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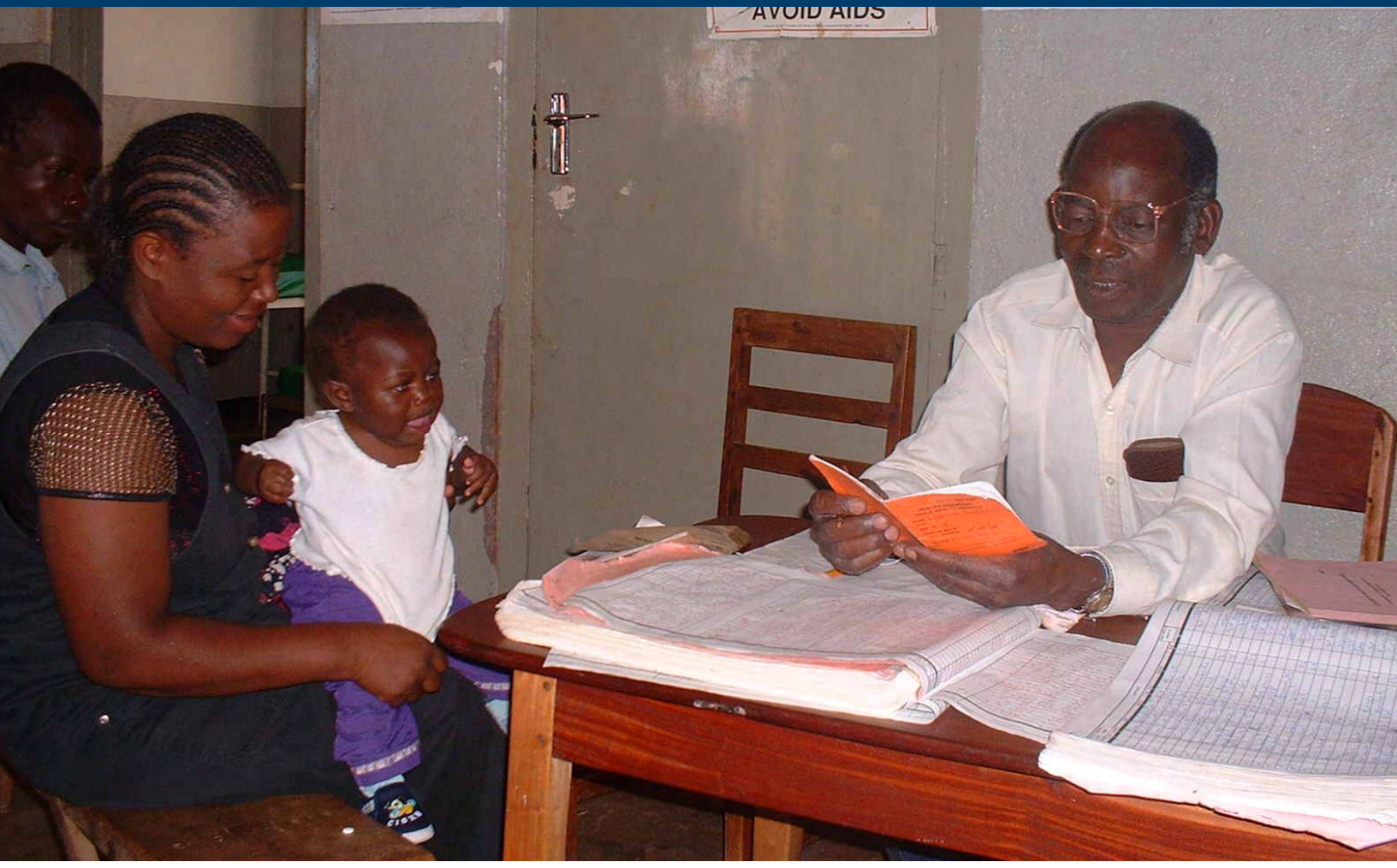
MALAWI: FINAL COUNTRY REPORT



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DELIVER
No Product? No Program. Logistics for Health

MALAWI: FINAL COUNTRY REPORT

DELIVER

DELIVER, a six-year worldwide technical assistance support contract, is funded by the U.S. Agency for International Development (USAID).

Implemented by John Snow, Inc. (JSI) (contract no. HRN-C-00-00-00010-00) and subcontractors (Manoff Group, Program for Appropriate Technology in Health [PATH], and Crown Agents Consultancy, Inc.), DELIVER strengthens the supply chains of health and family planning programs in developing countries to ensure the availability of critical health products for customers. DELIVER also provides technical management of USAID's central contraceptive management information system.

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Abstract

The Ministry of Health (MOH) of Malawi is committed to establishing an integrated health logistics system, especially for products in the Essential Health Package (EHP). Over a six-year period, DELIVER provided technical assistance to the MOH in building an integrated logistics system, including the implementation of the reengineered logistics system; designing and implementing a new training program based on a revised set of standard operating procedures; and improving the EHP supply chain and information systems.

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CONTENTS

ACRONYMS

CBD	community-based distribution
CDLMIS	Contraceptive Distribution and Logistics Management Information System
CHAM	Christian Health Association of Malawi
CMS	Central Medical Stores
CPR	contraceptive prevalence rate
CPT	contraceptive procurement table
DFID	Department for International Development (UK)
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DHO	District Health Officer
EHP	Essential Health Package
FPLM	Family Planning Logistics Management (project)
HTSS	Health and Technical Support Services (MOH department)
IEC	information, education, and communication
JSI	John Snow, Inc.
LIAT	Logistics Indicators Assessment Tool
LMIS	logistics management information system
LSAT	Logistics Systems Assessment Tool
M&E	monitoring and evaluation
MDHS	Malawi Demographic and Health Survey
MHCLMS	Malawi Health Commodities Logistics System
MIS	management information system
MOH	Ministry of Health
MSH	Management Sciences for Health
NGO	nongovernmental organization
NSO	National Statistical Office
NSSD	National Stock Status Database
PRB	Population Reference Bureau
PRSP	poverty reduction strategy paper
RA	resident advisor

RH	reproductive health
RHCS	reproductive health commodity security
RHLMIS	Reproductive Health Logistics Management Information System
RHU	Reproductive Health Unit
RMS	regional medical stores
SCM	Supply Chain Manager
SDP	service delivery point
SOP	standard operating procedure
SRHP	Sexual and Reproductive Health Program
STI	sexually transmitted infection
SWAp	sector wide approach (basket fund)
TA	technical assistance
TOT	training of trainers
UNFPA	United Nations Population Fund
USAID	U.S. Agency for International Development

ACKNOWLEDGMENTS

The DELIVER project would like to thank all of the implementing partners who made the substantial achievements in Malawi possible: the Malawi Ministry of Health, the Department of Health and Technical Support Services (HTSS), the Reproductive Health Unit (RHU), and the U.S. Agency for International Development (USAID)/Malawi for financial support throughout the life of the project.

The project owes special thanks to the following individuals for their invaluable support and for providing the much needed direction to the project implementation: Lilly Banda-Maliro, reproductive health specialist (USAID/Malawi); Lillian Ng'oma, director, HTSS; Jane Namasasu, deputy director of clinical services, HTSS, responsible for reproductive health; and Godfrey Kadewele, deputy director, HTSS, responsible for pharmaceuticals.

The project especially acknowledges the United Nations Population Fund and Management Sciences for Health, who provided both technical and financial support for some of our activities.

