

USAID | DELIVER PROJECT

Final Country Report

Ethiopia





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USAID | DELIVER PROJECT, Task Order 4

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USAID | DELIVER PROJECT, Task Order 7

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Abstract

This report highlights work carried out by the USAID | DELIVER PROJECT in Ethiopia from 2006–2016. The project provided technical assistance to Ethiopia's health system by strengthening logistics system performance, increasing national commitment to commodity security, and building sustainable capacity.

Cover photo: Andualem Tessema, the storekeeper at Bussa Health Center, stands ready to assist clients with their family planning or other health commodity needs. Photo Credit: USAID | DELIVER PROJECT 2012.

USAID | DELIVER PROJECT

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Project Overview and Context

Project Overview

The USAID | DELIVER PROJECT, in partnership with ministries of health and other organizations, improves health outcomes in developing countries by increasing the availability of health supplies. For more than 30 years, USAID has been a world leader in providing health commodities to field programs—a critical component of health program success.

Since 2006, the USAID | DELIVER PROJECT and its immediate predecessor, DELIVER, have supported the Federal Ministry of Health (FMOH) in Ethiopia to strengthen its health commodity supply chain and improve the availability of essential health commodities for its citizens. During this time, the country has moved from having a weak, ad hoc, program-based supply chain to an organized system with all program commodities managed in one integrated supply chain.

The project's end-to-end support in Ethiopia has focused on strategic planning, system design, information systems development and implementation, forecasting and supply planning, stores improvement, transportation systems, use of data for decision-making, capacity building, supportive supervision to health facilities, commodity security, and monitoring of commodity availability at health facilities.

The Ethiopian public sector healthcare supply chain is now organized with written standard operating procedures (SOPs), program supply chains are integrated, and a professional supply chain agency – the Pharmaceuticals Fund and Supply Agency (PFSA) - with trained staff and significant infrastructure - exists. Furthermore, PFSA and FMOH partners have unprecedented access to real time logistics data — from across the entire PFSA network for all

commodities including program-specific dashboards for contraceptives, HIV, malaria, and MCH, items—allowing for improved use of data for decision making.

Over this period of time, availability of most essential medicines has increased significantly. A 2014 survey (Shewarega 2015) showed availability of select essential medicines at around 90 percent; compared to about 70 percent as reported in a similar survey in 2003 (FMOH 2003). Availability of Depot medroxyprogesterone acetate (DMPA), by far the most popular contraceptive, has increased from 75 percent in 2006 (DELIVER 2006) to 98 percent in 2014. These increases in medicine availability have in turn driven improvements in indicators like contraceptive use and health outcomes such as child mortality.

This has all happened over a time when the number of health facilities served has grown exponentially, as have the number and quantities of medicines and supplies being managed. In 2003, there were 519 health facilities and 2,819 health posts; by 2013 there were over 3,400 health facilities and over 16,000 health posts. PFSA distributed about U.S.\$100 million worth of commodities in 2008-2009; this had increased to over U.S.\$ 600 million in 2013-2014.



Investment in Commodity Support and Technical Assistance

Prior to 2003, the health commodity supply chain in Ethiopia had numerous inefficiencies including vertical distribution, fragmented health logistics information systems, and limited logistics data visibility. This caused disruptions in the routine supply of essential medicines and undermined the government's ability to achieve its health goals.

To remedy these challenges, the USAID | DELIVER PROJECT supported the GOE in addressing critical commodity security gaps both through commodity procurement and technical assistance in support of critical SC functions and spanning key health program areas such as reproductive health, malaria, and maternal and child health.

Project technical assistance centered on:

- ❑ Comprehensive support for Reproductive Health Commodity Security (RHCS) including forecasting, supply planning, pipeline monitoring, improving the policy environment, and resource mobilization for contraceptive procurement.
- ❑ Design and implementation of an integrated logistics system including development of Standard Operating Procedures (SOPs) and various forms, supportive supervision, training, and mentoring.
- ❑ Development and implementation of a comprehensive automated system for warehouse and health facility commodity management and logistics management information systems to increase visibility of up-to-date logistics data.
- ❑ Stores improvement through provision of shelving and equipment.



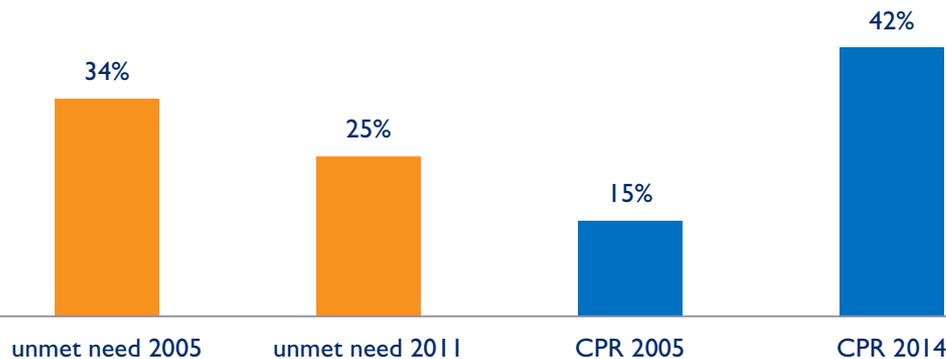
Family Planning

The project helped the Ethiopian Government push ahead to ensure universal access to family planning and reduce unmet need.

