

USAID | DELIVER PROJECT

Final Country Report

India



PEPFAR
U.S. President's Emergency Plan for AIDS Relief



USAID | DELIVER PROJECT
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USAID | DELIVER PROJECT Final Country Report

India



USAID | DELIVER PROJECT, Task Order 4

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Cover photo: Participants at a two-day SOP training in Mandi District, Himachal Pradesh, July 2015. Credit: John Snow, Inc.

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

As part of its ongoing support to states, USAID asked the USAID | DELIVER PROJECT (the project) to support its goal of an AIDS-free generation by providing technical assistance in supply chain management (SCM) for essential medicines for treating sexually transmitted infections (STI) and opportunistic infections (OIs), condoms, and other supplies. The project supported HIV and AIDS and essential medicines supply chains as a cross-cutting approach to mitigate challenges related to drug availability.

The project began technical assistance in India in 2013, working in four USAID priority states—Haryana, Himachal Pradesh, Jharkhand, and Uttarakhand—three of which were experiencing increasing rates of HIV infection among antenatal care clients.

The project worked with the State Health Missions (SHMs), conducting landscape assessments to map the organizational structure for HIV and AIDS and reproductive, maternal, newborn, child, and adolescent health (RMNCH+A) supply chains. The project examined three supply chain areas—people, processes, and technologies—identifying a number of key SCM gaps.

The project found that in states where procedures for essential medicines supply chain

operations existed, they were largely undocumented or inconsistently applied. Also, staff responsible for supply chain management tasks often had little or no training.

The project provided technical assistance to develop formal guidance on roles and responsibilities for each function of the supply chain, as well as on the use of data for decisionmaking, with an emphasis on developing and implementing standard operating procedures (SOPs) and building health personnel's basic supply chain management capacity.

This report presents examples of how the project helped to increase supply chain efficiency and standardization, while encouraging leadership and management-level engagement. The work provides a basis for India to further strengthen its public health supply chain systems with the roll-out of SOPs and the implementation of supportive supervision visits throughout the priority states.

“The current trend of HIV epidemic and responses in India include traditionally low/moderate prevalence states. A long-term increasing trend has been again highlighted during 13th round in states of Assam, Chhattisgarh, Delhi, Gujarat, Haryana, Jharkhand, Odisha, Punjab, Uttarakhand, and Uttar Pradesh.”

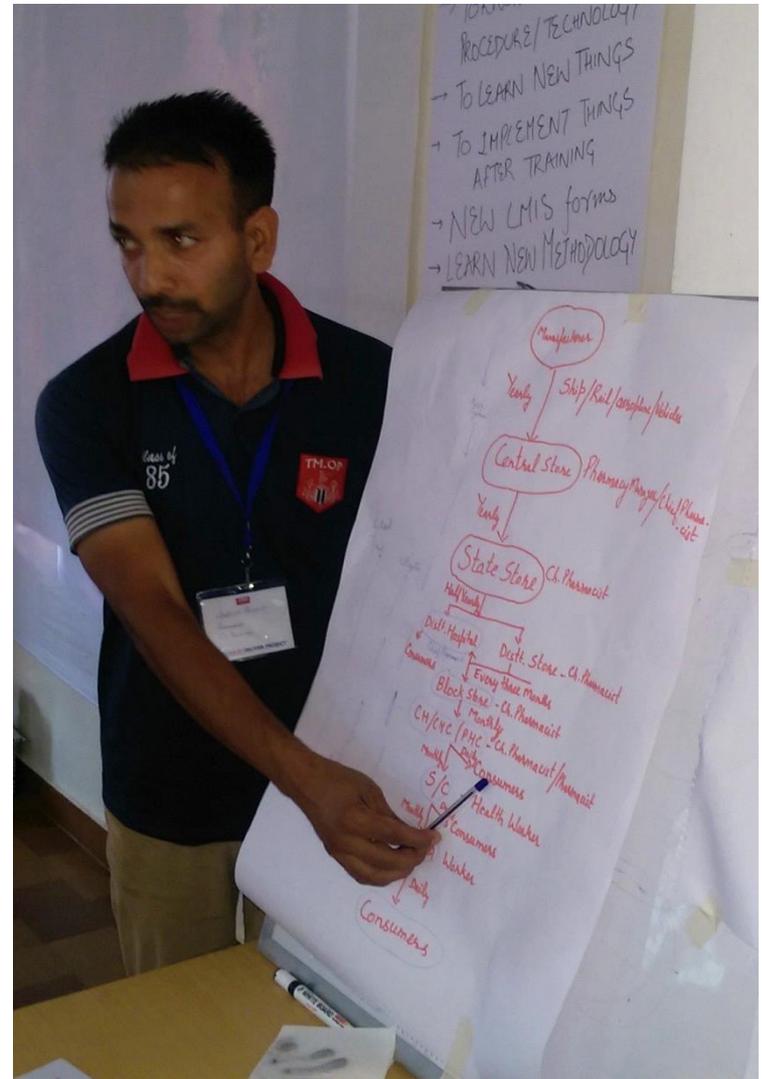
—National AIDS Control Organization, HIV Sentinel Surveillance, 2012–13

