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USAID eSCMIS

PROJECT YEAR I. FY2020

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ACRONYMS

AIDSFree Project	Strengthening High Impact Interventions for an AIDS-free Generation Project
CCB	Change Control Board
CE	Central Edition
CHAZ	Churches Health Association of Zambia
eLMIS	Electronic Logistics Management Information System
eSCMIS	Electronic Supply Chain Management Information System
FE	Facility Edition
FY	Fiscal Year
GRZ	Government of the Republic of Zambia
IMPACT	Information Mobilized for Performance Analysis and Continuous Transformation
IR	Intermediate Result
JSH	John Snow Health Zambia Limited
JSI	John Snow, Inc.
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation, and Learning
MOH	Ministry of Health
MOU	Memorandum of Understanding
MSL	Medical Stores Limited
OJT	On the job training
PPP	Public Private Partnership
SO	Strategic Objective
TCO	Total Cost of Ownership
UNZA	University of Zambia
USAID	United States Agency for International Development
ZHAP	Zenysis Health Analytics Platform



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THE USAID eSCMIS PROJECT

The five-year USAID eSCMIS project builds on the success of the electronic logistics management information system (eLMIS) in Zambia, which was formally implemented by John Snow, Inc. (JSI) with support from USAID, in partnership with the Ministry of Health (MOH), Zambia Medicines and Medical Supplies Agency (ZAMMSA), and other key supply chain partners. John Snow Health Zambia Limited (JSH) is mandated to support the transition of the eLMIS into the next-generation logistics information system through the USAID eSCMIS project. JSH is the prime contractor on the USAID eSCMIS project, with JSI and Churches Health Association of Zambia (CHAZ) as subcontractors.

The USAID eSCMIS project is supporting the Government of the Republic of Zambia (GRZ) and the MOH to improve supply chain efficiency through digitalization and ensuring sufficient quantity and quality of essential medications, laboratory commodities, and malaria, HIV, and family planning products are available at health facilities in Zambia. This objective is aimed at fostering a supply chain that is safe, secure, reliable, and sustainable. Project Objectives include:

Implement a next generation eLMIS

Enable GRZ to make data driven supply chain decisions independently

Transfer eLMIS leadership to ensure GRZ can take ownership of its data and reporting systems.

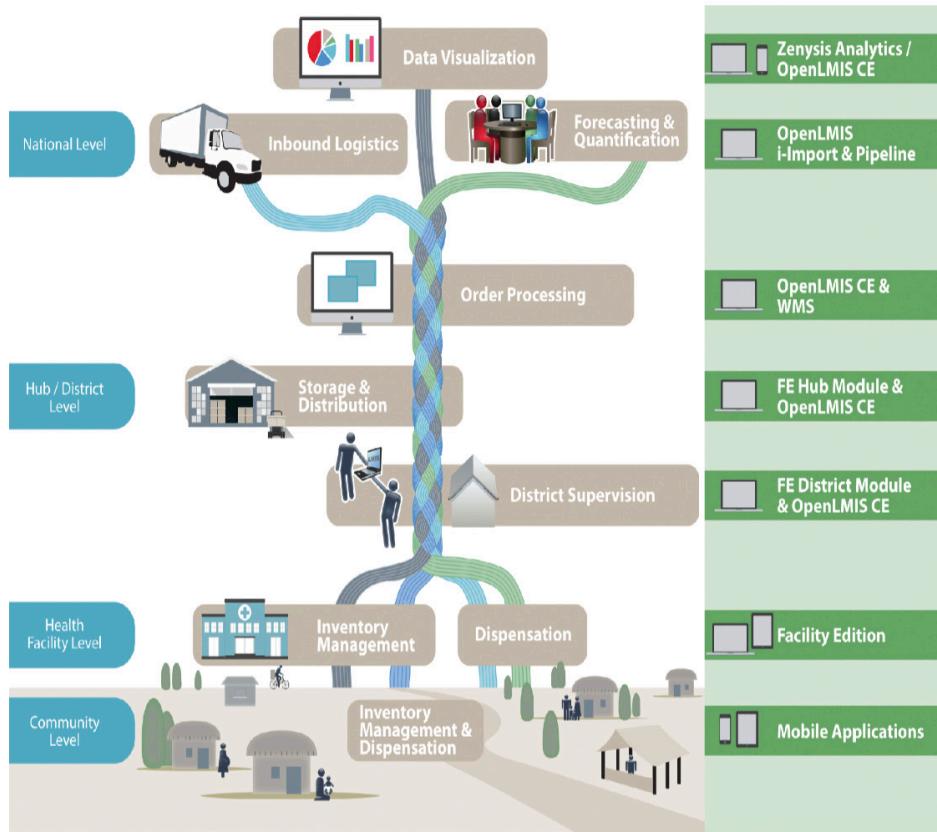
The project envisions a health logistics system that is fully automated from central to facility level and is well-suited to Zambia's challenges. The primary objective of the USAID eSCMIS project is to ensure that the eLMIS is not only cutting-edge, but also improves supply chain visibility to support enhanced decision-making, increases accountability, and is locally owned.

