consumption data of commodities distributed through SCMS was shared between SCMS and the LMU and that reporting of consumption data was appropriately done through the LMU. We leveraged work the USAID Deliver Forecasting Demand Report for 2020–2024 to form a picture of the expected future distribution requirements with KEMSA.

We collaborated with Kenya Pharma to ensure that stock sharing when required was done through a streamlined process by eliminating the quarantine requirement for commodities originating from Kenya Pharma. This process helped improve access to HIV/AIDS medicine and commodities.

We collaborated with AfyaInfo to share facility lists and the geocodes during the updates to the Master Facility List. This helped to ensure that the Master Facility List is consistent and available to the stakeholders in a harmonized format.

With LMS/Kenya program we supported four senior leadership staff from KEMSA to join the Senior Leadership Program that is run between LMS in collaboration with Strathmore Business School.

7. PROGRESS ON LINKS WITH GOK AGENCIES

We recognize that the most effective approach to improve and sustain supply chain capacity in Kenya is to build local capacity through direct collaboration and support to KEMSA. Prioritized activities and solutions were selected by KEMSA and implemented in partnership with our team. Through this process we ensured ownership and sustainability of all activities.

With the Ministry of Health we actively participated in policy and guidelines development together with KEMSA. Through this process we leveraged resources and contributed to a strengthened national supply chain system. Together with KEMSA, we collaborated across the Ministry's programs to leverage inputs and harmonize planned interventions to holistically strengthen Kenya's health system.

We collaborated with the National AIDS & STI Control Program to strengthen the response to HIV/AIDS through improved access to HIV/AIDS commodities and supplies. We

participated during commodity security meetings and during forecasting and quantification meetings.

Together with the Department of Reproductive Health, we helped strengthen planning processes and analysis for increased access to family planning and reproductive health products. We worked with the Division of Malaria to improve the availability of anti-malarials across the country by supporting KEMSA to track and share key metrics related to availability. We collaborated with the Division of Tuberculosis and Lung Diseases to strengthen the continuous supply of both first and second line anti-tuberculosis medicines through KEMSA.

8. SUSTAINABILTY AND EXIT STRATEGY

Country owned, country managed: We used several strategies to accelerate program ownership by KEMSA. First, our work plan was developed during a workshop led by KEMSA where project activities were identified and prioritized in collaboration with KEMSA. During the implementation process, prior to identifying any process to be standardized and changed, we held discussions with the KEMSA staff to agree on the “to be” process. Any change to any process was authorized by a senior KEMSA Manager. Changes were collaboratively implemented between program staff and KEMSA staff.

We supported KEMSA to review and update their Business and Strategic Plans and integrate performance measure in each of the documents. We strengthened the capacity of the Board and the senior management to provide oversight and coordination of KEMSA’s activities to help achieve its mandate. We provided mentorship, coaching and on-the-job training to improve the technical capacity of KEMSA staff in financial management, distribution, warehousing, customer service and planning.

Together with Afyainfo, we harmonized the Master Facility List of all public health facilities. This list is critical to inform distribution planning and route planning. Through this process we built KEMSA’s ownership, capabilities, and mutual accountability of activities implemented. We helped KEMSA to strengthen their systems and practices to promote transparency and accountability that led to a shift of direct funding to KEMSA.

Building local sustainability and partnerships: We continuously built the capacity of KEMSA staff through mentorship, coaching and on-the-job training to equip KEMSA’s staff with necessary skills and tools. During each short term technical assistance visit we ensured that there was a training component integrated in the scope of work. This allowed for transfer of skills to KEMSA counterparts to sustain continuous development of a strong, efficient, effective and accountable KESMA after the life of the program.

We built on and strengthened the existing national supply chain system and capacities to allow KEMSA to manage their challenges effectively. We worked with KEMSA to improve transparency and accountability to facilitate a path of unifying parallel commodity supply chains into one national system to increase efficiencies and sustainability of the national health system.