Project implementation would have been impossible without the active participation of the pharmacy technicians and assistants at the district level; health center personnel responsible for drug management; the pharmacists in-charge for the three regional medical stores, including the controller and chief stores officer for the Central Medical Stores; and the invaluable support of both the senior logistics officer and the logistics officer, Samuel Chirwa and Dorica Salamba, respectively.

Project success was made possible by the dedicated work of the Malawi Country Team, which included Aoua Diarra, coordinator of country programs; Norbert Pehe, country team leader; and Polina Flahive, program coordinator—all based in Washington; and the field office staff of Veronica Chirwa, resident logistics advisor; John Zingeni, management information systems associate; James Gondwe, assistant logistics management information system associate; Ruth Nyirongo, administrative assistant; and Noel Chongo and Amos Kabuluzi, drivers.

Finally, the project also expresses thanks to the former resident logistics advisor Hon. Richard Makowa Msowoya for having spearheaded most of the work involved in logistics system strengthening from the days of the Family Planning Logistics Management projects.

EXECUTIVE SUMMARY

The DELIVER project, implemented in Malawi in 2000, was a follow-on project to the Family Planning Logistics Management (FPLM) project; the project's goal was to consolidate the gains made in contraceptive availability. DELIVER provided technical assistance to the logistics activities of the Reproductive Health Unit (RHU) of the Ministry of Health (MOH) and later provided wider support to the MOH through the HTSS.

The MOH provides most of the health care in Malawi (62 percent) while the Christian Health Association of Malawi (CHAM) provides 38 percent. CHAM facilities complement public health sector facilities in the provision of reproductive health services and have full access to public-sector reproductive health (RH) commodities. In addition to the public sector, nongovernmental organizations (NGOs) are involved, of which *Banja La Mtsogolo* (a Malawian reproductive health care NGO), a Marie Stopes International affiliate, is the most important. Most recently, CHAM facilities under the sector wide approach (SWAp) governance are entering into service agreements with the MOH through the District Health Offices (DHOs) to provide free health care services, with the cost to be borne by the respective DHOs. Increasingly, Malawi is looking to strengthen private-sector participation in health care, and a public–private partnership policy document is being developed.

Both the Government of Malawi, through its MOH, and donors supply health commodities to the Central Medical Stores (CMS). CMS (which is more of an administrative office) immediately distributes health commodities to its three regional medical stores (RMSs), who in turn distribute health commodities to health facilities within their respective regions. At the RMSs, health commodities are packed for each health center, district hospital, central hospital, and mental hospital. They are then sent directly to facilities, while CHAM, voluntary counseling and testing centers, and NGO facilities collect their supplies from either the district pharmacy or health center in the areas where they operate. Contraceptives are also collected from the health centers by community-based distribution (CBD) supervisors and given to CBD agents during their monthly meetings or supervisory visits for distribution to clients.

DELIVER's role mainly was to assist the MOH in implementing a streamlined distribution system at the district, forecasting for contraceptives and managing contraceptive procurements, and implementing an automated logistics management information system (LMIS) for vital health products at the district level. DELIVER aim was to improve the health status of Malawian families by increasing use of improved health behaviors and services. DELIVER's overall strategic objective was "improved availability of contraceptives and other essential health commodities at service delivery points," through the following interventions.

ELEMENT I: IMPROVED LOGISTICS SYSTEM

Special emphasis was given to improving forecasting and procurement planning through the use of logistics data and PipeLine procurement planning software, pipeline monitoring, and strengthening donor coordination through the Logistics Committee, now a subcommittee of the Drugs and Medical Supplies Technical Working Group. Technical assistance was provided to the MOH to address the need for an effective LMIS. DELIVER also actively coordinated efforts with Management Sciences for Health to assist with improvements at the district and health center level in the Essential Health Package (EHP) supply chain and information system within the focus districts. The following was achieved:

- Provided computers and software to 17 district pharmacies and three computers previously committed for central hospitals.

- Provided fully functional computerized processing of MOH logistics data, using Supply Chain Manager software from 400+ service delivery points (SDPs) by 26 districts for the purpose of electronic ordering of contraceptives, sexually transmitted infection (STI) products, EHP drugs, and other products from the RMSs.
- Provided the HTSS with an achievable plan to introduce a national stock status database with the capability of computerized monitoring of consumption, order fill rates, and stock imbalances.
- Engaged HTSS and CMS in collaborative decision making to perform accurate quantification and forecasting of future needs.
- Empowered drug committees through provision of information, education, and communication materials to facilitate their proper functioning.
- Improved the availability of contraceptives and other essential drugs at the SDPs.

ELEMENT II: IMPROVED HUMAN CAPACITY IN LOGISTICS

Organizational performance improvement for the implementation of the logistics systems requires adequate human resources, systems, staff training, management and supervision, as well as the ability to assess performance and adopt improvement mechanisms. DELIVER strengthened the foundation of trained staff established under FPLM III activities to strengthen the district-level health management teams. Materials and manuals were developed for most of the interventions, and trainings were conducted for health workers at different levels of the supply chain. The following was achieved:

- Trained eight key MOH staff through the DELIVER Supply Chain Logistics course, which were held in various locations around the world; trained 19 staff at a locally organized course for RMS staff, district pharmacy technicians, and other supervisory staff from various programs, including some NGOS.
- Conducted an LMIS training of trainers (TOT) at which 10 officers were accredited with TOT for the Malawi Health Commodities Logistics System; and conducted an LMIS training for SDP staff attended by 362 health workers.
- Conducted a refresher LMIS training for district and SDP staff that was attended by 77 MOH and CHAM staff.
- Conducted Supply Chain Manager software trainings for a total of 60 pharmacy technicians to facilitate the use of the software at the district level.

ELEMENT III: IMPROVED RESOURCE MOBILIZATION FOR COMMODITY SECURITY

Commodity security entails being able to assess national commodity needs and to plan to meet those needs. Quality logistics information is critical for accurate forecasting and short-, intermediate-, and long-range procurement and financial planning to ensure clients always have a quality range of appropriate commodities from which to choose. Commodity security is ensured by strengthening policy commitment, donor coordination, and local leadership and by strategically implementing health sector reform. To ensure reproductive health commodity security (RHCS) for Malawi for 2006–2010 and, consequently, ensure the success of the reproductive health program, the MOH, with support from DELIVER, developed the RHCS Strategy 2006–2010 as an addendum or substrategy to the National Reproductive Health Strategy 2006–2010. The substrategy aims to support the national strategy by ensuring a continuous and reliable supply of RH commodities and, specifically, to ensure RH commodity security for all Malawians. The following were achieved:

- Conducted RHCS awareness raising workshop, implemented RHCS assessment, and conducted strategic planning workshop.

- Developed the National Contraceptive Security Strategic Plan.
- Improved the management of contraceptive procurement through proper forecasting, identification of resources to meet requirements, and pipeline monitoring.
- Improved the MOH's ability to collect, compile, and analyze dispensed-to-users data for contraceptives and other vital health products.
- Streamlined supply management and reporting procedures at the district and health facility level and improved access and distribution of contraceptives to the NGOs.
- Provided quality assurance, monitoring, and management through conducting commodity availability surveys.
- Conducted a process mapping exercise to eliminate non-value added activities at the various levels in the supply chain. This resulted in one level being eliminated and the eventual implementation of the direct delivery system.

