

USAID | DELIVER PROJECT

Final Country Report

Yemen



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DELIVER
PROJECT
Final Country
Report**

Yemen

USAID | DELIVER PROJECT, Task Order 4

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Abstract

This report summarizes the work carried out in Yemen by the USAID | DELIVER PROJECT from 2012–2015. The project provided technical assistance in family planning and maternal and child health by strengthening the health supply chain and improving the environment for commodity security.

Cover photo: Yemeni women at a workshop.

USAID | DELIVER PROJECT

John Snow, Inc.

1616 Fort Myer Drive, 16th Floor

Arlington, VA 22209 USA

Phone: 703-528-7474

Fax: 703-528-7480

Email: askdeliver@jsi.com

Internet: deliver.jsi.com

CONTENTS

01

Project Overview and Context

Pages 7–9

- ‡ Project Overview
- ‡ Investment in
Technical Assistance

02

Technical Assistance

Pages 11–22

- ‡ Technical Assistance
Overview
- ‡ Strengthen Logistics
System Performance
- ‡ Increase National
Commitment to
Commodity Security
- ‡ Build Sustainable
Capacity

03

The Way Forward

Pages 23–24

- ‡ Re-establishing the
Pipeline
- ‡ Promoting
Sustainability through
Capacity
Development

04

Additional Resources

Pages 25–27

- ‡ Acronyms
- ‡ Further Reading



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 contraceptives and condoms to field programs—a critical component of a health program's success.

USAID, through the USAID | DELIVER PROJECT (the project), invests in the long-term health of Yemen by supporting the Population Sector of the Ministry of Public Health and Population (MOPHP) in implementing key components of its Reproductive Health Commodity Security (RHCS) Road Map for 2011–2015. The interventions focused on supply chain system strengthening to ensure a reliable supply of contraceptives and other reproductive health commodities; however, the support did not include commodity financing and procurement.

In July 2012, when the project made an initial assessment, implants and injectables were out of stock at the central level, and stocks of IUDs and oral contraceptives were being depleted. Discussions for funding new procurements were underway, but none were planned. Anecdotal evidence suggested similar low stocks at the facilities.

The project had three main objectives: (1) strengthen the environment for RHCS, (2) redesign the supply chain system to ensure continuous availability of commodities, and (3) develop the institutional capacity of the Population Sector to become a center for supply chain management.

Three major objectives:

Strengthen the environment for reproductive health commodity security.

Redesign the supply chain system to ensure the continuous availability of commodities.

Develop the institutional capacity of the population sector to be a center for supply chain management.

Investment in Technical Assistance

During the project's two years in Yemen, considerable progress was made and many *firsts* were completed, despite the uncertain security environment. The project coordinated the formation of the RHCS subgroup, confirming objectives and responsibilities for its members; and facilitated a first-ever annual national RHCS review meeting. Evidence-based advocacy materials were developed as tools for the MOPHP, and an assessment of the contraceptives procurement process identified bottlenecks and made recommendations for improvement. The project's investment in technical assistance to Yemen totaled \$5.9 million.

Collaborating with supply chain practitioners and national partners, the contraceptive supply chain was redesigned, and an improved set of

standard operating procedures (SOPs) were developed. A nationwide training program on the new SOPs was developed and rolled out to health workers at governorates and districts.

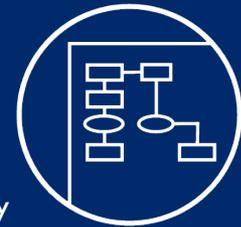
The MOPHP training staff co-led the training efforts, sharing the ownership of the program's progress and quality. The project also carried out the first annual consumption-based forecast; an activity that, historically, had relied on demographic data. Tools and training on pipeline management complemented this activity.

To establish a baseline for supply chain performance and practices, a first annual stock survey was designed and executed; as co-leaders, the MOPHP was responsible for progress and results.

Facilitated RHCS coordination and produced advocacy tools to strengthen the environment for contraceptive security



Redesigned the contraceptive supply chain and improved SOPs for greater supply chain operations efficiency



Conducted first annual consumption-based forecast, achieving greater forecasting accuracy





Technical Assistance

Technical Assistance 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 contraceptives and condoms to field programs—a critical component of a health program’s success.