The Government of Ethiopia (GOE) has shown deep commitment to ensuring universal access to family planning and has made impressive gains in its goal. As a result, more women and men in Ethiopia are choosing to use a modern contraceptive method and plan their families. Contraceptive use (MWRA) has increased from 15 percent in 2005 (DHS 2005) to 42 percent in 2014 (DHS 2014) - nearly two percentage points a year. Meanwhile, unmet need declined from 34 percent in 2005 (DHS 2005) to 25 percent in 2011 (DHS 2011).

A flexible and robust supply chain and an enabling environment for contraceptive security have been instrumental in ensuring availability of a quality mix of contraceptives to meet the growing demand.

Yet, while contraceptive availability is generally high, challenges remain: availability of some of the less popular methods is lower, and there are significant regional variations in contraceptive use. In addition, contraceptive availability at health posts where the majority of users obtain their supplies is also lower.



Based on married women of reproductive age

USAID | DELIVER
PROJECT SHIPMENTS
FY2006-2016
provided 13.2 million couple-years of protection (CYP)

3.3 Million

Unintended pregnancies prevented

114,408

Infant deaths prevented

11,376

Maternal deaths prevented

65,126

Under 5 child deaths prevented due to improved birth spacing

Malaria

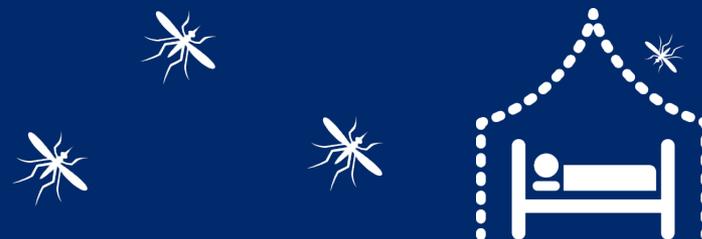
As malaria products join the integrated system, the project helped ensure smooth inventory tracking, management, and information for decisionmakers

Seasonality, localized and hard to predict epidemics, short shelf life medicines, and poor stock visibility combine to undermine malaria commodity security in Ethiopia.

Since 2013, the project has worked to increase visibility of malaria commodities, monitor availability of commodities, and ensure a smooth transition of malaria commodities into the Integrated Pharmaceutical Logistics System (IPLS).

A malaria program dashboard provides visibility into real time stock data from across the PFSA network – a huge improvement from the old vertical system where there was no stock visibility. A malaria commodity technical working group was created to manage the integration process, and the project has pioneered the application of the Look-ahead Seasonality Index (LSI) for resupply quantity estimation. The LSI introduces seasonality to resupply to reduce both stockouts and overstocks. And the project is providing supportive supervision to over 500 health facilities every quarter for malaria commodity management including monitoring medicine availability and sharing data with decision-makers.

Integration of malaria commodities into the IPLS began in 2015, moving from a vertical supply chain managed by the different levels of the Health Ministry to PFSA management with the promise of improved availability. As of July 2016, with integration still ongoing, there has already been improvement in availability of Coartem, the front line malaria treatment, with health center stockouts of all presentations declining from 25 percent to 16 percent.



Epidemiological Profile

First-line treatment:	Artemether lumefantrine for <i>P.falciparum</i> , Chloroquine for <i>P.vivax</i>
Rainy season:	Varies widely with geography in Ethiopia Main season: June to Sept Short season: April to May
Pop living in high-transmission areas:	60%
Prevalence:	1.3% (2011)
Cases per year:	5,000,000 (est.)

Maternal and Child Health (MCH) Commodities



The USAID | DELIVER PROJECT's success in strengthening contraceptive security in Ethiopia led to USAID requesting similar support for maternal and child health commodity security

Ethiopia's Federal Ministry of Health (FMOH) recently set targets for significantly improving maternal and child mortality rates. To achieve the targets, they critically needed to improve commodity availability and access. Thus, in 2015, the FMOH and USAID requested additional project support for MCH commodity security.

Building on the project's strategies for increasing contraceptive security in

Ethiopia, the project began helping Ethiopia with efforts to increase funding for MCH commodity procurement, strengthen MCH forecasting and pipeline monitoring, improve the MCH policy environment, and increase the availability of key medicines.