ELEMENT V: ESTIMATION OF USAID CONTRACEPTIVE NEEDS

An estimation of the U.S. Agency for International Development (USAID) contraceptive needs includes preparing contraceptive procurement tables (CPTs) and ensuring their reliability and validity. DELIVER worked closely with the members of the Logistics Committee and the RHU to ensure accurate forecasts of contraceptives, STI drugs, and preparation of the CPTs and to foster donor coordination for the continuous full supply of contraceptives and STI drugs. The process continued, even after DELIVER moved to HTSS in October 2003, in collaboration with the department, using the same logistics data collected through LMIS reports. The results of the forecasts and procurement schedules were shared with stakeholders and donors through the Logistics Coordinating Committee and stakeholders meetings. Preparation of the CPTs provided USAID with a way of making sure that the estimates contained therein were reasonable and helped USAID/Washington to better manage its long-term procurement contracts. The following was achieved:

- Facilitated forecasting for selected EHP products (including contraceptives and STI drugs) at a workshop.
- Completed CPTs and STI and selected EHP quantifications.

PROGRAM BACKGROUND

DELIVER has been working in Malawi since 2000, as a follow-on to the Family Planning Logistics Management (FPLM) project, to consolidate the gains made in contraceptive availability. DELIVER provided technical assistance to the logistics activities of the Reproductive Health Unit (RHU) of the Ministry of Health (MOH).

The environment and operating assumptions for service delivery and logistics had been changing as the MOH implemented health sector reform. Starting in 1996, the MOH began implementing the Contraceptive Distribution and Logistics Management Information System (CDLMIS). This system relied on the Central Medical Stores (CMS), family planning coordinators at the district level, and family planning or maternal and child health nurses at the health facility level. The CDLMIS successfully maintained availability through 2000 when the Malawi Demographic and Health Survey (MDHS) showed an increase in the contraceptive prevalence rate (CPR) from 7 percent in 1992 to 26 percent in 2000; most recently, in 2004, the CPR rose to 28 percent. In 2000, the MOH modified the CDLMIS to include drugs for treating sexually transmitted infections (STIs) and renamed it the Reproductive Health Logistics Management Information System (RHLMIS). Implementation of the new RHLMIS began in 2001, and the rollout was completed in 2002.

The MOH has been undergoing a process of reform during the last decade, and the direction and focus of this reform was embodied in its five-year health plan for 1999 to 2004. This plan was designed to address Malawi's priority health problems and included five major strategies:

- Introduce the Essential Health Package (EHP).
- Continue the Bakili Muluzi Health Initiative[1], which works to ensure basic drugs at the community level, especially in areas without active health centers.
- Introduce a sector wide approach (SWAp).
- Decentralize health care management.
- Introduce and strengthen cost recovery/user fees.

In 2003, the MOH developed a joint Programme of Work for 2004–2010 aiming "to raise the level of health status of all Malawians by reducing the incidence of illness and occurrence of premature deaths in the population" (MOHP 2003).

The Programme of Work was divided into six components:

1. human resources
2. pharmaceutical and medical supplies
3. essential basic equipment

1 An initiative directed by the former head of state that ensured the availability of basic drugs at the community level especially in areas without active health centers. With the introduction of village clinics, the initiative has taken a different form.

4. infrastructure and facilities development
5. routine operations at service delivery level
6. central operations, policy and systems development.

Each component had an impact on the Malawi Health Commodities Logistics System with the net result of decreasing support for vertical logistics systems while moving to an integrated logistics system controlled at the district level. To address the challenges that health sector reform posed, while maintaining the availability of contraceptives, DELIVER assisted the MOH in pursuing the following strategies:

- Complete the rollout of the RHLMIS.
- Improve short- and medium-term forecasts of contraceptive requirements and identify the financial resources to meet those requirements.
- Improve the management of contraceptive procurements.
- Improve the MOH's ability to collect, compile, and analyze distribution to users' data for contraceptives and other vital health products.
- Streamline supply management and reporting procedures at the district and health facility level.
- Improve access to and distribution of contraceptives to nongovernmental organizations (NGOs), particularly non-health-oriented organizations.
- Raise the visibility of logistics within the MOH.
- Provide quality assurance, monitoring, and management.

These strategies allowed the MOH to maintain the RHLMIS until a new integrated system replaced it. This means that contraceptive availability was maintained while the availability of other supplies increased. Such strategies assisted the MOH in meeting its five-year-plan objectives of improving access to health and decentralization and assisted the USAID in meeting its objective of increasing the use of family planning.

The strategies above helped improve availability of family planning, STI drugs, and other vital health products, but they were not sufficient by themselves. For these strategies to succeed, the MOH and its partners continued to strengthen the CMS and provide adequate quantities of contraceptives, STI drugs, and other full supply products.

DELIVER's main role was to assist the MOH in implementing a streamlined distribution system at the district, in forecasting for contraceptives and managing contraceptive procurements, and in implementing an automated logistics management information system (LMIS) for vital health products.

DELIVER measured its performance using two indicators: availability of the three major contraceptives—condoms, Depo-Provera, and Lo-Femenal—and availability of stock status and dispensed-to-user data for family planning, STIs, and other vital health products.

To assist the MOH in pursuing the strategies listed above, DELIVER provided long- and short-term technical assistance to the MOH over a six-year period. Long-term assistance focused on policy change and implementation of agreed-upon workplans. Short-term assistance focused on specific activities in forecasting, LMIS, system design, organization development, and evaluation.

COUNTRY CONTEXT

Malawi is a land-locked country with an estimated population of approximately 12.3 million and an annual growth rate of 3.2 percent. It is one of the poorest countries in sub-Saharan Africa, with 65 percent of the population living below U.S.$2 per day (PRB 2005). The country faces several challenges, including a rapid population growth, a high infection rate for the HIV/AIDS, limited natural resources, high levels of inequality of wealth, recurring droughts, poor resource management, and environmental degradation (World Bank 2006).

Like many struggling sub-Saharan countries, the health indicators are bleak. Life expectancy at birth is now less than 50 years due to the effects of the adult HIV/AIDS prevalence rate of 12.7 percent. Major causes of morbidity and mortality are malaria, malnutrition, diarrhea, and respiratory diseases. Tuberculosis associated with HIV has also increased, which exerts more pressure on an already resource-constrained health system. Table 1 presents some key indicators that describe Malawi's situation.

Table 1. Key Indicators

Key Indicators	
Population (World Population Data Sheet [PRB 2005])	12.3 million
Per capita gross domestic product (Malawi Country Data Profile, World Development Database [World Bank 2006])	$180
Infant mortality (Malawi Demographic and Health Survey [NSO 2004])	76 per 1,000 births
Maternal mortality ratio (Malawi Demographic and Health Survey [NSO 2004])	984 per 100,000 live births
Life expectancy (Malawi Demographic and Health Survey [NSO 2004]; projections based on Malawi 1998 national census)	Male 42.8 years; female 45.5 years
HIV/AIDS prevalence rate (Malawi Demographic and Health Survey [NSO 2004])	12%
Total fertility rate (Malawi Demographic and Health Survey [NSO 2004])	6.0
Population growth rate (World Population Data Sheet [PRB 2005])	3.2%
Contraceptive prevalence rate, modern methods (Malawi Demographic and Health Survey [NSO 2004])	28%

Despite these statistics, Malawi made some progress over the last several years. The CPR increased from 7 percent in 1992 to 28 percent in 2004. The success of the family planning program was due at least in part, to the availability of contraceptives.