9. CONSTRAINTS AND CRITICAL ISSUES

1. **Procurement processes:** Our scope does not include strengthening procurement processes. Inventory management and tracking systems rely heavily on timely procurement orders. During planning sessions, it has been determined that some inventory issues (e.g., excess, expiry, shortages, etc.) were partially a result of long procurement lead times or potential delays in inbound receipts of procurement orders. Without strengthening procurement processes, KEMSA's operations will not be able to reach their optimal level of efficiency.
2. **Human resource gaps:** Our project noted that some KEMSA staff may be better suited for other roles than their current positions. This limited the ability of KEMSA to absorb and operationalize the updated and improved processes. There is a planned skills assessment by a USAID implementing partner. This was not completed during the project's period of performance.
3. **ERP limitations:** The current ERP lacks in its structure due to poorly defined parameters during the development stage and unstructured implementation. Several modules such as the WMS module rely heavily on manual interventions and lack in Good Warehousing Practice functionality. This functionality, which is unavailable in the current ERP system, is required to improve the quality and speed of warehouse operations, as well as enhancing the quality of monitoring and evaluation. The ERP developer did not demonstrate the capacity or expertise to develop some of the missing functionalities especially in the WMS module, and the WMS component itself may not have the proper foundation to build upon. Inadequacies of the WMS module and delays in addressing all the identified ERP gaps by the ERP developer had and will continue to impact subsequent operational improvements at KEMSA.

10. ANNEXES

ANNEX I: Technical Deliverables

We provided regular program reports on our progress and financial status. In addition to these reports we completed technical reports and supported KEMSA to strengthen internal guidance documents. The table below provides a list of technical project deliverables. We did not include regular programmatic reports in the table.

Area	Title	Type
Legal	Review of the Draft KEMSA Act	Technical Report
Financial Management	Financial Management Policy Manual	KEMSA - internal
Financial Management	Finance Standard Operating Procedures	KEMSA - internal
Financial Management	SSD Credit Policy	KEMSA - internal
Internal Audit	Internal Audit Policy Manual	KEMSA - internal
Internal Audit	Internal Audit Standard Operating Procedures	KEMSA - internal
Internal Audit	Audit Charter	KEMSA - internal
Governance	Human Resource Charter	KEMSA - internal
Governance	Ethics Charter	KEMSA - internal
Governance	Risk Management Charter	KEMSA - internal
Supply Chain	Distribution Standard Operating Procedures	KEMSA - internal
Supply Chain	Quality Assurance Standard Operating Procedures	KEMSA - internal
Supply Chain	Customer Service Standard Operating Procedures	KEMSA - internal
Supply Chain	Planning Standard Operating Procedures	KEMSA - internal
Supply Chain	Warehouse Analysis Report	Technical Report
Supply Chain	Strategic Network Analysis Report	Technical Report
Supply Chain	Inventory Analysis Report	Technical Report
Supply Chain	Customer Service Analysis Report	Technical Report
Supply Chain	ERP Gap Analysis Report	Technical Report
Supply Chain	Planning Stock Status Tool	KEMSA - internal
Supply Chain	Executive Scorecard	KEMSA - internal
Supply Chain	Complaints Management Tool	KEMSA - internal
Supply Chain	Customer Service Field Visits Tool	KEMSA - internal
Performance Management	Performance Management Plan	KEMSA - internal

ANNEX II: Summary of Contract Deliverables

No.	Deliverable	Status	Future Considerations
Task 1: Review KEMSA's legal status (KEMSA Act) and make recommendations to strengthen its operational mandate			
1	Policy papers drafted and policy developed	<ul style="list-style-type: none"> Reviewed Draft Act Helped update the draft Act to align with the constitution Strengthened draft Act compliance with international standards Held stakeholders meetings to capture feedback Developed and implemented advocacy plans to garner support and consensus for passage of the draft Act Prepared KEMSA for submission of the draft Act to the Parliament Health Committee 	<ul style="list-style-type: none"> Support is required to help KEMSA operationalize the new Bill Updated procedures need to be developed, implemented and tracked to ensure compliance with the new institution and authority
2	KEMSA legal framework developed and fully aligned to its mandate	<ul style="list-style-type: none"> KEMSA law was given the presidential assent and published in January 2013 KEMSA transitioned to the new institution and authority on April 15, 2013 Completed land valuation for KEMSA property 	
Task 2: Strengthen KEMSA's governance architecture and practice, especially to improve financial and procurement transparency and accountability			
3	Corporate governance structure defined	<ul style="list-style-type: none"> Board and Committee charters updated and developed in line with the KEMSA Act, Kenya Constitution (2010) and Public Financial Management Act (2012) Developed the Board Advocacy Plan, Governance Roadmap and the Board Work Plan Strengthened the Board's skills and knowledge in corporate governance, financial management, risk management and change management Developed KEMSA's Risk Management Framework and implementation plan 	<ul style="list-style-type: none"> Support needed to help KEMSA operationalize the new Bill into its corporate governance structure Updated financial procedures need to be developed,