Data visibility was a key project strategy. The project developed commodity dashboards for priority maternal and child health commodities that display live stock

PFSA warehouses. Items included Oxytocin, Magnesium Sulfate Injection and Oral Rehydration Salts. Using data from the project's MOH supportive supervision visits to health facilities, the project quickly identified significant stockouts of key items primarily related to lack of funding for procurement. Such data visibility not only improves decision-making but also shines a light on policy barriers to commodity security.





Technical Assistance

Technical Assistance Overview

Delivering high-quality health care to patients and clients requires health facilities and dispensaries to have a full supply of medicines and other health products. This necessitates a well-functioning supply chain.

Using best practices and innovative approaches, the project develops and implements robust logistics solutions, fosters supportive commodity security environments, procures and ships health commodities, and partners with local organizations to build sustainable capacity.

In Ethiopia, these interventions include:

Strengthen Logistics System Performance

- Design and Implementation of the Integrated Pharmaceutical Logistics System (IPLS)
- Strengthening management information systems
- Pharmaceutical stores improvement



Increase National Commitment to Commodity Security

- Forecasting, supply planning and pipeline monitoring
- Reproductive Health Commodity Security (RHCS)
- Supportive supervision to health facilities



Build Sustainable Capacity

- Strengthening last mile availability
- Building capacity through pre-service training
- Capacity building at PFSA





Strengthen Logistics System Performance

To improve health outcomes in the countries where we work, the USAID | DELIVER PROJECT increases the availability of health products by strengthening supply chains and creating global commitment. These efforts are guided by the project's supply chain integration framework.

In the public health setting, an integrated supply chain links everyone involved in managing essential health commodities into one cohesive supply chain management organization, ultimately helping clients access quality health care services and supplies.

Design & Implementation of Integrated Pharmaceutical Logistics System

Every step of the way, the project helped Ethiopia transform from using vertical systems for managing health commodities for each MOH program to using one integrated system with products managed by PFSA, optimizing systems to improve supply chain performance.

When the project commenced activities in 2006, the Ethiopian public sector healthcare supply chain was weak and fragmented into numerous vertical systems. To address these weaknesses and with the ultimate goal of universal access to essential health commodities, the Government of Ethiopia aimed to build a strong integrated supply chain with direct delivery of all program commodities to health facilities.

The project led the technical support for this effort. A first step was to provide technical assistance for the development of the Pharmaceutical Logistics Master Plan (PLMP), finalized in 2006. The plan envisaged the creation of an autonomous government agency to manage the entire supply chain;

this led to the creation of the Pharmaceuticals Fund and Supply Agency (PFSA) in 2007. The plan also led to the design of the IPLS which began deployment in 2009.

Later in 2010, the project led the design of a system extension to include health posts as part of IPLS – Health Post Resupply - and an associated training curriculum.

The project provided extensive support for system implementation including training, updating of SOPs, supportive supervision for facilities, and monitoring of system performance.

In addition, the IPLS has integrated vertical program commodities; for example family



planning commodities were added in 2011, and malaria integration began in 2014.

Investment in PFSA and the IPLS have yielded positive results. In a comprehensive survey carried out in 2014, the availability of select essential medicines was reported to be at approximately 90 percent – compared to about 70 percent as reported in a similar survey in 2003. (Shewarega 2015, FMOH 2003). Availability of DMPA, by far the most popular family planning method, increased from 75 percent in 2006 to 97 percent in 2014.

Increasing Supply Chain Data Visibility

By developing and deploying information systems, the project increased the visibility, quality, and timeliness of data which can be used to make decisions

The basic function of supply chain management is to match supply and demand, something impossible to achieve without quality real time data. Thus, the project’s work in developing and deploying information systems aimed to increase the visibility, quality and timeliness of data.

Starting in 2009, the project developed and began implementing an automated inventory and logistics management information system in health facilities. The Health Commodity Management Information System (HCMIS) has been implemented in 558 of the largest hospitals and health facilities in the country allowing for increased visibility of data at facilities, improved inventory management, reduced waste and ultimately improved supply chain performance. Analysis shows that these facilities manage about 74 percent of the total value of medicines distributed in the public sector.

In 2010, at the request of the PFSA the project developed a new warehouse management version of HCMIS and began implementing it in each of the then 11 PFSA hubs (currently there are 17). Hubs were operating using paper systems only, a major constraint since they were serving in some cases populations of more than 10 million people. The new HCMIS Warehouse version included many new features required by PFSA business

process including location tracking and generating purchase orders and other paper forms.

In 2012, seeing the success of HCMIS at PFSA hubs, PFSA requested that it be implemented in their central warehouses for all items. This meant extensive upgrading of the system to include pricing, and linkages to financial management and procurement systems. Currently, HCMIS is part of PFSA daily business process for procurement, warehouse management, commodity pricing, forecasting, and LMIS.