HEALTH CARE SYSTEM

Health care in Malawi is provided mainly by the MOH (62 percent), and the Christian Health Association of Malawi (CHAM) provides 38 percent. CHAM facilities complement public health sector facilities in the provision of reproductive health services and have full access to public-sector reproductive health (RH) commodities. In addition to the public sector, NGOs are involved, of which *Banja La Mtsogolo*, a

Marie Stopes International affiliate, is the most important. Most recently, CHAM facilities under the SWAp governance are entering into service agreements with the MOH through the district health offices (DHOs) to provide free health care services, with the cost to be borne by the respective DHOs.

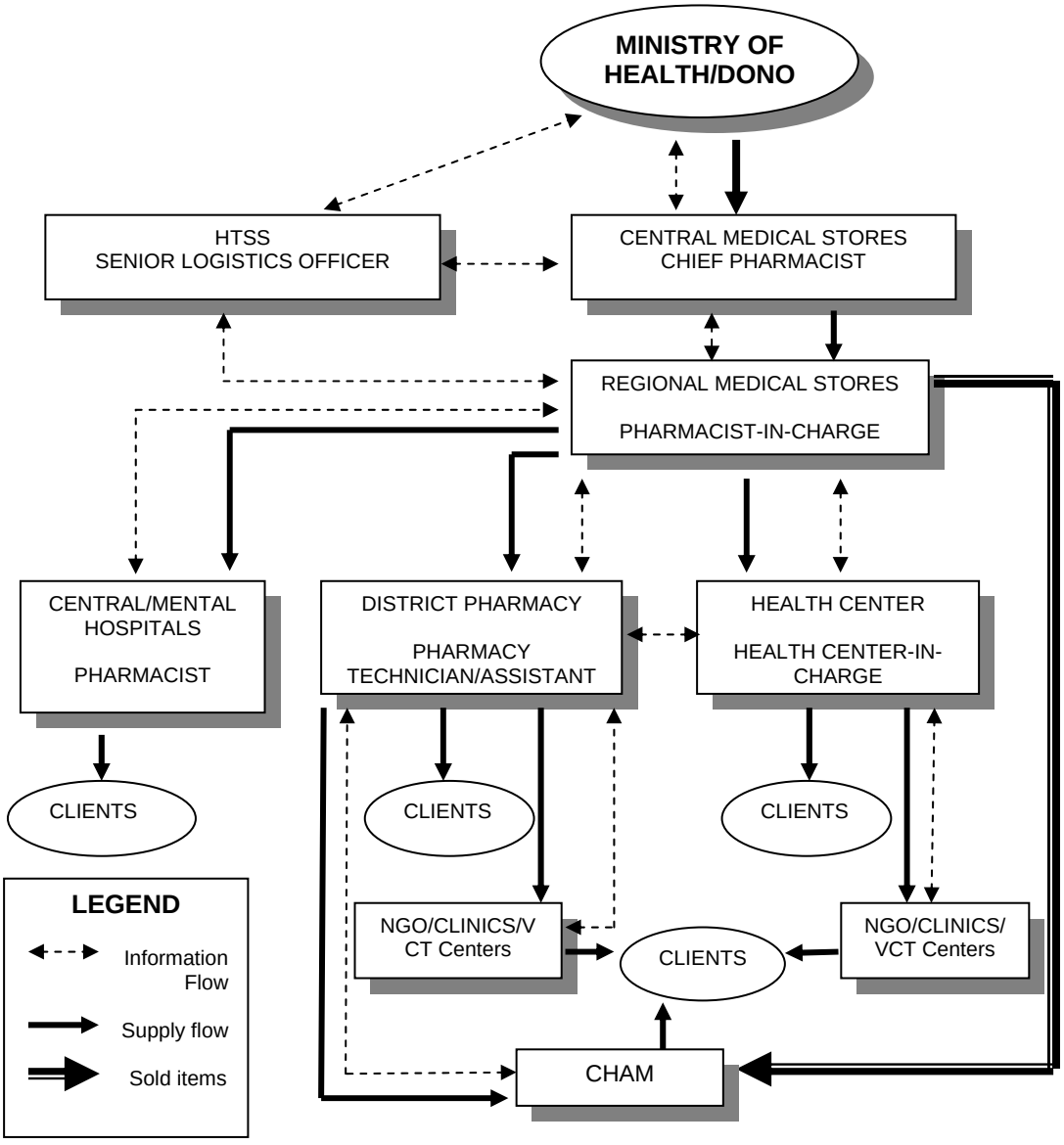
The public health sector system comprises three levels: the primary level (health centers, health posts, dispensaries, and rural or community hospitals); the secondary level (district and CHAM hospitals); and the tertiary level (central hospitals and one private hospital).

A major component of health sector reform is decentralization, which gives authority, including budget authority for the provision of health care, to the districts. In principle, RH and family planning as part of the EHP, have to be fully supported by the districts, although there may be issues in the practical implementation. To strengthen commodity security, decentralization provides opportunities to more fully involve districts in the supervision, monitoring, and training of health personnel in supply chain management. Increasingly, Malawi is looking to strengthen private-sector participation in health care, and a public–private partnership policy document is being developed. Cost recovery is not on the policy agenda for Malawi, and poverty levels would limit its potential to enhance sustainability. Malawi has signed and is committed to achieving the United Nations Millennium Declaration, including the reduction of child mortality and the improvement of maternal health.

SUPPLY CHAIN MANAGEMENT SYSTEM

Figure 1 illustrates the movement of health commodities from the major stores down to health facilities and movement of information from health facilities to upper levels. Both the Government of Malawi, through its MOH, and donors supply health commodities to Central Medical Stores. Central Medical Stores (which is more of an administrative office) immediately distributes health commodities to its three major depots, located in the three administrative regions, called regional medical stores (RMSs), who in turn distribute health commodities to health facilities within their respective regions. At the RMSs, health commodities are packed for each health center and district, central, and mental hospital. They are then sent directly to central hospital pharmacies, mental hospital pharmacies, district pharmacies, and health centers, while CHAM, voluntary counseling and testing centers, and NGO facilities collect their supplies from either the district pharmacy or health center in the areas where they operate. Contraceptives are also collected from the health centers by community-based distribution (CBD) supervisors and given to CBD agents during their monthly meetings or supervisory visits for distribution to clients.

Figure 1. Reciprocal Movement of Health Commodities and Information between Levels



KEY PARTICIPANTS AND ROLES

DELIVER provided long- and short-term technical assistance directly to the RHU before the system was integrated; later, technical assistance was provided to the rest of the MOH units through the Department of Health and Technical Support Services (HTSS). The resident logistics advisor and the LMIS associate and his assistant provided permanent assistance to the daily logistics functions and specific workplan activities. DELIVER/Washington provided technical assistance, support, and supervision to its Malawi staff, particularly in logistics, organizational development and training, and evaluation. Table 2 outlines key participants and their roles.