The public health policy environment in Zambia is supportive of the eLMIS. The National Health Strategic Plan (2017–2021), the eHealth Strategy (2017–2021), and the Health Sector Supply Chain Strategy (2018–2021) all contain this commitment. As these are updated in 2022, the project will continue to advocate for inclusion of electronic technologies.

BACKGROUND

Figure 1 illustrates eSCMIS's vision, with the health system levels in blue on the left, the functions of the supply chain in grey in the middle, and the supporting components of the eLMIS in the green column on the right.

Figure 1. End-to-End Supply Chain eLMIS Business Process





USAID ESCMIS PROJECT FY2020

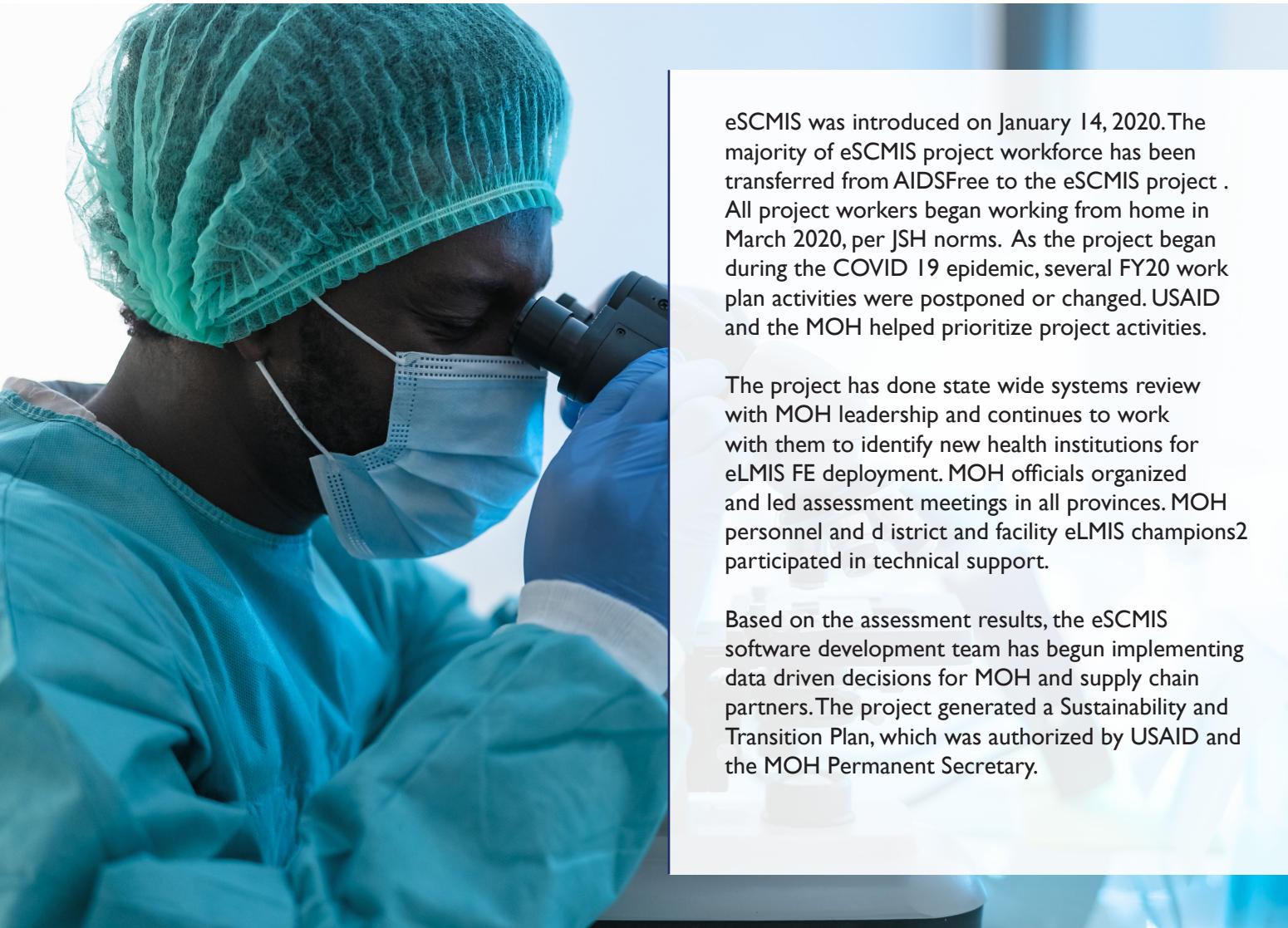
The five-year Electronic Supply Chain Management Information System (eSCMIS) project, funded by the United States Agency for International Development (USAID) and the U.S. President's Emergency Plan for AIDS Relief, aims to turn the eLMIS into a next-generation system by collaborating with the Ministry of Health, Zambia Medicines and Medical Supplies Agency (ZAMMSA), the Churches Health Association of Zambia (CHAZ), and other supply chain partners. The government of Zambia has adopted eLMIS as its national logistics management information system.