No.	Deliverable	Status	Future Considerations
4	Defined operating procedures that ensures strong program management capabilities, effective and efficient delivery of contract requirements and achievement of performance indicators and targets	<ul style="list-style-type: none"> • Developed and helped implement new financial management standard operating procedures (SOPs), policies and procedures • Developed KEMSA’s internal audit SOPs and trained staff • Created a process for harmonization of facilities drawing rights with reconciliations • Revised and developed new SOPs, policies and guidance in areas including financial management, customer service and warehousing • Trained KEMSA staff on new SOPs through on-the-job training, formal training and mentoring • Institutionalized key performance indicators (KPIs) and targets for ongoing tracking and increased accountability 	<p>implemented and tracked to ensure compliance with the new institution/authority</p> <ul style="list-style-type: none"> • Support needed to strengthen procurement processes to help KEMSA’s operations reach their optimal level of efficiency
5	Advocacy plan in place for increased budget allocation and quarterly financial disbursement to KEMSA by Treasury and MOMs/ MOPHs	<ul style="list-style-type: none"> • Developed and implemented a media campaign as part of KEMSA’s larger Public Relations Plan to sensitize the need for KEMSA and additional funding • Integrated “financial reporting timeliness” into KEMSA’s KPIs for regular performance tracking to increase accountability, transparency and advocate for increased budget allocation and disbursements 	
6	Audit and Monitoring & Evaluation Departments established to strengthen the management control function	<ul style="list-style-type: none"> • Reviewed and updated KEMSA’s internal audit charter • Developed KEMSA’s internal audit SOPs, manual and tools and trained staff • Designed a structure for KEMSA’s anticipated Monitoring & Evaluation Unit 	
7	Debtors management system defined to allow for timely payment to suppliers by KEMSA based on agreed	<ul style="list-style-type: none"> • Developed finance SOP for management of Proof of Delivery (POD) to enhance cash collection from the Ministry • New Transporter contract developed which includes POD turnaround Service Level Agreement (SLA) to enforce compliance with regards to POD returns. • Developed finance SOPs manual that details the processes for efficient 	

No.	Deliverable	Status	Future Considerations
	procurement contract	<ul style="list-style-type: none"> processing of customer receipt and suppliers' payments Integrated "payment processing days" into KEMSA's KPIs for regular performance tracking 	
8	Performance MOUs developed between KEMSA and the ministries, key partners and health facilities established and monitored on a quarterly basis	<ul style="list-style-type: none"> A performance contract exists between KEMSA and the ministries and is monitored and reported against Developed KEMSA's Performance Management Plan (PMP) and KPIs to support existing and planned MOUs signed by KEMSA with various stakeholders 	
9	Critical documents and information e.g. tenders and awarded contracts posted on the KEMSA website and meeting the national and international standards for dissemination to promote transparency and good procurement practices	<ul style="list-style-type: none"> Critical documents and information related to procurements are posted on the KEMSA website 	
10	Quality Assurance (QA) Program that ensures commodities meet contractual and product specifications developed and operationalized	<ul style="list-style-type: none"> Developed QA SOPs detailing product receipt, sampling and inspection procedures, including non-conformance management 	
11	Standard operating	<ul style="list-style-type: none"> Developed Distribution SOPs detailing cycle and weekly planning 	