Table 2. Key Participants and Roles

Key Players	Roles
USAID	Financial support for strengthening logistics system for the MOH and procurement of contraceptives.
Ministry of Health	Implementation partner and host.
Banja La Mtsogolo	Provision of reproductive health services. Supported by Department for International Development (UK) (DFID) and Norway (now SWAp). An affiliate to Marie Stopes international.
Family Planning Association of Malawi (youth program)	Provides reproductive health services to the youth in the two target districts of Dowa and Lilongwe. Currently targeting prostitutes, as well.
Population Services International (social marketing program for condoms)	Provision of social marketed condoms, insecticide-treated bed nets, and water protection products.
Central Medical Stores/regional medical stores	Stores and distributes health commodities through its regional stores to the service delivery points (SDPs).
Health and Technical Support Services	Overarching department coordinating logistics activities for health commodities, including diagnostics and physical asset management.
Reproductive Health Unit	MOH department that manages the National Reproductive Health Program.
Management Sciences for Health/Malawi	Offers support in logistics and drug management in eight focus districts.
United Nations Population Fund (UNFPA)	Supports the reproductive health program and also supported the commodity security activities.
JHPIEGO	Supports the reproductive health program and currently working on repositioning of intrauterine devices in family planning service provision.
Department for International Development (United Kingdom)	Collaborating partner and major contributor to the SWAp. Supported procurement of STI drugs through the Sexual and Reproductive Health Program.

KEY CHALLENGES

The MOH has been fully committed to establishing an integrated health logistics system, especially for products in the Essential Health Package. The challenge has been to provide appropriate technical assistance to help achieve this goal without stretching technical assistance resources too thin while, at the same time, maintaining reproductive health products in full supply. Merging the various vertical supply chains into an integrated system carried the risk that some priority products could be in danger of not being kept in full supply. The major challenge was the integration of other health commodities into the LMIS, while keeping contraceptives available to clients. The opportunity that came with this, however, was that the long-term sustainability of such vertical efforts would be better ensured by the inclusion of their products into the mainstream logistics system.

Rapid growth in CPR and corresponding contraceptive commodity requirements remain key challenges. If CPR continues to rise rapidly, donors will need to keep pace with funding or the MOH will need to secure other funding to ensure contraceptive availability. The increase in prevalence along with the current population growth of almost 2 percent means significant increases in the quantities of commodities needed and financing levels for those commodities.

Significant policy changes are also affecting contraceptive security in Malawi. The most significant of these is the introduction of a SWAp mechanism for funding the health sector. Most donors are now contributing directly to the SWAp. In theory, contraceptives and other reproductive health commodities will continue to be funded since they are part of the agreed EHP that should be funded. In practice,

however, the transition period is likely to be uncertain as the new financing and procurement modalities are incorporated. In other countries that have introduced SWAp mechanisms, delays were experienced in contraceptive supply as the new modalities of procurement were worked out. Significantly, USAID, one of the major partners in contraceptive procurement, is not financing the SWAp directly, and its contribution to commodities needs to be accounted for separately. Malawi also faces other major challenges to ensuring contraceptive security, including lack of capacity for supply chain functions; hiring, training, and retention of staff at all levels; and an underdeveloped private sector.

A critical shortage of human resources at all levels has been a challenge. This shortage resulted from professionals leaving the civil service because of low remuneration and poor working conditions. The impact of HIV has also added to the burden. However, the government is currently working on several policies to address the impact of loss of human resources.

Other challenges included staff turnover and limited availability of human resources because there has been no continuity of service provision. In some cases, the constant changes in staff caused the need for continuous training. However, limited financial resources mean that new personnel do not always receive logistics trainings.

In addition, despite computerizing (automating) management of information at the district level, the central level (CMS and its regional stores) has remained manual; information electronically processed at the lower level is handled manually at the RMS level. SIGMED, the warehouse management system intended for use at this level, has remained nonfunctional, or in some cases underutilized, which has made it difficult for new personnel to link information from the lower to the central level.

GOALS AND OBJECTIVES

DELIVER OBJECTIVES

DELIVER;s goal was to improve the health status of Malawian families by increasing the use of improved health behaviors and services. The project's overall strategic objective is "improved availability of contraceptives and other essential health commodities at service delivery points." The essential nature of logistics in supporting other program investments in quality of care is well defined by the project's slogan, "No Product? No Program." DELIVER's primary focus in Malawi was to on improve the logistics of donor-supplied contraceptives, condoms, and STI drugs. Despite a broad product scope, a fundamental focus of DELIVER's technical assistance is to ensure contraceptive security, which means the continuous availability of quality contraceptives to all family planning clients in Malawi.

RELATIONSHIP TO USAID AND CLIENT OBJECTIVES

DELIVER's activities supported the USAID Strategic Objective 8, "increased use of improved health behaviors and services." DELIVER's activities directly supported the realization of the following Mission intermediate results:

- 8.1. Behavior change enabled.

  This included support to drug committees through provision of terms of reference and information, education, and communication (IEC) materials to ensure drug safety and continuous availability of health commodities.

- 8.2. Quality of health services improved.

  Through logistics system strengthening, availability of commodities was considered a high priority to ensure an improved health service through provision of quality contraceptives and other health commodities.

- 8.3. Access to services increased.

  This was achieved through ensuring continuous availability of key commodities such as contraceptives, STI drugs, and other essential commodities through proper product tracking and management of information systems.

- 8.4. Health sector capacity strengthened.

  Training was provided to various cadres in the health sector responsible for carrying out logistics activities at various levels of the supply chain.

DELIVER'S ROLE IN RELATION TO OTHER ORGANIZATIONS

DELIVER's technical assistance to the MOH was conducted in close collaboration with USAID and other donor-funded cooperating agencies, private voluntary organizations, and NGOs to ensure the greatest efficiency and leveraging of available resources. Moreover, this collaborative approach ensured the standardization of technical assistance at the national level and prevention of the duplication of interventions. Table 3 lists the cooperating donors and summarizes their activities.

Table 3. DELIVER's Collaboration with Donors and Organizations

Donors and Organizations	Roles and Implemented Activities		
JHPIEGO and AVSC (renamed EngenderHealth in 2001)	JHPIEGO, an affiliate of Johns Hopkins University, is helping to facilitate repositioning of intrauterine devices in selected SDPs on a pilot phase. Collaborated with DELIVER to provide information on access for the commodities and forecasting the requirements.		
World Bank, Population and Family Planning Project, and The Canadian International Development Agency	Supported introduction and standardization of the RHLMIS in the districts.	Provided training and supervision of project district staff in logistics.	Ensured participation of DELIVER resident advisor (RA) in project evaluation activities.
Centers for Disease Control and Prevention /Malawi			
DFID	Provided joint external technical assistance (TA).	DELIVER regional logistics advisor provided DFID with timely logistics information through support to RHU.	Supported CMS in its reorganization efforts and supported RHU in contraceptive and STI drugs purchases.
MEASURE II/ Evaluation	Contributed logistics expertise to development of National HIV Evaluation Plan to ensure inclusion of logistics indicators.	Participated in STI Prevention and Treatment Task Force (included condom distribution) to recommend monitoring and evaluation [M&E] indicators for condom and STI drug security and effective donor collaboration.	Participated in Consensus Building Workshop to develop final M&E plan. Contributed to development of an MIS for the National AIDS Control Program.
UNFPA/Malawi	Co-financed the contraceptive security activities: advocacy workshop and RHCS assessment to develop the CS strategy.	Collaborated with DELIVER and provided financial support for logistics trainings for health center personnel involved in drug management for the MOH, including financial support for conducting the TOT for the Malawi Health Commodities Logistics Management System.	
Management Sciences for Health/ Malawi	Collaborated in the area of logistics management.	Procured computers for the eight focus district pharmacies to provide essential logistics data and facilitate drug requisition to medical stores.	Provided on-the-job logistics training to health center personnel in their focus districts. Supported participation of RMS personnel and zonal officers to attend logistics quarterly meeting.
European Union	Provided support to the MOH through the Health Sector Reform and Decentralization Project.	Funded several Transaid consultancies to implement a health transport management system.	