Investment in Technical Assistance

This President's Emergency Plan for AIDS Relief (PEPFAR)-supported project was authorized by USAID | India. It provided nearly six million dollars worth of technical support for supply chain management of essential medicines, family planning, and HIV and AIDS commodities, with a focus on condoms and STI and OI drugs.

The project supported system strengthening to improve the availability of medicines and health consumables, which required overall strengthening of states' essential medicine programs. Special emphasis was given to the 35 products defined by the 5x5 Matrix for High-Impact RMNCH+A Interventions, which include condoms as well as the broad spectrum antibiotics required to treat STIs and OIs.

In January of 2014, the National AIDS Control Organization, which works closely with the World Bank and the Clinton Health Access Initiative (CHAI), requested project assistance with the national roll-out of the inventory management system (IMS) developed by CHAI to manage data for supply management. The project provided IMS trainings and advocated its use in USAID-priority states and southern states with the highest levels of HIV prevalence.





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 health program 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 India, these interventions included:

STRENGTHEN

Logistics System Performance

- Analyze and design supply chain systems
- Strengthen forecasting and supply planning
- Increase visibility of supply chain performance and encourage use of data for supply chain decisionmaking

INCREASE

National Commitment to Commodity Security

- Develop advocacy strategies and activities to help essential medicines programs secure access to needed resources

BUILD

Sustainable Capacity

- Build supply chain operations capacity
- Develop and implement SOPs for supply chain operations



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.

Analyze and Design Supply Chain Systems

Supply chain managers and health workers who understand and use standard operating procedures are better able to perform the tasks required to maintain commodity availability.

Between September 2014 and May 2015, the project mapped existing supply chains in four states to identify gaps and bottlenecks. This led to SOP design workshops that identified ways to streamline and standardize various supply chain processes in each state.

System requirements gathering activities for the SOPs began in September and were completed in December in two districts per state: Ambala and Panchkula in Haryana; Mandi and Solan in Himachal Pradesh; Udham Singh Nagar and Pauri Garhwal in Uttarakhand; and Gumla and Lohardaga in Jharkhand.

At subsequent workshops, participants discussed the bottlenecks and gaps and suggested ways that the SOPs could mitigate them.

The project finalized the SOPs in collaboration with each SHM. During supportive supervision visits, the project provided on-the-job training to supply chain staff for effective implementation of the SOPs.

In addition to pre-empting problems, the SOPs outline key processes, data collection tools, and staff requirements and responsibilities. Most importantly, the SOPs provide detailed and easy-to-follow instructions, allowing every employee to complete a task correctly every time.



“The SOP manual...covers all important aspects of supply chain management at the health-facility level. The document is well-designed and easy to understand. I am hopeful that after the training [of health facility staff], we will see an improvement in staff performance logistics data quality and availability of medicines.”