In Fiscal year 2020, the eSCMIS project started by moving eLMIS management, deployment and operations from the former USAID- Funded AIDSFree project. As most eSCMIS activities require travel and in-person meetings, the COVID-19 outbreak in March delayed many project activities.



Despite COVID-19 constraints, the project has altered its work plan and achieved many of its goals. This includes preparing for rapid deployment once travel restrictions are lifted, conducting a countrywide system assessment to gather requirements for system enhancements, migrating 151 eLMIS Facility Edition (FE) sites from version 3.8 to 4.1.0, and implementing key strategies in the eLMIS Sustainability and Transition Plan.

KEY ACCOMPLISHMENTS



eSCMIS was introduced on January 14, 2020. The majority of eSCMIS project workforce has been transferred from AIDSFree to the eSCMIS project. All project workers began working from home in March 2020, per JSH norms. As the project began during the COVID 19 epidemic, several FY20 work plan activities were postponed or changed. USAID and the MOH helped prioritize project activities.

The project has done state wide systems review with MOH leadership and continues to work with them to identify new health institutions for eLMIS FE deployment. MOH officials organized and led assessment meetings in all provinces. MOH personnel and district and facility eLMIS champions² participated in technical support.

Based on the assessment results, the eSCMIS software development team has begun implementing data driven decisions for MOH and supply chain partners. The project generated a Sustainability and Transition Plan, which was authorized by USAID and the MOH Permanent Secretary.

eSCMIS's first work plan included deliverables that contribute to fulfilling the project's objectives, such as implementing the next-generation eLMIS and allowing the government to take full leadership of the system. Despite pandemic hurdles, the project changed its methodology to achieve many goals and build the groundwork for others. Below is an indepth look at the FY20 project activities.

INTERMEDIATE RESULT I: IMPLEMENTATION OF THE NEXT GENERATION eLMIS



SYSTEM ASSESSMENT

To envision a next-generation eLMIS, the project conducted a needs assessment of eLMIS system requirements in all ten provinces. This activity was led by the MOH, with the project providing remote support. The project was able to collect 645 new system requirements, using key functional domains and business processes as guidelines. After thorough review, and removal of any duplicates and enhancements already in existence, the list was consolidated to **243 system requirements**.

ENHANCEMENTS

Based on the consolidated list of enhancements carried forward from AIDSFree and the system assessment conducted in FY20, the project developed and deployed enhancements to the eSCMIS software suite.