SUMMARY OF DELIVER FUNDING AND STAFFING

SUMMARY OF DELIVER FUNDING

The total DELIVER funding obligated to the six-year project is U.S.$4,028,385.

STAFFING

The Malawi field office has six staff: resident logistics advisor, management information system (MIS) associate, assistant LMIS associate, administrative assistant, and two drivers.

The resident logistics advisor is responsible for the formulation and implementation of logistics strategies for contraceptives, STI drugs, and all drugs listed in the essential health package. The advisor gives technical assistance to the MOH and other cooperating partners.

The management information system (MIS) associate collects, compiles, and collates essential logistics data to report on the couple-years of protection achieved through the Malawi Family Planning Program for submission to the USAID Mission, MOH, and other partners.

The assistant LMIS associate collects and analyzes logistics data from service delivery points for monitoring procurement plans and forecasting and for logistics surveys conducted by the MOH. The assistant also supports the operation of the Supply Chain Manager (SCM) software at the districts (setting up, training users, and troubleshooting).

PROGRAM RESULTS

The primary program results were improved availability of contraceptives and information. The major elements included results in—

Element I: improved logistics system

Element II: improved human capacity in logistics

Element III: improved resource mobilization for commodity security

Element IV: improved adoption of advances in logistics

Element V: estimation of USAID contraceptive needs.

ELEMENT I: IMPROVED LOGISTICS SYSTEM

This element refers to improving infrastructure, distribution, forecasting, procurement, management information, and monitoring and evaluation. Special emphasis was given to improving forecasting and procurement planning through the use of logistics data and PipeLine procurement planning software, pipeline monitoring, and strengthening donor coordination through the logistics subcommittee of the Drugs and Medical Supplies Technical Working Group.

DELIVER provided technical assistance to address the MOH's need for an effective LMIS. DELIVER actively coordinated efforts with MSH/Malawi to assist with district and health center improvements in the EHP supply chain and information system within the MSH's focus districts.

DELIVER supported the RHU in implementing the CDLMIS and in strengthening the RHU's central-level logistics functions. The CDLMIS significantly improved the reliability of contraceptive supplies at health facilities and enhanced the RHU's ability to track information on contraceptive use and distribution in the country.

Encouraged by the success of the CDLMIS, the MOH, through its RHU, decided to integrate STI drugs procured under its Sexual and Reproductive Health Program (SRHP) into the CDLMIS. This integrated information system, known as the Reproductive Health Logistics Management Information System, was seen as the next phase in the development of an eventual Malawi Health Commodities Logistics Management System (MHCLMS). The MHCLMS was to track all health supplies (as provided in the EHP drug list) from RMSs to health facilities and to ensure availability of more than 80 essential products at the health center level. The recommendation to develop the MHCLMS followed a work process analysis of the logistics system, which was conducted in 2002, using a process mapping methodology. This methodology focused on getting input from all levels of the organizational system to achieve exponential (as opposed to incremental) improvements. The activity identified tasks in the system that were redundant, non-value added, and not required, and made recommendations for a more streamlined and integrated supply chain. The analysis also identified potential cost and time savings expected from the future streamlined logistics system.

Following the recommendation to develop the MHCLMS, a new training program based on a revised set of standard operating procedures (SOPs) that guide the improved system was designed and provided for all district pharmacy technicians and assistants in September 2003. Refresher training was conducted in February and March 2005 to equip pharmacy technicians, assistants, and stores personnel from the RMS with the knowledge and skills needed for the revised SOPs. The training included some aspects of the

computerization of some of the logistics functions at the district level. In addition to the recommendation to implement the MHCLMS, in September 2003 the CMS started delivering health commodities directly to health centers in the southern region through RMS South after it was discovered that districts were not able to deliver all essential health commodities to their respective health centers. Each district pharmacist was to be responsible for approving the facilities order and sending aggregated orders to the RMS. From the lessons learned from RMS South, the remaining regions adopted the system in January 2004. Meanwhile, the three RMSs are delivering directly to health centers on the basis of the information derived from facility reports and aggregated at the district pharmacy level by pharmacy technicians/assistants using SCM software, a software tool that provides logistics management information to distribution system managers.

The following intermediate results have been achieved:

- The HTSS and the CMS engaged in collaborative decision making to perform accurate quantification and forecasting of future needs.
- CMS developed the capability to receive orders in a timely way to facilitate rapid packing and dispatch of filled orders to service delivery points.
- Drug committees were empowered through provision of IEC materials that detailed their terms of reference to facilitate their proper functioning and messages that discouraged drug pilferage as well as details of the responsibilities of communities to ensure drug security and continuous availability.
- The Logistics Unit was created in the HTSS to facilitate smooth functioning of the MHCLMS in supporting the implementation of the EHP, following the success of the RHLMIS at the RHU.
- The availability of contraceptives at the SDPs was improved.

To measure these results, DELIVER developed one indicator for each of the three most important contraceptive products in use in Malawi: condoms, Depo-Provera, and Lo-Femenal.

ELEMENT II: IMPROVED HUMAN CAPACITY IN LOGISTICS

Organizational performance improvement for the implementation of the logistics systems requires adequate human resources, systems, staff training, and management and supervision, as well as the ability to assess performance and adopt improvement mechanisms. DELIVER strengthened the foundation of trained staff established under FPLM III activities to strengthen the district-level health management teams (DHMTs). The documentation of the RHLMIS in procedures manuals, curriculum development, and TOT were all necessary performance improvement interventions to ensure that the people in the system are capable of running it. Improved management and supervision skills of the DHMTs further contributed to the strengthening of the RHLMIS. Similar approaches were used when the system was integrated: the SOPs were revised in a participatory approach to ensure input from all the key personnel in the system; materials and manuals were developed for most of the interventions; and trainings were conducted for health workers at different levels of the supply chain.

The following intermediate results have been achieved:

- Trained eight MOH key staff at DELIVER's Supply Chain Logistics course.
- Facilitated a Supply Chain Logistics course in Malawi for RMS staff, district pharmacy technicians, and other supervisory staff from various programs, including some NGOs, attended by 19 staff.
- Conducted an LMIS TOT at which 10 officers were accredited with TOT for the MHCLMS as well as an LMIS training for SDP staff attended by 362 health workers.

- Conducted a refresher LMIS training for district and SDP staff that trained a total of 77 MOH and CHAM staff.
- Conducted SCM software trainings to facilitate utilization of the software at the district level for 60 pharmacy technicians.
- Completed the rollout of the RHLMIS and later integrated it to create the MHCLMS.

ELEMENT III: IMPROVED RESOURCE MOBILIZATION FOR COMMODITY SECURITY

Commodity security entails being able to assess national commodity needs and plan to meet those needs. Quality logistics information is critical to accurate forecasting and short-, intermediate-, and long-range procurement and financial planning to ensure that clients always have a quality range of appropriate commodities from which to choose. Commodity security is ensured by strengthening policy commitment, donor coordination, local leadership, and strategically implementing health sector reform.

To ensure RHCS for the period of 2006–2010 and, consequently, ensure the success of the reproductive health program in Malawi, the MOH, with support from DELIVER, developed the RHCS Strategy 2006–2010 as an addendum or substrategy to the National Reproductive Health Strategy 2006–2010. The substrategy aims to support the National Reproductive Health Strategy by ensuring a continuous and reliable supply of RH commodities and, specifically, to ensure RH commodity security for all Malawians. The substrategy was developed with input from all stakeholders involved in the provision of RH services and commodities under the leadership of the HTSS.