Given the quantity of data within PFSA – it manages millions of transactions—the need for customizable commodity dashboards to present real time data for decision making was vital. In 2014, the project developed a datamart and dashboards to present critical data for decision-

making. Thanks to the live commodity dashboards developed and deployed by the project across the PFSA network of warehouses (central and hub levels) PFSA and FMOH partners have unprecedented access to real time data. This data from across the entire PFSA network for all commodities including program specific dashboards for contraceptives, HIV, malaria and MCH, items, allows for improved decision making.

The project continues to innovate around the HCMIS platform. Recent work has included development of a HCMIS Dashboard mobile application to allow users to access data on smartphones, and piloting the use of GS-I scanable bar codes at central and hub PFSA to improve data quality and speed up transaction times.

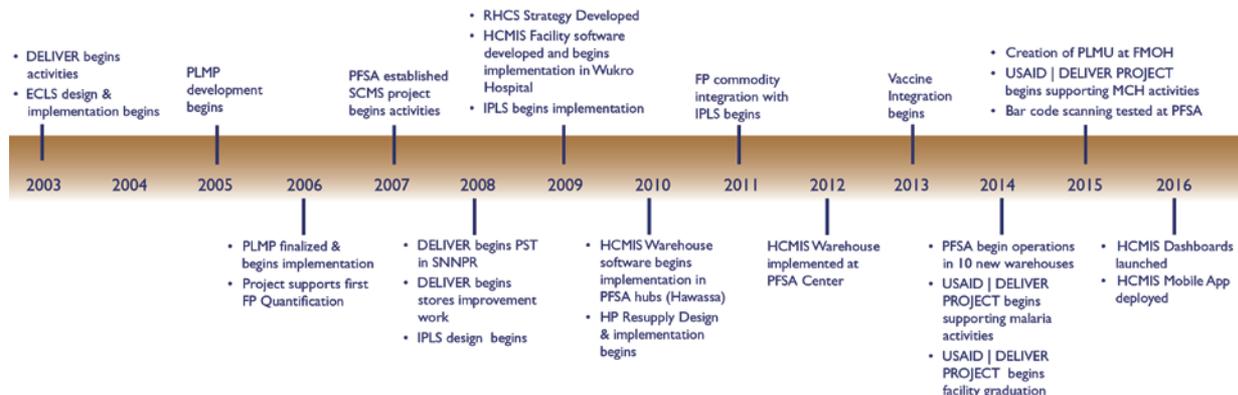


Figure 1: HCMIS Dashboards present live commodity data for decision making, here is part of FP dashboard



Pharmaceutical Stores Improvement

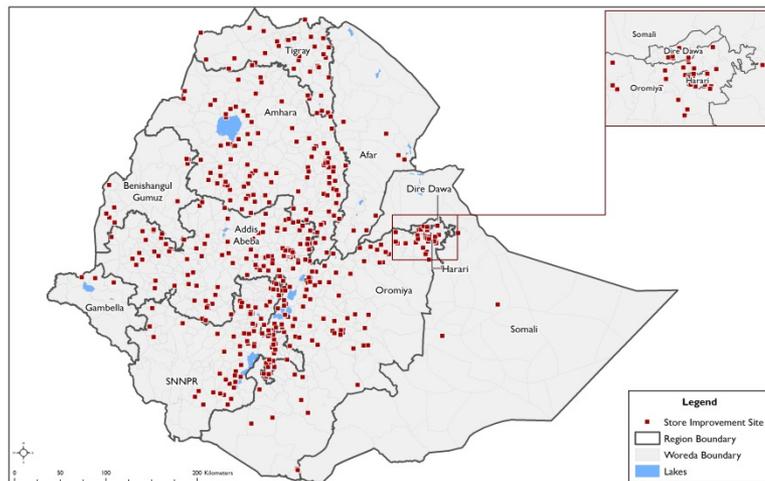
From shelving and equipment to training, advocacy and mentorship, the project improved storage rooms throughout Ethiopia, enabling the country to manage products better, reduce stockouts, and help storekeepers perform their work more efficiently.

A proper storeroom with trained staff is a requirement for implementation of the paper system; and successful paper system implementation itself a pre-requisite for automation.

With this in mind, in 2008, the project began supporting pharmaceutical stores improvement. The project provided shelving, various stores equipment including pallets, hand trucks, and ladders, and support for stores reorganization.

These were not standalone inputs, rather they were part of a holistic program of project support that included training, implementation of paper systems and supportive supervision, and in some cases automation.