—Dr. Gupta, Managing Director of Haryana Medical Services Corporation Limited

Strengthen Forecasting and Supply Planning

Forecasting exercises help program managers identify funding needs for procurement, maximize available resources, and advocate for additional resources to ensure a continuous supply of commodities.

Good forecasts ensure that demand is understood so that necessary commodities can be made available at service delivery points. When shared, they can contribute to better relationships with suppliers and, accordingly, better pricing. But a forecast is only as good as data that goes into it.

The project helped standardize forecasting processes for selected commodities in Haryana and Jharkhand and enabled these states to prepare and submit supply plans for fiscal year (FY) 2015-2016. To introduce evidence-based quantification, the project conducted forecasting workshops in Haryana and Jharkhand for 68 state and district staff.

In Jharkhand, where only health management information system (HMIS) and demographic data were available, stakeholders developed a district-based forecasting model that was later extended to forecast essential medicines for the entire state.

In Haryana, stakeholders developed a state-level forecast using procurement and consumption data stored in the Haryana Medical Services Corporation, Ltd. (HMSCL) electronic logistics management information system (eLMIS).

“This is the first time we’ve had data-driven forecast. Real numbers, real amount of commodities, based on reality. Not last year’s numbers plus 10 percent, like usual.”

—Jharkhand SHM Director
Ashish Singhmar



Results

By looking at consumption data and comparing it to the forecast used, Haryana and Jharkhand states are able to better understand the quality of their forecasts and improve future forecasts. Efforts to record, collect, and use logistics data will continue to improve the quality of forecasts in India.



Increase Visibility of Supply Chain Performance and Encourage Use of Data for Supply Chain Decisionmaking

Improve data availability to enable evidence-based decisionmaking.

In Haryana, the project reviewed the existing Online Drug Inventory Supply Chain Management Software (ODISCMS) and prepared user-friendly reports, key performance indicators, and a dashboard to allow state-level HMSCL staff to make better supply management decisions. The materials were submitted to HMSCL, which authorized revisions to the ODISCMS based on the project's suggestions.

HMSCL plans to implement the changes in 2016. Key performance indicators cover areas such as procurement, vendor compliance, warehouse performance, inventory management, data quality, and reporting.

The project also helped HMSCL prepare a technical proposal for the FY2015-2016 Program Implementation Plan (PIP) to upgrade hardware to enhance software capacity.

Sample Key Performance Indicators

- Availability of essential medicines at SDPs
- Percentage of purchase orders delivered on time
- Stock wastage due to expiry, loss, or damage

The screenshot shows the homepage of the Online Drug Inventory system. It features a header with the system name and a navigation menu. Below the header, there is a 'Portal Performance Summary As On Yesterday' section with various user login statistics. A central image shows several pills and capsules. The bottom of the page includes a 'Feedback/Complaint' section and a logo for the Haryana State Government.

The screenshot displays a report titled 'Drugs Likely to Expire (Scheduled Report)'. It includes a search interface with dropdown menus for 'District', 'Institute Type', and 'Institute', and a 'With-in Days' input field. Below the search area, there is a table with 1628 records. The table columns are District, Institute Type, Institute Name, DrugId, Drug, BatchNo, Quantity, Days To Expire, and EMI Year. The table lists three records for Ambala, including CHC Shahtadpur, PHC Ambli, and PHC Magri, with details on drug types and quantities.

| District | Institute Type | Institute Name | DrugId | Drug | BatchNo | Quantity | Days To Expire | EMI Year |
|----------|----------------|----------------|--------|---------------------------------------------|---------|----------|----------------|-----------|
| Ambala | CHC | CHC Shahtadpur | 5.0.10 | Lorazepam Tablet 1 mg | EE-0130 | 3000 | 13 | 2013-2014 |
| Ambala | PHC | PHC Ambli | 29.0.3 | Cotton Bandages(1 X 12 Roll) 15 cm x 5 mtrs | 9-009 | 120 | 13 | 2013-2014 |
| Ambala | PHC | PHC Magri | 29.0.3 | Cotton Bandages(1 X 12 Roll) 15 cm x 5 mtrs | 9-009 | 120 | 13 | 2013-2014 |



Increase National Commitment to Commodity Security

The ability of clients to obtain and use commodities is the core of commodity security (CS). Clients include people who use family planning services; are on antiretroviral therapy; use condoms to prevent infection or medicines to treat STIs; take nutritional supplements; and who take antibiotics to cure OIs or tuberculosis co-infections. Service providers—a variety of clinical and program personnel—are also clients because they depend on a routine supply of the commodities needed to make health programs work.