The substrategy outlined the priority strategies and activities needed to assure a reliable and secure supply of RH commodities. The primary focus is on the supply chain, but it covers areas such as finance and policies that complement the national strategy. It provides policymakers and program managers with guidance as to the areas that need strengthening and the approaches that should be taken. Actual implementation of this strategy will be dependent on the development of operational plans that will include specific indicators and targets.

The following intermediate results have been achieved:

- Conducted RHCS awareness raising workshop for major stakeholders.
- Implemented RHCS assessment.
- Conducted RHCS strategic planning workshop.
- Developed the National Contraceptive Security Strategic Plan.
- Improved short- and medium-term contraceptive forecasts and identified the financial resources to meet these requirements.
- Improved the management of contraceptive procurement through proper forecasting and pipeline monitoring.
- Improved the MOH’s ability to collect, compile, and analyze dispensed-to-users data for contraceptives and other vital health products.
- Streamlined supply management and reporting procedures at the district and health facility level.
- Improved access and distribution of contraceptives to the NGOs, particularly those that are not health oriented.

- Raised the visibility of logistics within the MOH through creation of the Logistics Unit and placement of staff who were directly supported by the project in technical terms.
- Provided quality assurance, monitoring, and management through conducting commodity availability surveys.
- Conducted a process mapping exercise to eliminate non-value adding activities at the various levels in the supply chain. This resulted in one level being removed and the eventual implementation of the direct delivery system.

ELEMENT IV: IMPROVED ADOPTION OF ADVANCES IN LOGISTICS

The computerization process of the district pharmacies began in April 2004 when the MOH, with support from DELIVER, conducted training for pharmacy personnel and other administrative staff from the eight MSH focus districts and three priority districts that focused on the use of a new version of DELIVER's SCM. However, after some time, some problems became apparent in the software, especially in relation to its applicability. This version of SCM lacked some features that could enable aggregated data for multiple districts. The software has since been upgraded to version 3.7 and is able to function as a multitier data entry and reporting system. The computerization of the district pharmacies has since rolled out to the rest of the country since June 2005, and SCM software is currently installed in 26 districts, except Likoma, where no one is available to use the software.

The current version of SCM is a step toward creation of the national stock status database (NSSD) because of its ability to group and reconcile data from various districts.. However, the software could not be linked to the warehouse management system at the central and RMS level because of some existing problems regarding limited utilization of the SIGMED software at the CMS and RMSs.

The following intermediate results have been achieved:

- provision of computers and software to 17 district pharmacies and three computers previously committed for central hospitals
- fully functional computerized processing of MOH logistics data using SCM software from 400+ SDPs by 26 districts for purposes of electronic ordering of contraceptives, STI products, EHP drugs, and other products from RMSs
- providing the HTSS with an achievable plan to introduce the NSSD, which has the capability of computerized monitoring of consumption, order fill rates, and stock imbalances
- enhanced accountability of the logistics supply system through computerized product tracking capability and transparency at the district level.

ELEMENT V: ESTIMATION OF USAID CONTRACEPTIVE NEEDS

Estimation of USAID contraceptive needs entails preparation of the contraceptive procurement table (CPTs) and ensuring their reliability and validity. DELIVER worked closely with the members of the Logistics Sub-committee and the RHU to ensure accurate forecasts of contraceptives, STI drugs, and preparation of the CPTs, and to foster donor coordination for a continuous full supply of contraceptives and STI drugs.

Although the RHU shifted its supply management responsibilities to other parts of the MOH, it retained the responsibility for estimating demand for its products and identifying the financial resources needed to meet that demand. To ensure that RH products were available in the medium term as well as the long term, DELIVER assisted the RHU in developing a five-year forecast of demand for contraceptives by using demographic and logistics data, estimating the commodity requirements needed for those five years,

and identifying the resources to meet those requirements. These projections were updated every year from the prior year's logistics data, and they were the basis for the annual discussion of contraceptive needs between the RHU and other stakeholders. This rolling five-year plan preceded the CPTs as the basis for discussing contraceptive requirements; the CPTs become a secondary exercise that serves USAID's needs.

The process continued, even after DELIVER moved to the HTSS in October 2003, by collaborating with the department and by using the same logistics data collected through LMIS reports. The results of the forecasts and procurement schedules were shared with stakeholders and donors through the Logistics Coordinating Committee and stakeholders meetings. Donor support is pledged at these meetings. Currently, USAID and the Department for International Development (UK) (DFID) (the latter now channels its support through the SWAp mechanism) meet all the contraceptive requirements for the MOH and the NGOs that provide family planning services.

Preparation of the CPTs gave USAID a way to ensure that the estimates were reasonable, and they helped USAID/Washington to better manage its long-term procurement contracts. Table 4 illustrates USAID financing for a five-year period.

Table 4. USAID Commodity Financing (2002–2006)

Year	2002	2003	2004	2005	2006
USAID commodity financing	$181,862.10	$802,203.70	$822,408.80	$569,685.80	$1,966,104.00

The following intermediate results have been achieved:

- Facilitated forecasting for selected EHP products (including contraceptives and STI drugs) at a workshop.
- Completed CPTs and STI and selected EHP quantifications.

LESSONS LEARNED AND FUTURE DIRECTIONS

LESSONS LEARNED

Of the many lessons learned throughout the life of the project, the most important ones are presented here:

- Coordination among the various stakeholders has been crucial to ensuring that efforts are not duplicated—but complemented.
- Communication formed an integral part of the logistics system among the various stakeholders operating at different levels of the system. A breakdown in communication meant a breakdown in the logistics system as well.
- Constant supervision was a critical part of ensuring efficient operation of the logistics system. Without constant supervision, the health workers tended to ignore the SOPs, which negatively affected the implementation of the activities that were designed to strengthen the logistics system.
- Attitudes of the health workers also proved to be a challenge, especially any change in the system. It takes time for people to appreciate and adjust to change.
- Staff turnover has resulted in the project being required to provide continuous training.
- There were not enough staff, in some instances, within the MOH when deployment of staff to various logistics responsibilities became a problem. At the central level, there were not enough counterparts with whom to work, which resulted in an over-reliance on technical assistance; this raised issues about the sustainability of the logistics system.
- Challenges were also associated with health reforms, which affected product availability in some instances, especially reproductive health items such as STI drugs. This resulted from the introduction of the SWAp mechanism into the MOH. Procurement of drugs and other medical supplies, previously procured directly by the SRHP program, now had to be procured through SWAp, which proved to be a lengthy process.
- Procurement decisions for other essential commodities, excluding contraceptives and STI drugs, which did not take into account appropriate information, negatively affected the logistics system after integration when it resulted in constant stockouts for essential commodities. By extension, this also resulted in medical stores having to ration commodities, thereby affecting service delivery at the facility level.