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 Yemen, these interventions include the following:

Strengthen Logistics System Performance

- Redesign the family planning supply chain and improve SOPs.
- Conduct reproductive health forecast for advocacy and contraceptive forecasting.
- Complete first annual stock survey.

Increase the National Commitment to Commodity Security

- Increase RHSC by developing a subgroup within the population sector of the MOPHP.
- Map the procurement process for contraceptive and reproductive health commodities.

Build Sustainable Capacity

- Train health workers nationwide to use the improved SOPs for the contraceptive supply chain.



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. The project's supply chain integration framework guides these efforts.

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 healthcare services and supplies.

Redesign the Family Planning Supply Chain and Improve SOPs

In January 2013, a supply chain system design workshop brought decisionmakers and practitioners from the central- and governorate-levels together to agree on the design and functionality of the contraceptive supply chain, including the inventory control system and the logistics management information system (LMIS). A comprehensive set of improved SOPs was subsequently developed for the enhanced supply chain system; in May 2014, the MOPHP, governorates, and development partners formally endorsed them.

This was a collaborative activity with the MOPHP, USAID, and United Nations Population Fund (UNFPA) as lead partners; and included participation from several other national partners and stakeholders. All aspects of the system design work and development of the SOPs was carried out collaboratively, with inputs at the central- and governorate-levels. The improved SOPs were rolled out nationally.

With the goal of increasing access to contraceptives through uninterrupted product availability, an enhanced supply chain system design will provide the architecture for a reliable and responsive commodity distribution system, and it will enable overall capacity building for the system.

The main system components—an inventory control system and an LMIS—were designed collaboratively to ensure local ownership of the enhancements. Inventory control parameters were defined, based on the national and regional context.

Critical data items for the LMIS were agreed upon and standard forms were designed to record and report logistics data at all levels of the supply chain. With these, commodity management decisions would be informed by data and the performance of the supply chain.

RESULTS

A redesigned inventory control system created more effective warehouse operations.

A redesigned LMIS improved the visibility of information.

A comprehensive set of improved SOPs optimized processes within the supply chain.

Conduct Reproductive Health Forecast for Advocacy and Contraceptive Forecasting

To achieve the country's Millennium Development Goals 4 and 5—and for the success of wider efforts in Yemen to scale up health services—improved access to commodities for reproductive health, child health, and communicable diseases is essential. As such, the MOPHP needed increased funding for non-contraceptive reproductive health commodities. In 2013, for 2014–2018, the project collaborated with the MOPHP to forecast the quantity and costs for selected life-saving reproductive health commodities, which would be used for advocacy. The development partner, the Embassy of the Kingdom of the Netherlands (EKN), subsequently used the forecast as the basis for commodity procurement.

The project also collaborated with the MOPHP to develop, for the first time, a consumption-based forecast for contraceptive commodities. Historically, forecasts were based on demographic data. Logistics data, including critical information on current stock levels, was collected at the central- and governorate-levels to calculate consumption rates and forecast contraceptive needs for 2014–2018.

The MOPHP at the central level used the forecast to make procurement and distribution decisions and to evaluate procurements already in process. Both forecasts were carried out in collaboration with the MOPHP, at the national level.

RESULTS

A five-year forecast for life-saving reproductive health commodities enabled advocacy and was used as a basis for commodity procurement.

A five-year forecast for contraceptive commodities supported procurement and distribution decisions.

Complete First Annual Stock Survey

Between June and October 2014, the project carried out the first annual nationwide stock survey to gather logistics information at the governorate- and district store-levels on the stock status for all contraceptive and selected maternal and child health commodities, as well as to identify current commodity management practices throughout the system. Working in close collaboration with the MOPHP, the survey ensured that at least one facility was sampled in every governorate in the country. A proportional stratified random sample identified 58 districts across all 22 governorates. By late October 2014, all but six governorates had been surveyed. The remaining six were not accessible because of the deteriorating security situation; they were eventually dropped from the survey.

The results of this survey would provide the baseline with which future supply chain performance measures will be compared, for both commodity availability and current management practices.

The survey found that product availability on the day of the visit was relatively low—overall, almost 70 percent of stores were stocked out of one or more contraceptive. Approximately 78 percent of districts and 88 percent of governorates were stocked out of one or more contraceptive on the day of visit.

Data accuracy was also generally poor. A review of stock cards showed a little more than 23 percent of items were within 10 percent of the physical count taken; a quarter of the items were within 20 percent. In 14 facilities, data collectors could not access any information.