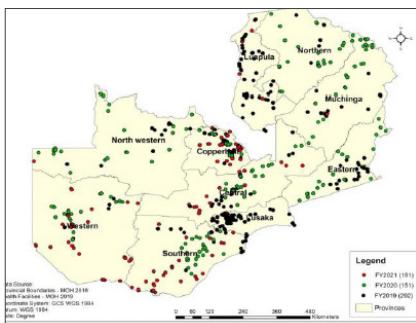
636

target facilities

for FY21 deployment (from the life of project target of 1,200).

eLMIS FE DEPLOYMENT AND UPGRADES

COVID-19 constraints prevented the project from deploying eLMIS FE to new sites in FY20. Instead, eSCMIS opted to lay the foundation for rapid deployment once travel bans are lifted and to enhance the MOH's capacity to deploy and sustain the system. The project has identified 636 target facilities for FY21 deployment (from the life of project target of 1,200). The project has engaged 40 MOH champions to upgrade facilities from eLMIS FE version 3.8 to 4.1.0. Despite delays from COVID-19 travel restrictions, as of September 30, 2020, 151 of 332 facilities targeted for FY20 (46 percent) have been upgraded to the latest version of the system.



The project has engaged

40

MOH champions to upgrade facilities

151 of 332

facilities targeted for FY20 (46 percent) have been upgraded to the latest version of the system.

TECHNICAL SUPPORT AND SUPERVISION

The project has continued to provide technical support and supervision to the 624 eLMIS facilities through the eLMIS Call Centre and remote support tools, including an online toll-free call centre equipped with an internet-based PABX (3CX), an open-source CRM system, and remote desktop tools such as AnyDesk and TeamViewer.

MONITORING, EVALUATION, AND LEARNING

Monitoring and evaluation (M&E) virtual visits were conducted in 9 provinces (90 percent) and 47 districts (85 percent) of the targeted 55. This included 235 health facilities of the FY 20 target of 320 (73 percent).

INTERMEDIATE RESULT 2: ENABLE GRZ TO INDEPENDENTLY MAKE DATA-DRIVEN SUPPLY CHAIN DECISIONS



PLANNED INTERVENTIONS:

To increase supply chain managers' ability to make data-driven decisions independently, the project planned to:

- Ensure the harmonization of different health system information systems.
- Implement a data quality validation tool through ZHAP and develop dashboards to summarize data quality indicators.
- Transform data into consumable information at all levels of the health system.
- Through the introduction of IMPACT teams, ensure that information is consumed and analysed at all levels of the health system, decisions are made based on these analyses, and decisions are turned into action.

The project continues work initiated in the AIDSFree project to establish the audit trail user interface in eLMIS CE to aid in the monitoring of user changes, which is in line with developing a data quality validation tool.



The project is working on analytical tools to be added to eLMIS CE based on data from the national systems assessment, allowing users to extract and see dashboards and reports developed in Insights/Metabase.

To improve system sustainability, the project and MSL devised a strategy to shift project workers to ZAMMSA centres across the country in the first quarter of FY21, allowing for skill transfer and the transition of project operations to MOH institutions. In addition, the MOH's Directorate of Clinical Care and Diagnostic Services has approved the development of IMPACT teams at the national, provincial, and district levels. The supply chain teams will collaborate with the project to deliver long-term interventions and develop a data-driven culture. To ensure that key stakeholder roles and duties are clearly defined, the project has begun working with MOH province senior management on a strategy for deploying IMPACT teams.

INTERMEDIATE RESULT 3: ENABLE GRZ TO TAKE LEADERSHIP OF ELMIS



The MOH and USAID gave their approval to the project's Sustainability and Transition Plan. The strategy will be presented to the Procurement Supply Chain Management Technical Working Group (TWG) at a date determined by the MOH, after which it will be distributed to all stakeholders. The delay in announcing the date is due to the necessity to prioritize COVID-19-related country activities, according to MOH.

The project is working hand-in-hand with MOH staff to execute software modifications and implementation through the Change Control Board, the project increased capacity in the MOH (CCB).

The project attended and participated in a training of trainers (TOT) (i.e., "Pharmacy Lecturer's Supply Chain Management TOT) organized by the Pharmaceutical Society of Zambia and UNZA and supported by the GHSC-PSM to ensure that eLMIS is fully incorporated into the curricula of pharmacy schools throughout the country; conducted virtual eLMIS orientation for 70 undergraduate and postgraduate students at the School of Biomedicine; If COVID-19 travel limitations remain in place, the modules are expected to be used for remote staff training in health facilities and tertiary education institutions.