FUTURE DIRECTIONS

The long-term vision for Malawi is to use a robust and transparent computerized system to continuously supply 100 percent of the Malawian people's need for high-quality health commodities (including contraceptives, STI products, antiretrovirals, HIV test kits, EHP drugs, laboratory reagents, equipment, and other products). This system will need to accurately forecast public-sector health commodity needs to enable procuring, scheduling, and receiving shipments in a reasonable time and to manage the timely dispatch of commodities to all service delivery points. As a result, the system will ensure the provision of a full supply of commodities to the community while avoiding stock imbalances including stockouts,

oversupply, and product expirations. The following specific interventions are proposed to ensure an efficient logistics system in the future:

- Appropriate and adequate personnel at various levels should be allocated to the various functions of the supply chain.
- Appropriate planning and sequencing of events that would ensure continuous availability of commodities (following the logistics cycle) should take place.
- DHMTs and zonal officers should be adequately involved in ensuring the sustainability of the system by providing constant supervision for the various functions in the supply chain.
- Necessary human, financial, and material resources should be made available across the system to ensure its effectiveness and success.
- The operating capacity of CMS and its RMSs should be strengthened by ensuring that they have the technology and personnel they need to manage the various functions.
- The procurement system for the MOH should be strengthened to enable the ministry to take a long-term approach versus the short-term view that has been responsible for most of the problems in the logistics system.

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APPENDIX 1

CS BRIEF

MALAWI 2006

Contraceptive Security Brief	
Population	12.3 million (Population Data Sheet [PRB 2005])
Population growth rate	3.2% (Population Data Sheet [PRB 2005])
Women of reproductive age	43.6 % (PRB 2005)
Total fertility rate	6.0 (NSO 2004)
CPR (modern methods) Modern methods/married women All methods/married women Public sector Private sector Other	 28.1% (NSO 2004) 33% (NSO 2004) 67.0% (NSO 2004) 4.0 % (NSO 2004) 30.0% (NSO 2004)
HIV/AIDS prevalence rate	12.7 (NSO 2004)
Health regions, districts, and SDPs providing RH/FP services (their numbers)	Regions: 3 Districts: 26
Forecasting	

Current method mix and projected trend *(for the whole country [NSO 2004])*	Injectables:	64%
	Female sterilization:	20.6%
	Pills:	7.1%
	Condoms:	6.4%
	Intrauterine devices:	0.4%
	Norplant:	1.8%
Presentation and use of CPTs in management decision making	CPTs are regularly completed for the MOH; they include contraceptives, STI drugs, and most recently, essential drugs. The results of the CPTs are presented before the donor coordination meeting for decision making. With the basket funding still not functioning, USAID provided emergency supply of condoms and Depo-Provera, financing both products in 2005.	
Assumptions related to data used in the CPTs *(approach used)*	Malawi has an effective LMIS. Therefore, dispensed-to-user data have been used for forecasting and procurement planning purposes. Data on stock on hand, losses, and adjustments come from LMIS forms such as LMIS-01A for health centers, LMIS-01B for district hospitals, and stockcards. Demographic projections are used to validate the logistics data.	
Sources and accuracy of data used in forecasting *(data quality)*	The LMIS provides the data sources used in forecasting; the information is entered into Supply Chain Manager at the district. The reporting rate is above 70 percent in most cases, with some districts achieving 100 percent.	
Role of technical assistance	DELIVER provides technical assistance in maintaining a functional logistics system, forecasting and procurement planning, and implementing and monitoring the Supply Chain Manager tool.	
Procurement		
Existence and role of the Procurement Unit	Central Medical Stores plays a role in the MOH Procurement Unit. It is in charge of procuring essential drugs for the whole country. However, for contraceptives and STI commodities, procurement is done through the donor mechanism. Procurement of RH drugs will soon be done through basket funding.	

Stock status analysis over a one-year period (overstocks, stockouts, and consistency of procurement plans)	As determined from information currently available from the LIAT 2006, overall the percentage of facilities that experienced stockouts for contraceptives during the last 6 months declined in 2006. The country's stockout rate is at 5 percent for the major contraceptives (Depo-Provera, condoms, and Lo-Femenal) due to either nonreporting, rationing (whereby facilities are given only a one-month supply that stocks out before another delivery occurs), or delays in the delivery of the consignments.
Contraceptive supplier situation (percentage of commodities provided by supplier)	Prior to 2005, USAID and DFID were the major donors of contraceptives. Since June 2005, DFID contributed directly to the basket funding. Unfortunately, the basket funding is still not functioning. Therefore, USAID stepped in to fill the gap. Following are the contributions of USAID and DFID from 2002–2006. All dollar amounts are in U.S. dollars. USAID 2002 $181,862.10 2003 $802,203.70 2004 $822,408.80 2005 $579,685.80 2006 $1,966,104.00 DFID 2002 $1,680,385.28 2003 $1,725,783.80 2004 $1,781,364.92 2005 $1,810,440.12 2006 Basket funding (not established)
Historical, current, and future role of USAID as a contraceptive donor	USAID pledges to continue financing contraceptives. Currently, commitments have been made provisionally up to 2008, following the forecasting of 2006.

Financing	
Commodity funding mechanism (i.e., basket funding, cost recovery, local public funds, etc.)	The country has two funding mechanisms: • Basket funding. It has already affected the contraceptive supply situation for Depo-Provera and condoms because planned shipments were not delivered. • USAID direct funding.
Current and future donor contribution in commodity financing plan over the next five years.	No commitments have been made beyond 2006 for other donors. Usually done every year.
USAID/Mission intervention strategies (strategic objectives and plan for contraceptive security)	The Malawi Mission's strategic objective SO 8 is "increased use of improved health behaviors and services." The Mission does not have a written plan for contraceptive security.
Supply Systems	
Length of the pipeline	The in-country pipeline has three levels: central, regional, and then district and health centers, both centers are at the SDP level.
Major institutions involved in RH/family planning activities	JHPIEGO, World Bank (SWAp), UNICEF, DFID (SWAp), UNFPA/ Malawi, European Union
LMIS status (level of efficiency)	The MOH has developed and implemented LMIS forms at all levels. Since 2005, all the districts have adopted the computerized system, but there is still an issue with poor quality data due to the high staff turnover, few supervision visits, and lack of training at SDP level.
Commodity availability at SDPs	Overall, the percentage of facilities that experienced stockouts for contraceptives during the last six months decreased to less than 10 percent in 2006. The only exception is Ovrette, which expired.

Major Issues

Rapid growth in CPR and corresponding contraceptive commodity requirements remain major issues. If CPR continues to rise rapidly, donors will need to keep pace with funding, or the MOH will need to secure other funding to ensure contraceptive availability. The increase in prevalence, with the current population growth of almost 2 percent, means significant increases will be needed for the quantities of commodities and financing levels for those commodities.

Significant policy changes are also impacting contraceptive security in Malawi. The most significant change is the introduction of a SWAp mechanism for funding the health sector. Most donors are now contributing directly to the SWAp. In theory, contraceptives and other reproductive health commodities will continue to be funded because they are part of the agreed-upon EHP that should be funded; in practice, the transition period is likely to be uncertain as new financing and procurement modalities are incorporated. In other countries that have introduced SWAp mechanisms, delays were experienced in contraceptive supply as the new modalities of procurement were worked out. Significantly, USAID, one of the major partners in contraceptive procurement, is not financing the SWAp directly, and its contribution to commodities needs to be accounted for separately.

A critical shortage of human resources at all levels and staff turnover remain issues. The impact of HIV has added to the burden.

In addition, despite computerizing (automating) management of information at the district level, the central level (CMS and its regional stores) has remained manual—information electronically processed at the lower level is handled manually at the RMS level. SIGMED, the warehouse management system intended for use at this level is still not functioning, or in some cases is underutilized, which has made it difficult to link electronic information from the lower to the central level.

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

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