By mid-2016, the project had improved 551 health facility stores in every single region of the country (see map),



To enhance sustainability of this work the project has:

- trained 41 government counterparts from PFSA and Regional Health Bureaus on how to do stores assessments, and supervise installation of shelving;
- shared specifications for quality shelving and other items with health facilities; and
- advocated for the importance of providing adequate storerooms in newly constructed facilities as well as support for facilities doing improvements using their own funds.



Photo Credit: Audrée Montpetit. A pharmacist at the Tulu Bolo hospital store, Oromia Region, after shelving installation.



Increase National Commitment to Commodity Security (CS)

Commodity security exists when every person is able to choose, obtain, and use quality contraceptives and other reproductive health products whenever they need them. Strong supply chains alone cannot ensure availability of, and access to, these commodities.

To help countries create an enabling environment for reproductive health commodity security, the USAID | DELIVER PROJECT, in collaboration with its counterparts, undertakes a variety of policy and advocacy activities at the global, regional, and country levels.

Reproductive Health Commodity Security (RHCS)

By connecting key personnel in working groups, advocacy, financial monitoring, and more, the project helped strengthen Ethiopia's position as a leader that prioritizes commodity security for reproductive health

Ethiopia is a global success story for family planning. From 2005 to 2014 contraceptive use (MWRA) has increased from 15 percent in 2005 (DHS 2005) to 42 percent in 2014 (DHS 2014) - nearly two percentage points a year - while unmet need declined from 34 percent in 2005 (DHS 2005) to 25 percent in 2011 (DHS 2011). A strong commitment to family planning and Reproductive Health Commodity Security (RHCS) has underpinned this success.

The project has been instrumental in these efforts providing RHCS technical leadership with a focus on policy, multisectoral coordination, and financing strategies that have helped strengthen Ethiopia's CS status.

In 2009, the project carried out an RHCS assessment which led to the development of a national RHCS strategy in the same year. This strategy identified a number of priorities including funding, policies, and coordination to ensure sustainable commodity security.

Following this, the project supported a similar process in each of Ethiopia's 11 regions, with the final region Somali due to develop a strategy before closeout. Each region developed an implementation plan and in many cases the priorities identified were incorporated into the overall regional annual health plans.

The project also supported efforts to improve the country's CS status through advocacy for and monitoring of contraceptive financing, capacity building at all levels of the MOH in logistics and commodity management, forecasting and quantification, strengthening multisectoral collaboration and partnership, and creating a supportive policy environment.

The success of the project's work in contraceptive security led USAID to provide funding beginning in 2015 for similar support for maternal and child health commodities, including forecasting, pipeline monitoring, and facility level monitoring and reporting.



Photo Credit: Audrée Montpetit. Family planning counselling session at Bussa Health Center, Oromia region. Improved availability has underpinned significant increases in CPR in Ethiopia.

The project has provided significant RHCS technical leadership including:

- National RHCS assessment and strategy in 2009
- Assessment and strategy development in Ethiopia's 11 regions
- CS advocacy and capacity building

Forecasting, Supply Planning and Pipeline Monitoring

Providing the evidence base to mobilize and secure adequate financing to procure and maintain uninterrupted supplies to meet client needs.

Family planning and contraceptive security have been priorities from the beginning of the project’s work in Ethiopia. Increased availability of contraceptives at service delivery points has underpinned the increases in contraceptive use and reductions in unmet need over the past 15 years. For instance, use of DMPA (by far the most popular method in Ethiopia) increased from 10 percent in 2005 to 31 percent in 2014, while stockouts decreased from 25 percent in 2006 to just over 2 percent in 2015 (Figure 2)

Forecasting, supply planning and pipeline monitoring are key functions contributing to improved availability. The project has supported contraceptive forecasting, supply planning and pipeline monitoring since 2006. Interventions include annual forecasts with monthly reviews and updates of supply plans and national pipeline and capacity building at both PFSA and the FMOH to support these activities. The project has also supported submission of quarterly pipeline data to the Procurement Planning and

Monitoring Report (PPMR) to enhance global visibility.

Since 2006, there has not been a single stockout of any of the four major contraceptives (DMPA, male condoms, implants, oral pills) at the national level and availability at health facilities of these methods has consistently been around 95 percent or better (Table 1).

Improved planning has not been the only factor in this. The project has also facilitated product transfers to address pipeline imbalances at all levels. For example, at the national level, DKT and IFHP have transferred products like IUDs and implants; while at facility level, project field staff have supported inter-facility transfers to address short term stockouts.