The project has held discussions to find alternative energy sources and options for providing electricity in off-grid health institutions with the goal of discovering and launching public-private partnerships (PPPs) for the government to increase financial sustainability. Internet broadband access via TV white space (TVWS), alternative electricity via solar power, environmental compliance, and e-waste disposal are all potential PPP initiatives in the discussion or draft stages.

To plan for phase I (test implementation), initial negotiations with potential technological and implementing partners were undertaken, and a draft list of additional partners was developed.

The project cooperated with two USAID-funded programs (USAID SAFE and DISCOVER-Health) to train their personnel in operating the eLMIS and transfer this knowledge to facility-based MOH staff to promote collaboration with other donors and supporters to simplify the transition of system ownership. The project is also working with supply chain partners to restructure national logistics systems so that manual and electronic systems can be established to meet current supply chain requirements.

SUCCESS STORY

I THE BUDDY SYSTEM FOR A SUSTAINABLE eLMIS



Moono Chilinda, a biomedical technologist from the Chama district in Muchinga province, Zambia.

Moono Chilinda is a biomedical technologist from the Chama district in Muchinga province, Zambia. Moono owes his start in the Electronic Logistics Management Information System (eLMIS) to mentorship from his Ministry of Health (MOH) Supervisors. This apprenticeship practice has helped many MOH staff gain knowledge of the system over the years. The USAID Electronic Supply Chain MIS (eSCMIS) project is building on this practice and has dubbed it the 'Buddy System'.

Following the launch of the eLMIS Facility Edition (FE) in 2016, Moono began receiving eLMIS mentoring from his supervisors. Today, Moono is part of a growing group of eLMIS champions able to deploy and migrate the system, orient MOH staff to eLMIS, provide them with technical support, and, if the

newcomers are lucky, mentor them to become eLMIS super users. The buddy system is a form of skills transferal that the USAID eSCMIS project uses to build capacity among MOH staff across Zambia. Most recently, the buddy system has enabled the project to expand and sustain its work through the many restrictions accompanying COVID-19.

eSCMIS is a USAID-funded project implemented by John Snow Health Zambia Limited (JSH). In collaboration with the Ministry of Health (MOH), Medical Stores Limited (MSL), the Churches Association of Zambia (CHAZ), and other supply chain partners, eSCMIS is working to transform eLMIS into a sustainable, next-generation system that is wholly owned, implemented, and maintained by the government of Zambia. The eventual objective is a more efficient and sustainable supply chain, a more effective health system, and better health outcomes.

Through the buddy system, the project's eLMIS champions provide less experienced MOH staff with technical support and identify new health facilities for future eLMIS deployment. "I've always had a keen interest in information technology," reflects Moono. "I fully embraced eLMIS because of how efficient and timely it has made my work. With training from my supervisors, I began building my skills. I never imagined I'd become one of the first points of contact in both Eastern and Muchinga provinces on-eLMIS related queries, or that one day I'd be leading migrations or conducting virtual trainings to my MOH colleagues through a pandemic."

In its first year of operation, eSCMIS trained 40 eLMIS champions to support and mentor other MOH staff and to deploy new versions of eLMIS and become eLMIS super users. With support from the champions, 151 health facilities have migrated from eLMIS FE version 3.8 to 4.1.0. "We envision having at least two eLMIS super users in each district by the end of the project life," reports Daison Machinyise, eSCMIS's Systems Implementation and Support Manager. "COVID-19 really threw us in the deep end, but... we've managed to maintain reporting rates during the onset of COVID-19 till present, even with eSCMIS project staff

not being able to travel to provinces for technical support. We can clearly see the Ministry's commitment to eLMIS."

The project design includes transferring full leadership of eLMIS to the government of Zambia by 2023, with project staff providing technical support for an additional two years. Building the capacity of MOH staff to implement and maintain eLMIS, including through the buddy system, is a key strategy for achieving this objective.

This document is made possible by the support of the American people through the United States Agency for International Development (USAID) and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). The contents of this presentation are the sole responsibility of John Snow Health Zambia Limited and do not necessarily reflect the views of USAID, PEPFAR, or the United States Government.

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