Ensuring security for the different categories of health commodities for HIV and AIDS programs requires a comprehensive, multi-programmatic effort to assure the availability of antiretroviral drugs; drugs to treat OIs and STIs; HIV test kits; laboratory reagents; medical consumables such as syringes and gloves; and information, education, and communication materials to increase uptake and support adherence.

An effective CS strategy addresses logistics and service delivery functions that make programs work. These include leadership, human resources, financing, product and service quality, and myriad cross-cutting issues at all levels of health programs. The USAID | DELIVER PROJECT, in collaboration with its counterparts, undertakes a variety of policy and advocacy activities at the global, regional, and country levels.

Develop Advocacy Strategies and Activities to Help Essential Medicines Programs Secure Access to Needed Resources

From January to February 2015, the project provided technical support to incorporate supply chain activities into the PIPs in four priority states for FY2015-2016. The PIPs are the Government of India's mechanisms for funding state-level interventions for national priority programs.

If a state has a list of priority interventions but cannot fund them all, it proposes partial funding from the central level through the PIP. States also use PIPs to bring pilot interventions to state-wide scale.

During preparation of the FY2015-2016 PIPs, the project contributed to strengthening commodity security in each state. The project advocated for resource allocation for activities to improve supply chain management, including new standardized LMIS forms, software for eLMIS, and supportive supervision visits.

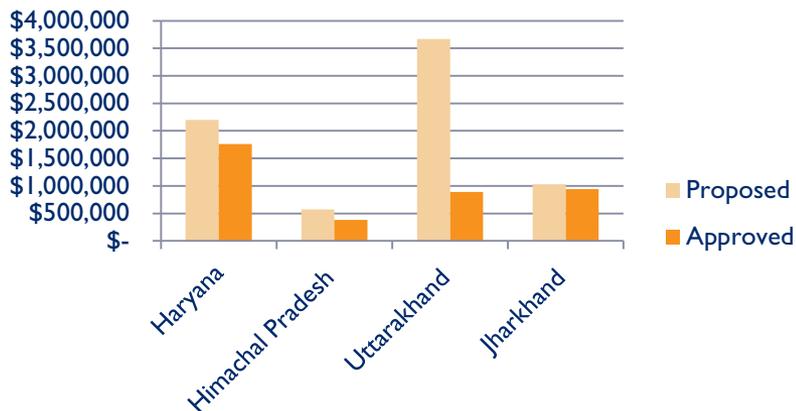
In all four states, the project successfully advocated for inclusion of supply chain strengthening measures worth almost US\$ 4 million.

Approved Funding in Haryana

Haryana-approved funding for supply chain improvements within the 2015-2016 PIP included proposals for:

- Development and upgrade of the ODISCMS (US \$85,000).
- Equipment and furniture at the regional drug warehouse (US \$177,000).
- Renting five regional warehouses (US \$161,000).
- Skill enhancement training for pharmacists and monitoring and evaluation personnel.

Proposed vs. Approved Supply Chain Strengthening Initiatives 2015/2016 (US\$)





Build Sustainable Capacity

The most 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 who are competent in the various essential logistics functions and empowered to make decisions that positively affect health supplies and supply chains.

The goal of the USAID | DELIVER PROJECT's capacity-building activities is to strengthen human resources in the developing world's public health supply chain systems. A focus on building a superior workforce helps organizations and individual staff accomplish customer service goals, ensures higher performance among public health personnel, and increases availability of contraceptives, condoms, medicines to treat STIs and OIs, and other essential health products.