Figure 2: Contraceptive Prevalence (MWRA) for injectable contraceptives and percent of facilities stocked out of DMPA, 2005 - 2015

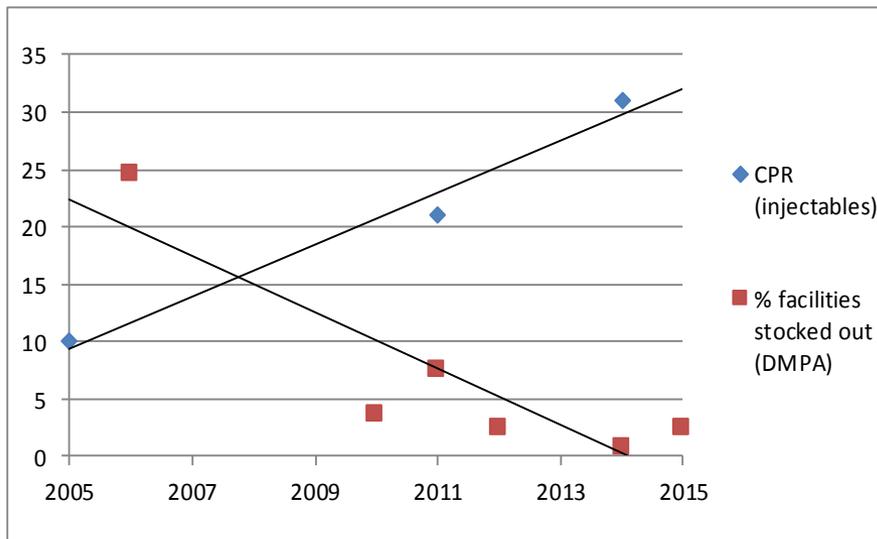


Table 1: Stockout data (time of visit) from health facility supportive supervision, 2011 – 2015

Method	FY2011	FY2012	FY2013	FY2014	FY2015
DMPA	5.2	5.2	1.5	0.3	2.5
Combined Oral Contraceptive pills	6.0	4.7	2.0	6.4	1.9
Implants	ND	6.1	1.6	0.3	2.1
Male condoms	8.7	4.1	1.5	0.5	1.4



Build Sustainable Capacity

An essential component of a robust health supply chain is the staff that implements logistics tasks. To run effectively, public health supply chains require motivated, trained and skilled staff with competency in the various essential logistics functions and who are also empowered to make decisions that positively impact health supplies and supply chains.

The goal of the USAID | DELIVER PROJECT's capacity-building activities is to strengthen human resources (HR) in public health supply chain systems in the developing world. A focus on developing a superior workforce allows organizations and individual staff to accomplish their customer service goals, ensuring higher performance among public health personnel and, therefore, increased availability of contraceptives and other essential health products.

Supportive Supervision to MOH Health Facilities

With project support, training, and materials development, the MOH helped health facility staff develop skills through on-the-job mentorship and support in supply chain management. Across Ethiopia, clients using these facilities benefit from related performance improvements.

Supportive supervision at health facilities has been fundamental to supply chain strengthening and IPLS implementation in Ethiopia. Supportive supervision gives decision-makers a finger on the pulse of supply chain performance and commodity availability at health facilities.

The project worked closely with both PFSA and the Supply Chain Management Systems (SCMS) project to develop this program and linked it with formal classroom IPLS training.

Under the leadership of PFSA, project staff developed a standardized checklist for supportive supervision. The checklist included process indicators of supply chain performance, such as usage of bin cards, use of and quality of data in standard reports, as well as availability of key tracer commodities (HIV, family planning, malaria, and maternal and child health). Visits included face time with both facility staff and woreda personnel to discuss findings.

The project typically provided supportive supervision to about 600 health facilities (hospitals and health centers) and approximately 100 health posts every quarter. The SCMS project covered a comparable number of facilities and PFSA supported a more limited number.

Thanks in major part to this intervention, IPLS performance has improved in health facilities. The percentage of facilities with updated bin cards for DMPA has significantly increased from 34 percent in 2006 to 66 percent in 2014 and for hormonal implants from 32 percent to 55 percent (DELIVER 2006, Shewarega 2014). Supportive supervision data from 2016 shows that 97 percent of facilities were submitting a standard Report and Request Form (RRF) to order program commodities.



In 2014, the project began a strategy of graduating facilities from support – this enhanced system sustainability and allowed limited project resources to move to newer facilities not receiving support. By mid-2016, the project had graduated 387 health facilities.



Photo Credit: Audrée Montpetit. Project field advisor mentors pharmacy store manager on HCMIS during a supportive supervision visit

Building Capacity Through Pre-Service Training

Project advocacy and technical expertise contributed to Ethiopia's now-strengthened pre-service training of pharmacy students in supply chain logistics, a vital and cost effective strategy for system sustainability

Since Ethiopia began implementing the Integrated Pharmaceutical Logistics System (IPLS) in 2009, more than 13,602 healthcare workers have been trained on IPLS. However, staff attrition and expanding service delivery has created a continuous demand for training.

To address this, the project began looking at Pre Service Training (PST) as a complementary approach to In Service Training (IST). The project began working with the four health science colleges in SNNPR in 2009 and in 2011 began to expand the training to other regions.