Most facilities reported using some type of record to manage commodities. Approximately 38 percent of facilities use stock cards, 32 percent use computers, and 25 percent use stock ledgers. Almost 40 percent of facilities reported using other forms of recordkeeping, including manual records and vouchers.

Approximately 70 percent of governorate and district stores kept storage areas completely, or mostly, neat and well organized.

RESULTS

A first annual nationwide stock survey created a baseline for future supply chain performance, including commodity availability and management practices.

Almost 70 percent of stores were stocked out of one or more contraceptives.

Data accuracy was poor.

Most facilities reported using some type of record to manage commodities.

Approximately 70 percent of governorate- and district-stores kept storage areas completely, or mostly, neat and well organized.



Increase the National Commitment to Commodity Security

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 the availability of, and access to, these commodities.

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

Increase RHSC by Developing a Subgroup Within the Population Sector of the MOPHP

The project created a group within the; helped finalize the SOPs for the supply system redesign; helped organize and initiate the governorate equipment and staffing survey; helped organize and initiate the annual stock survey; and regularly reviewed the progress of the RHCS roadmap.

The project, from its inception in Yemen, promoted sustainability by working closely with the MOPHP to ensure both the cooperation and involvement of its staff in all project-funded activities. The Population Sector of the MOPHP that met regularly to discuss matters related to commodity security and to plan activities/ interventions to improve the supply chain. The subgroup was formulated in early 2014 when a terms of reference (TOR) was developed and circulated to prospective members.

The TOR was adopted in mid-2014; the group met during the remainder of 2014.

All partners with a keen interest and partners that provided support for RHCS, were involved: MOPHP, the project, USAID, UNFPA, United Nations Children's Fund (UNICEF), World Health Organization (WHO), Yemen, and EKN.

The subgroup's objectives were to (1) provide guidance on policies and practices related to the supply chain, (2) harmonize and coordinate the MOPHP and development partners to improve the supply chain, and (3) work to mobilize resources that ensure adequate funding for contraceptive commodities.

The subgroup, meeting throughout 2014, planned and coordinated many activities. During this time, the subgroup continually reviewed the five-year forecast and two-year supply plan for contraceptives was clearly shown by the RHCS subgroup.

RESULTS

The RHCS subgroup played an important role in planning and coordinating numerous supply chain strengthening activities.

The group—

- provided guidance on policies and practices
- coordinated among MOPHP and development partners
- mobilized funding for contraceptives.

Map the Procurement Process for Contraceptive and Reproductive Health Commodities

From April to August 2014, the project reviewed the end-to-end procurement process for contraceptive and reproductive health commodities, mapped the key activities, identified critical decision points, and identified the procurement documentation requirements of key stakeholders. Common or recurrent bottlenecks in the procurement process were identified; recommendations were made for improvement. Procurement planning for contraceptive and reproductive health commodities takes place at the MOPHP's central level in Sana'a. UNFPA acts as the MOPHP's procurement agent and coordinates procurement activity through its office in Sana'a. The MOPHP and UNFPA, as the procurement agent, are the main actors in the procurement process. Main funding partners include the World Bank, EKN, UNICEF, UNFPA, and *Kreditanstalt für Wiederaufbau* (KfW). An important component to improving commodity availability is an informed procurement process, where procedural steps, requirements, and deadlines are known and adhered to by all stakeholders.

The study found that the procurement process for contraceptives and reproductive health commodities is lengthy; but, it is not complex. Instead of modifying the steps of the process, the main opportunities for improvement are related to improved communication among partners and more consistent information sharing throughout the process. Moreover, the MOPHP and its partners should leverage the RHCS subgroup as a forum to share updates, highlight potential problems, and agree on solutions early; thereby minimizing delays and discrepancies often seen later in the process.

This approach, with an improved forecasting process, will enable the MOPHP to drive the procurement process from an informed position; rather than a reactive one that may be influenced by delays, a lack of information, or unforeseen critical needs.

The study was published in both English and Arabic, to ensure its accessibility for all stakeholders.

RESULTS

Mapping the procurement process for contraceptives and reproductive health commodities enabled stakeholders to—

- identify common or recurrent bottlenecks
- access information on steps, requirements, and deadlines during the procurement process.