Build Supply Chain Operations Capacity

Logistics training created the expertise needed to run the health supply chain effectively.

Since September 2014, the project has built knowledge and skills of supply chain professionals at national, state, district, and facility levels. In doing so, the project helped improve state-level supply chain performance to ensure health commodity availability at the last mile.

First, the project sponsored an accelerated training for upper management. The course gave 115 program administrators and managers an overview of supply chain fundamentals.

Subsequently, the project organized workshops to include state-level staff in the design of SOPs and standardized reporting systems. The project also introduced quantification techniques through forecasting workshops in Haryana and Jharkhand (see page 18).

After the trainings, each participating state implemented interventions to enhance essential medicine supply chain performance and accountability:

- Haryana standardized its inventory control system for essential medicines and began training district-level health staff.

- Jharkhand contracted out the implementation of a new eLMIS.
- Uttarakhand developed SOPs for an essential medicines inventory control system.
- Himachal Pradesh developed specifications and a budget for the implementation of a vendor-managed inventory system.

The project also held an interactive training program on supply chain management attended by 259 senior program administrators and supply chain managers from the four project states. Twenty-five of these attendees became trainers and helped cascade state-level supply chain training.

In addition to building knowledge and inventory and data management skills, the project organized a workshop in 2015 with the Institute of Supply Management-INDIA to teach key principles of public procurement based on the best practices of the private sector. This workshop was attended by 21 supply chain professionals representing health programs in the four states and the State AIDS Control Society of Telangana.

Increasing Capacity through Training

With 10 different capacity-building initiatives, the project trained 2,673 people and developed a cadre of supply chain champions who are improving supply chain performance and health commodity availability in India.

“Through learning from the supply chain foundations course, HMSCL has started implementing a max-min inventory control system for the regional warehouses.”

—Dr. Ashish Gupta, managing director of HMSCL

Develop and Implement SOPs for Supply Chain Operations

Improved tools and processes enabled staff to work more efficiently and effectively.

The project conducted landscape assessments and stock status surveys in four states. The findings indicated that supply chain processes were undocumented and inconsistently applied. To correct this, the project collaborated with stakeholders in each state to review business processes and design new LMIS forms.

Once an initial state process map was developed, the project was able to document how establishing an inventory control system could improve effectiveness, and how standardizing logistics data collection could support more efficient supply chain decisionmaking.

The project held design workshops to help the states improve supply chain processes by leveraging what was working well and identifying where there was a need for improvement. Revised processes were then codified into SOPs.

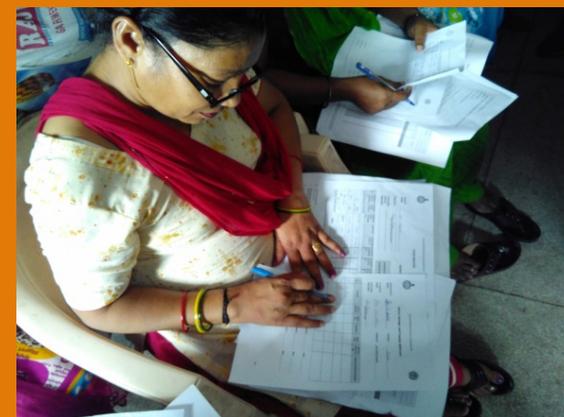
Changes were often minor, but they resulted in major improvements by defining and documenting work processes and expectations.

The project finalized the four states' SOPs for inventory and logistics data management and provided funding to translate related documents into Hindi.

Immediately after the formal approval of the SOPs, the project conducted a training-of-trainers to ensure that states had staff with the technical and presentation skills to conduct SOP trainings. Additionally, the project printed LMIS forms for eight model districts (two in each state).

The project then supported roll-out trainings for 469 professionals (pharmacists, medical officers, nurses, and auxiliary nurse midwives) in eight model districts in the four states.

The project ensured that health workers who have supply chain responsibilities understand the SOPs and use them to complete the tasks required to maintain commodity availability.