While it was clear that training students in their places of study is a lot cheaper than IST (no per diems or transport costs), and there was plenty of anecdotal evidence that training was effective, the project decided to generate evidence to help institutionalize PST as a complementary training approach to IST as part of IPLS implementation.

A study was carried out to compare the cost effectiveness of PST with IST (Berhe 2014). Within one year of being trained, 81 percent of PST trainees (pharmacists or pharmacy technicians) had been recruited to work on the IPLS system, 87 percent rated the training received relevant or highly relevant, and the comparative training costs for PST were one-sixth of those for IST. Besides those quantifiable benefits, there are others, for example PST does not disrupt services at facilities since it does not take pharmacy staff from their posts for periods of a week or more.

Based on this published research, the project intensified its PST efforts. In the 2015 and 2016 FYs the project trained 751 pharmacy students in 6 institutions. The project also continued its efforts to advocate for inclusion of IPLS training as part of the standard curriculum for pharmacy technicians.



"I feel more prepared to join the public sector as a pharmacist. The training particularly increased my skill in product management at the store and use of the different recording and reporting forms."

Feven Zeratsion from Mekelle University – a PST Trainee in 2014.

Strengthening Last Mile Availability

USAID | DELIVER PROJECT assisted with re-supply planning and training for the Health Extension Worker (HEW) program. Serving rural communities, HEWs are a major factor in recent health outcome improvements

Health posts provide valuable primary healthcare including family planning services, malaria diagnosis and treatment, and maternal and child health services at the community level. Each one of these health posts must be stocked with medicines – a huge supply chain challenge. Health posts are often located in the most difficult to reach areas of the country and are the most impacted by commodity shortages.

Just over 10 years ago, there were 3,000 health posts in Ethiopia. Currently there are more than 16,000. Given the challenges in supporting these health posts, the project developed a multipronged strategy to support health post resupply.

1. Train health center supervisory staff to provide mentoring and on-the-job (OJT) training on logistics to HEWs
2. Advocate and provide technical support for inclusion of logistics training for both newly hired and current HEWs – neither of which was being provided
3. Advocate and provide technical support for health post resupply including limited monitoring of health posts
 - Nearly 4,000 health center staff, who support more than 10,000 health posts have been trained to provide OJT to HEWs. The project has also trained partners like Save The Children to do the same mentoring as part of their support to health posts.
 - The project developed a logistics curriculum for newly hired HEWs. The training provides both background on supply chain management and practical skills on keeping bin cards and filling the monthly report and request form. By mid 2016, 1,815 newly hired HEWs in 15 Health Science Colleges had been trained
 - The project has provided valuable information to stakeholders on the status of commodity management at health posts including availability. Every quarter data from about 100 health posts is compiled and communicated to stakeholders ensuring visibility of health post challenges.



Photo Credit: Adey Abebe/L10K

Successes of the three training areas

1. Nearly 4,000 health center staff supporting more than 10,000 health posts have been trained
2. 1,815 newly hired HEWs in 15 Health Science Colleges had been trained using logistics curriculum
3. Quarterly data from about 100 health posts is shared with stakeholders ensuring visibility of health post challenges.



The Way Forward

The Way Forward

Supply Chain Continuous Improvement

Notwithstanding the major successes of the Ethiopian healthcare supply chain in supporting expansion of service delivery and improvements in health outcomes, significant challenges remain. In the past, the biggest challenge was medicine availability and while there continue to be sporadic stockouts for essential medicines, for the most part availability is high (90 percent or greater). The bigger challenge now relates to supply chain efficiency including overstocking and wastage. PFSA processes and systems need to grow and develop to match the growth in infrastructure, personnel, and commodity throughputs.

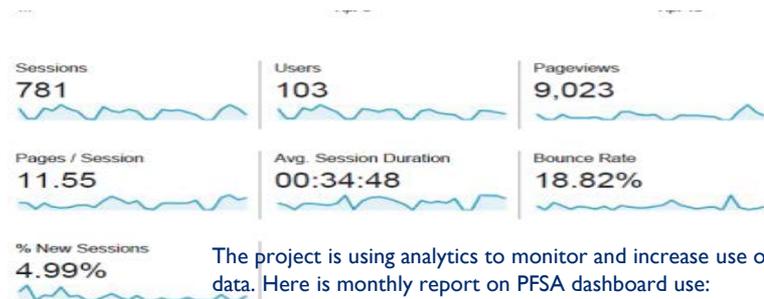
- Partners need to continue to engage with PFSA to bring in outside expertise, particularly specialists in supply chain management, for example warehouse management, information systems, fleet management etc.
- Business process at PFSA need to be streamlined and strengthened
- There needs to be greater focus on system performance moving beyond availability as the measure of performance to efficiency indicators like inventory turnover, and stocking levels
- Real time data visibility for the health facility level needs to be strengthened

Culture of Using Data for Decision Making

Thanks to the live commodity dashboards developed and deployed by the project across the PFSA network of warehouses (central and hub levels) PFSA have unprecedented access to data for decision making. However, live data can actually make decision-making harder since there is so much more information to process. In addition, the culture for decision making at PFSA needs to be strengthened.