No.	Deliverable	Status	Future Considerations
	procedure that ensures on-time delivery of drugs and medical supplies to all levels of facilities developed	<ul style="list-style-type: none"> • Developed Customer Service SOPs to enhance on time order requests from facilities • Developed master routes for more efficient transporter delivery • Developed KPI for on time delivery, planning accuracy and warehouse picking and turnaround time • Developed new transporter contracts with SLAs for on time delivery by 3rd party transporters 	
Task 3: Strengthen KEMSA's inventory management and tracking systems to ensure full transparency and accountability for all stock it receives and distributes throughout the country			
12	Relevant tracking and reporting tools are developed	<ul style="list-style-type: none"> • Redesigned new KEMSA Customer Service Field Visit Tools and developed a Customer Complaints Tracking Tool • Designed a new Customer Service Orders Tracking Tool and inventory planning tools to track receipt of facility orders and processing progress • Developed Customer Service SOPs and trained staff on the SOPs • Developed and monitored metrics and KPIs for Customer Service and Inventory Management • Designed new Customer Service Business Process Maps • Defined a Goods Return to-be process (Reverse Logistics) for integration into the ERP 	<ul style="list-style-type: none"> • Provide supply chain assistance to guide ERP functionality enhancements with local developer
13	Logistics Management Unit (LMU) operationalized for optimal functionality of the logistics data management system through timely and	<ul style="list-style-type: none"> • Developed LMU integration plan; offices renovated and furnished • Conducted consensus workshop and process working sessions to define process to capture facility consumption data including minimum requirements for the dataset across all commodity groups • Supported new LMIS development, testing and implementation • Integrated "on time reporting" into KEMSA's KPIs for regular performance 	

No.	Deliverable	Status	Future Considerations
	<p>accurate input of consumption data and preparation of appropriate logistics reports for use in forecasting, quantification and other logistics purposes as required by programs and other key stakeholders who put their commodities through the KEMSA procurement and supply chain system</p>	<p>tracking</p> <ul style="list-style-type: none"> Conducted Customer Service Analysis; identified improvement areas Designed new Customer Service Department structure, roles and responsibilities, job descriptions and SOPs Trained Customer Service staff on leading practices, communication skills, e-mail etiquette, complaints handling and change management 	
14	<p>Enterprise Resource Planning (ERP) system strengthened and inventory management system developed to ensure timely availability of data for decision making and visibility of and ability to track all commodities in the supply chain pipeline</p>	<ul style="list-style-type: none"> Conducted ERP/WMS gap analysis, ICT diagnostic analysis and inventory analysis Developed Excel-based tools such as an Inventory Status Tool for planning purposes to track stock cover Defined planning reports and conducted an ABC analysis to identify slow moving commodities Developed and implemented a supply chain issue resolution framework between ERP implementer and KEMSA to guide resolution of the identified end user issues 	
<p>Task 4: Strengthen KEMSA's warehousing and distribution systems to address its own identified needs, including infrastructure improvements, skills development of core staff, and operational budget support</p>			
15	<p>A planning department established to support</p>	<ul style="list-style-type: none"> Designed the Planning Unit structure; submitted to CEO for Board approval Developed planning processes, roles and responsibilities 	<ul style="list-style-type: none"> The Planning Unit needs to be staffed;