Build Sustainable Capacity

An essential component of a robust health supply chain is the staff that implements the logistics tasks. To run effectively, public health supply chains require motivated, trained, and skilled staff with competency in the various essential logistics functions; they must also be 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 in public health supply chain systems in the developing world. A focus on developing a superior workforce enables organizations and individual staff to accomplish their customer service goals, ensuring a stronger performance for public health personnel; and, therefore, increased availability of contraceptives and other essential health products.

Train Health Workers Nationwide to Use the Improved SOPs for the Contraceptive Supply Chain

The project increased health worker capacity with a systematic approach, based on a set of SOPs for managing family planning and reproductive health supplies. The main objective of the training was to build the supply chain management knowledge and skills of the health system workers tasked with supply chain duties at the MOPHP.

For the training, the supply chain management tools and training materials were prepared in English and translated into Arabic. During the 80 workshops, 1,279 female service providers and 473 male service providers were trained. Participants from across the country improved their knowledge of supply chain topics. After aggregating the pre- and post-test scores for all governorates, the average pre-test score was 42 percent and the average post-test score was 80 percent, indicating an average improvement of 91 percent in participant's knowledge of the system and its tools.

The MOPHP was the principal training partner. They provided trainers, while the project provided system design and documentation, training quality control, and financial and administrative support. UNFPA also collaborated on planning for the activity.

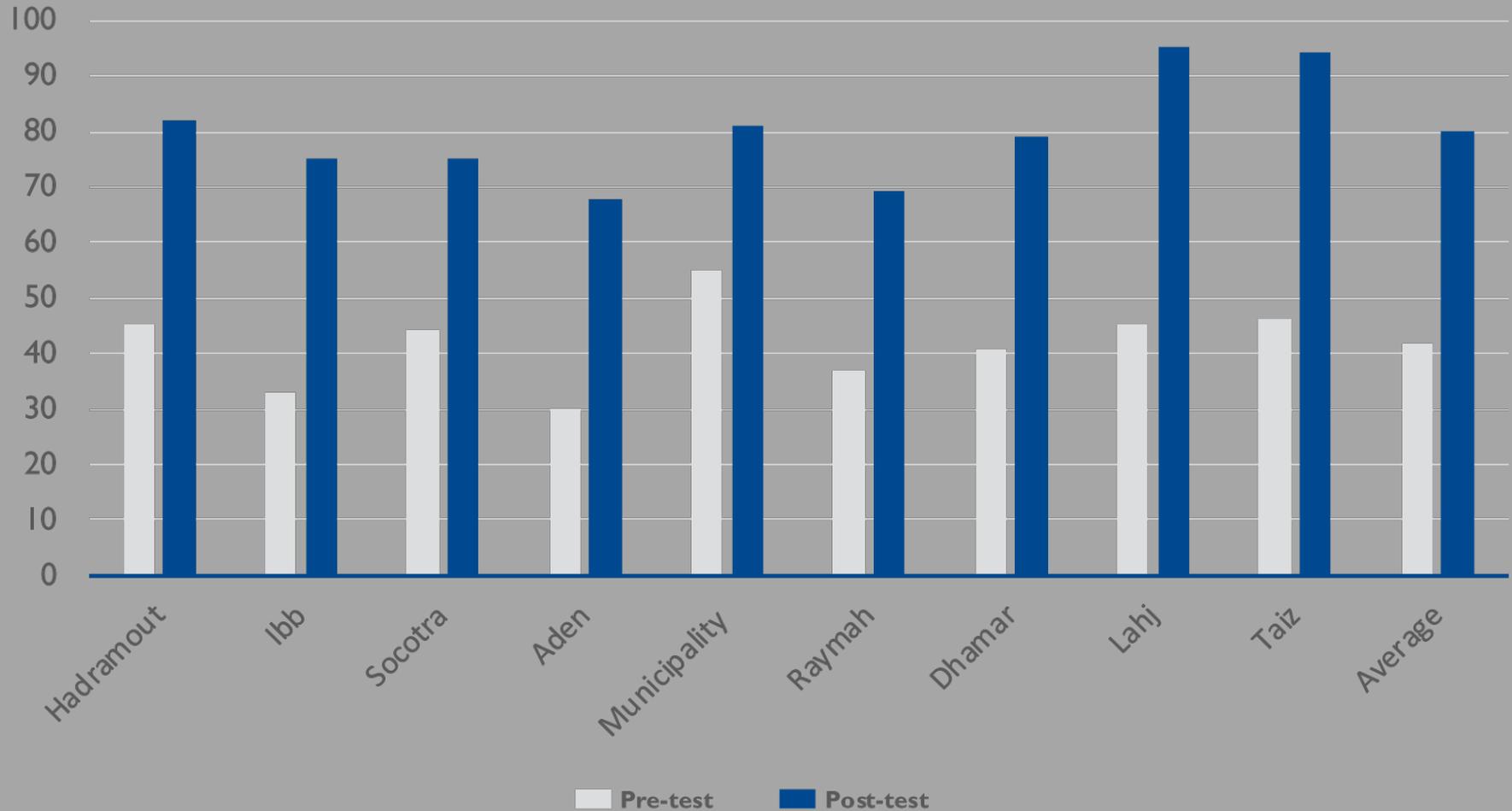
Originally, the project committed to training in two governorates; but, at the urging of the MOPHP, the project initiated a national rollout of the improved SOPs, in coordination with UNFPA and the Government of Yemen. Between September 2014 and March 2015, the project completed trainings in Hadramout, Ibb, Socotra, Aden, Sana'a municipality, Raymah (Hodeidah), Dhamar, Lahj, and Taiz. Training was stopped in March because of the armed conflict; it did not reach Sana'a or Aldhalee.