The Way Forward

The Way Forward

Advocate and Budget for Targeted SCM Interventions

The project co-sponsored an experiential leadership series that helped senior state-level managers address their toughest supply chain challenges. We expect that the 35 leaders who participated will continue to advocate for supply chain improvements as they implement the targeted, state-specific supply chain interventions identified in the leadership series.

The project helped the government in Himachal Pradesh to develop vendor-managed inventory (VMI) technical requirements for local tender. The state sees VMI as a way to manage ongoing storage capacity issues and would benefit from continued technical assistance. States should also seek technical support for their planned eLMIS implementations.

Scale up Supportive Supervision Visits and SOP Training

Staff have competing priorities and lack the skills to implement best practices rapidly. We recommend regular supportive supervision visits and training on supply chain SOPs and forecasting for facility staff. States and their partners must invest funding to scale up these activities in their other districts.

Data-Driven Forecasts and Routine Demand Monitoring

In India, forecasting has been conducted on an ad hoc basis, which frequently results in under- and over-estimation of quantities required. The project helped two states prepare forecasts based on demographic, morbidity, and limited logistics data, which resulted in more methodical estimations of future demand. The states must continue to monitor demand regularly and help their governments conduct annual forecasting exercises.

Hire Qualified Personnel and Give Clear Mandates for Results

There are not enough dedicated state SCM staff. States need organizational reform and must make concerted efforts to hire qualified people and give them well-defined job descriptions, roles, and responsibilities.

Supply Chain Leadership Change Management Model





Additional Resources

Acronyms

| | |
|---------|---------------------------------------------------------------|
| CHAI | Clinton Health Access Initiative |
| CS | commodity security |
| eLMIS | electronic logistics management information system |
| FY | fiscal year |
| HMIS | health management information system |
| HMSCL | Haryana Medical Services Corporation Limited |
| IMS | inventory management system |
| LMIS | logistics management information system |
| ODISCMS | Online Drug Inventory Supply Chain Management Software |
| PEPFAR | President's Emergency Plan for AIDS Relief |
| PIP | Program Implementation Plan |
| RMNCH+A | reproductive, maternal, newborn, child, and adolescent health |
| SCM | supply chain management |
| SHM | State Health Mission |
| SOP | standard operating procedure |
| STI | sexually transmitted disease |
| VMI | vendor-managed inventory |

Further Reading

Haryana, India: Findings and Recommendations--Landscape Analysis for RMNCH+A

http://deliver.jsi.com/dlvr_content/resources/allpubs/logisticsbriefs/HaryLandRMNCHBrief.pdf

Haryana, India: Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCH+A) Logistics Indicator Assessment Report 2015

http://deliver.jsi.com/dlvr_content/resources/allpubs/countryreports/HaryIndiRMNCH_LIAT.pdf

Health Commodities Storage Best Practices 2015 (in Hindi)

http://deliver.jsi.com/dlvr_content/resources/allpubs/guidelines/HealCommStor-Hindi.pdf

India Landscape Analysis of RMNCH+A Supply Chains Himachal Pradesh, Punjab and Uttarakhand 2015

http://deliver.jsi.com/dlvr_content/resources/allpubs/countryreports/IndiLandAnal.pdf

India: Overview of Project Activities 2015 http://deliver.jsi.com/dlvr_content/resources/allpubs/logisticsbriefs/IN_OverKeyProjActi.pdf

Logistics Handbook (in Hindi) http://deliver.jsi.com/dlvr_content/resources/allpubs/guidelines/LogiHand_HI.pdf

Overview: RMNCH+A Strategy (Haryana) 2015

http://deliver.jsi.com/dlvr_content/resources/allpubs/logisticsbriefs/IN_HaryOverRMNC.pdf

Success Story Diagnosing Supply Chain Maturity: Supply Chain Compass Tool Helps Three Countries 2015

http://deliver.jsi.com/dlvr_content/resources/allpubs/logisticsbriefs/DiagSCMatu.pdf

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