There needs to be a three pronged approach on data visibility

1. Continue increasing data visibility – more people have more access to more data
2. Work to improve data quality, including timeliness of data.
3. Strengthening the capacity of users to use data (which includes making data easier to interpret and use). This includes training of PFSA staff, working together on advanced data analytics, monitoring dashboard usage and continuing improvements.



The project is using analytics to monitor and increase use of data. Here is monthly report on PFSA dashboard use:

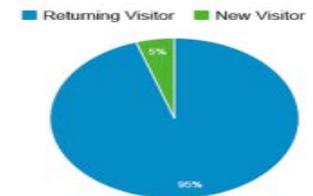
The Last Mile

The last mile of the supply chain in Ethiopia – the more than 16,000 health posts, many located in rural, hard to reach areas – continues to be the major challenge. Many of the gains in healthcare outcomes in Ethiopia, past and future, are dependent on service delivery at community level. Stockouts at health post level are higher than other levels, most HEWs have to collect their supplies, often on foot, and few have received logistics training, even for the simple tasks like maintaining a bin card.

Efforts to institutionalize logistics training for new HEWs are finally bearing fruit, and needs to continue.

Partners who support service delivery need to do more to support logistics management at health posts; while supply chain partners also need to continue to advocate for attention to the last mile.

Piloting mobile technology for logistics reporting shows some promise to increase data visibility; however to scale this will be a huge undertaking.





Additional Resources

Acronyms

CPR	contraceptive prevalence rate	PFSA	Pharmaceuticals Fund and Supply Agency
CYP	couple-years of protections	PLMP	Pharmaceutical Logistics Master Plan
CS	commodity security	PMA	Performance Monitoring and Accountability
DMPA	Depot Medroxyprogesterone Acetate	PST	Pre service training
FMOH	Ethiopian Federal Ministry of Health	PPMR	Procurement Planning and Monitoring Report
GOE	government of Ethiopia	RHCS	Reproductive Health Commodity Security
HCMIS	Health Commodity Management Information System	SOPs	standard operating procedures
HEWs	health extension workers		
HR	human resources		
IFHP	Integrated Family Health Program		
IMS	Inventory Management System		
IPLS	Integrated Pharmaceutical Logistics System		
IST	In Service Training		
IUD	intrauterine device		
JSI	John Snow, Inc.		
LMIS	logistics management information system		
MCH	maternal and child health		
MWRA	married women of reproductive age		
OJT	on-the-job		

Further Reading

Saving and Improving Lives through Increased Access to Contraceptives, 2014

Health Logistics Quarterly (2010, 2011, 2012, 2013, 2014, 2015)

National Survey of the Integrated Pharmaceutical Logistics System, 2015

Health Commodities Management Information System Call Center: Cost Effective and Sustainable User Support, 2014

Collaboration Builds Sustainable Healthcare Supply Chain, Boosting Health Outcomes, 2014

Shelving and Pharmacy Store Improvement—A Worthwhile Investment, 2014

In Ethiopia, Health Post Resupply Initiative Helps Bring Medicines to the Last Mile, 2013

Empowered with Real-Time Logistics Data, Health Facilities Improve Access to Medicines, 2013

Family Planning Market Analysis: Using Evidence on Demand and Use for Contraception to Plan for a Total Market Approach in Ethiopia, 2013

Pre-Service Training: Saving lives by developing local capacity in supply chain management (SCM), 2013

A Total Market Approach to Meeting Ethiopia's Family Planning Goals, 2013

Contraceptive Security and Decentralization: Reproductive Health Commodity Security in a Decentralized Setting: Learning from Ethiopia, 2012

Automated System for Better Public Health Logistics, 2012

Health Post Resupply Initiative to Address Commodity Management Skills of Health Extension Workers, 2011

Ethiopia: Advocacy Efforts Increase Government Financial Support for Contraceptives, 2011

First Person: Automation for Hospital Pharmacies Improves Patient Care in Ethiopia, 2011

Ethiopian Pharmacists Master the Complex Supply System for a Large Teaching Hospital, 2011

Ethiopian Women Want a Steady Supply of Contraceptives, 2011

Ethiopia: Better Storage of Medicines Means Better Care at Goba Hospital, 2011

Ethiopia: Regions Organize to Ensure Focus on Contraceptive Security, 2010

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Also cited DHS reports and PMA

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