RESULTS

A nationwide rollout of the improved SOPs—

- built supply chain management capacity for 1,279 MOPHP service providers in nine governorates
- improved supply chain system knowledge among participants by 91 percent, on average.

Comparison of SCM Knowledge Before and After Training





The Way Forward

The Way Forward

Re-establishing the Pipeline

At a future date, when development aid partners are able to assist Yemen in the form of RHCS, the MOPHP will probably need substantial assistance to re-establish the supply chain. The existing pipeline of reproductive health commodities will, most likely, be depleted and will need to be replenished.

One of the first priorities will be to engage the donor community to provide emergency shipments of reproductive health commodities to refill the pipeline. The tools and analysis developed in early 2014, with assistance from the project—to produce the five-year forecast for reproductive health products—can be adapted to the new paradigm; it will be able to meet this challenge and ensure product availability nationally.

Promoting Sustainability through Capacity Development

Developing and maintaining the capacity of the Population Sector of the MOPHP to manage and implement the supply chain for reproductive health commodities has always been a challenge. This will be especially true after some sense of normalcy returns to the health system.

Fortunately, the MOPHP can draw on a number of resources. The SOP training curriculum, developed by the project, is available and could easily be adapted to the current situation. Training on the SOP could begin quickly with sufficient donor support. In addition, a supportive supervision system was being developed when the aid was suspended; it could be refined and introduced to promote sustainability.

Finally, the Supply Chain Fundamentals curriculum, developed by the project, could be implemented with few donor resources. The MOPHP central- and governorate-level supply chain staff would benefit significantly from this training on supply chain core concepts and strengthening the institutional capacity of the Population Sector to be a center for supply chain management.

One of the first priorities will be to engage the donor community to provide emergency shipments of reproductive health commodities to refill the pipeline.



Additional Resources

Acronyms

EKN	Embassy of the Kingdom of the Netherlands
JSI	John Snow, Inc.
KfW	<i>Kreditanstalt für Wiederaufbau</i>
LMIS	logistics management information system
MOPHP	Ministry of Public Health and Population
RHCS	reproductive health commodity security
SCM	supply chain management
SOP	standard operating procedure
TOR	terms of reference
U.S.	United States
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Further Reading

Spisak, Cary. 2015. *Yemen: Mapping the Procurement Process for Family Planning and Reproductive Health Commodities*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

For the Arabic translation, see http://deliver.jsi.com/dlvr_content/resources/allpubs/countryreports/YE_Map_Proc_AR.pdf

USAID | DELIVER PROJECT, Task Order 1. 2011. *The Logistics Handbook: A Practical Guide for the Supply Chain Management of Health Commodities*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

For the Arabic translation, see http://deliver.jsi.com/dlvr_content/resources/allpubs/guidelines/LogiHand_AR.pdf

For more information, please visit deliver.jsi.com.



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John Snow, Inc.

1616 Fort Myer Drive, 16th Floor

Arlington, VA 22209 USA

Phone: 703-528-7474

Fax: 703-528-7480

Email: askdeliver@jsi.com

Internet: deliver.jsi.com