No.	Deliverable	Status	Future Considerations
	the management function	<ul style="list-style-type: none"> Established weekly planning forums 	<p>staff capacity needs to be assessed against required capabilities and provide targeted mentoring to address any gaps</p>
16	A functional and responsive supplementary services division (SSD) developed and sustained to supplement funding deficits and promote sustainability	<ul style="list-style-type: none"> Developed SOPs to strengthen overall system including SSD Completed infrastructural improvements to strengthen overall system including SSD Defined billing structure for SSD transport costs Supported development of a SSD ERP module 	<ul style="list-style-type: none"> Help KEMSA to validate, monitor and update the procedures and guidance for the Technical Planning Unit once it is staffed and operational
17	Distribution plans that are responsive to the needs of health facilities and priority programs developed	<ul style="list-style-type: none"> Developed distribution SOPs to address weekly and cycle planning based on customer orders; this includes publishing of distribution schedules to all stakeholders Initiated meetings between KEMSA and stakeholders via planning forum on a monthly basis Conducted on-the-job training, mentoring and formal training on distribution SOPs Developed a Push to Pull Transition Implementation Plan Institutionalized key performance indicators and metrics to track performance to plan for on time delivery 	<ul style="list-style-type: none"> Support KEMSA to implement a phased approach to an optimized network design based on the three distribution center scenario that was shown to be the more cost efficient option
18	A physical warehousing network structure that supports a 'pull' supply chain system defined and operationalized	<ul style="list-style-type: none"> Conducted a Distribution Analysis to identify improvement areas Developed and implemented a Push to Pull Transition Plan Conducted a Strategic Network Optimization Analysis; this included development and modeling of future state scenarios and defining a future state logistics network and implementation roadmap Completed warehouse infrastructure improvements such as lighting, security camera and fire systems 	

No.	Deliverable	Status	Future Considerations
19	Freight forwarding, distribution and warehousing services that promote efficient and secure delivery of commodities institutionalized	<ul style="list-style-type: none"> • Conducted a regional depot assessment for priority depots • Developed new Transporter contracts based on SLAs and leading practices; this includes integrating On time delivery and PODs into SLAs to increase transporter accountability • KEMSA can now track 3rd party trucks via GPS • Developed Master Routes for optimized delivery • KPI's and metrics developed and implemented to track distribution and warehouse performance e.g. in transit time, transporter on time delivery, POD turnaround etc. • Restructured distribution functions, role & responsibilities for improved efficiency • Implemented invoice/delivery note improvements • Developed and implemented a Distribution Tracker Tool developed to assist the Distribution Department to plan, dispatch and report metrics 	
20	Warehouse system that meets internationally acceptable standards created	<ul style="list-style-type: none"> • Conducted an ERP/WMS Gap Analysis • Completed infrastructural improvements to strengthen the warehouse such as improved lighting, security, and fire system • Improved skills and knowledge on good warehousing practices through on-the-job training, mentoring and formal training • Conducted training on leadership and management skills, change management, e-mail etiquette, and continuous improvement methodologies • Defined the warehouse caging layout • Updated the warehouse SOPs updated and trained staff • Restructured distribution functions roles & responsibilities for improved efficiency 	

No.	Deliverable	Status	Future Considerations
21	Facility list mapping developed and updating procedure defined	<ul style="list-style-type: none"> • Facility list mapping developed • Held meetings with Ministry to discuss collaborative process for updating of facility mapping • Defined the updating procedure in KEMSA Customer service and distribution SOPs 	
Task 5: Support for KEMSA to develop, implement and monitor a performance management plan			
22	A competitive and transparent system to procure, warehouse and distribute required commodities to health facilities in a timely manner developed and sustained	<ul style="list-style-type: none"> • Institutionalized data collection, analysis, reporting, and information use within KEMSA to improve the system to procure, warehouse and distribute commodities • Conducted regular performance reviews and assisted KEMSA to take corrective programmatic measures to improve organizational performance 	<ul style="list-style-type: none"> • The M&E Unit needs to be staffed; staff capacity needs to be assessed against required capabilities and provide targeted mentoring to address any gaps
23	Performance Monitoring Plan developed and shared with policy makers and key stakeholders semi-annually	<ul style="list-style-type: none"> • Developed KEMSA's Performance Monitoring Plan • Developed and implemented tools for KPI data collection and management • Created a proposed structure for an M&E Unit within KEMSA • Established KEMSA's M&E Champion Program • Improved KEMSA's performance management knowledge, skills and culture of improvement through on-the-job training, mentoring and formal training • Updated KEMSA's Business Plan to integrate components for effective management of organizational performance, including data use and dissemination 	<ul style="list-style-type: none"> • Help KEMSA to validate, monitor and update the procedures and guidance for the M&E Unit once it is staffed and operational • Establish a data warehouse and institute an increasing automated approach to reporting to reduce errors and increase accountability