



USAID | DELIVER PROJECT

FROM THE AMERICAN PEOPLE

TASK ORDER I SEMI-ANNUAL REPORT

OCTOBER 2008 THROUGH MARCH 2009



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USAID | DELIVER PROJECT, Task Order 1

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ACRONYMS

AI	avian influenza (also called bird flu)
AIDS	acquired immunodeficiency syndrome
AIIS	Avian Influenza International Stockpile
AMDS	AIDS Medicine and Diagnostic Service
APHA	American Public Health Association
ARV	antiretroviral
CAR	Countries-at-Risk
CBD	community-based distribution
CCB	Change Control Board
CMS	Central Medical Stores
COC	combined oral contraceptive
CPR	contraceptive prevalence rate
CPT	contraceptive procurement tables
CS	contraceptive security
CSCMP	Council of Supply Chain Management Professionals
CSL	Commodities Security and Logistics Division (USAID)
DFID	British Department for International Development
DGFP	Directorate General of Family Planning
DR	Dominican Republic
DTTU	Delivery Team Topping Up
EHCMIS	Ethiopian Health Commodity Management Information System
ESAMI	Eastern and Southern African Management Institute
FHD	Family Health Division
FHI	Family Health International
FMOH	Federal Ministry of Health (Nigeria, Ethiopia)
FP/RH	family planning/reproductive health
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	human immunodeficiency virus

HPI	Health Policy Initiative
IAPHL	International Association of Public Health Logisticians
IBP	Implementing Best Practices
IPPF	International Planned Parenthood Federation
IUD	intrauterine device
JSI	John Snow, Inc.
KfW	<i>Kreditanstalt für Wiederaufbau</i> (German funding agency for international development)
LAC	Latin America and the Caribbean
LIAT	Logistics Indicators Assessment Tool
LMIS	logistics management information system
LMS	Leadership, Management, and Sustainability Program
LMU	logistics management unit
LSAT	Logistics System Assessment Tool
LSO	logistics service officer
MAQ	Maximizing Access and Quality
MDGs	Millennium Development Goals
MIS	management information system
MIT	Massachusetts Institute of Technology
MOH	Ministry of Health
MOHFW	Ministry of Health and Family Welfare (Bangladesh)
MSA	market segmentation analysis
NGO	nongovernmental organization
N'TLP	National TB and Leprosy Program
OAA	Office of Acquisition and Assistance
OHA	USAID Office of HIV/AIDS
OJT	on-the-job training
PAI	Population Action International
PEPFAR	President's Emergency Plan for AIDS Relief
PFSA	Pharmaceutical Supplies Agency
PPMR	Procurement Planning and Monitoring Report
PRISMA	<i>Proyectos en Informática Salud Medicina y Agricultura</i> (Peru)
PRMA	Project Resource Mobilization Awareness

PSM	Procurement and Supply Management
RH	reproductive health
RHB	Regional Health Bureau
RHCS	Reproductive Health Commodity Security
RHSC	Reproductive Health Supplies Coalition
RMA	Project Resource Mobilization and Awareness
SCM	supply chain management
SCMS	Supply Chain Management Systems project
SDP	service delivery point
SNNPR	Southern Nations, Nationalities, and People's Region (Ethiopia)
SPS	Strengthening Pharmaceutical Systems
STI	sexually transmitted infection
STTA	short-term technical assistance
SWAp	sector wide approach
TB	tuberculosis
TACMIL	Technical Assistance for Capacity Building in Midwifery, Information and Logistics project
TO1	Task Order 1
UNEPI	Uganda Expanded Programme on Immunization
UNFPA	United Nations Population Fund
USAID	U.S. Agency for International Development
VLDP	Virtual Leadership Development Program
WHO	World Health Organization

EXECUTIVE SUMMARY

The period for this semi-annual report—October 1, 2008, to March 31, 2009—sees continuing progress toward strengthening contraceptive security (CS) both in the USAID | DELIVER PROJECT—presence countries and globally. This report highlights a number of successes, focusing particular attention on those that offer lessons for other countries. We also present data on key project performance indicators both for in-country CS and providing commodities to USAID programs.

The project's presence countries strive to implement best practices to strengthen supply chains. Bangladesh continues to expand its web-based logistics management information system (LMIS) down to the upazila (district) level, ensuring timely data and a highly visible supply chain. In Ethiopia, the project continues to roll-out a facility-based inventory management and LMIS, at hospitals and larger health centers, as part of its support to the national logistics master plan. Both systems were developed in-country using local resources. To better reach the last mile, the project continues to decentralize its activities. Ethiopia and Zambia increased their regional activities and, in Ethiopia, the presence of regional advisors enable logistics data to be used for national forecasting for the first time—a significant step toward ensuring accurate forecasting. This decentralized approach improves monitoring and supervision and can significantly strengthen product availability.

Reporting rates continue to remain high in the USAID | DELIVER PROJECT countries, nearly 90 percent or higher in the majority of countries, with significant improvement in Zambia, Nigeria, and the Dominican Republic. At the service delivery point (SDP)-level, stockouts for the three most popular contraceptives—oral contraceptives, injectables, and male condoms—continue to remain at levels of approximately 10 percent or lower in most of the project's presence countries. However, product stockouts in Malawi and Nigeria continue to cause concern. Malawi is still experiencing delays in financial resources for procurement, as well as for the timely execution of those procurements. Concerns have been noted that some of the high stockout rates for condoms and oral pills are because facilities are non-ordering, ostensibly due to low demand for those methods; this creates a challenging circle, where non-ordering because of low demand leads to stockouts, further suppressing demand for those methods. The project will work to identify and address this issue. In Nigeria, the project has a limited mandate at the federal level, where procurement decisions are made. At the central level, for 13 project countries regularly reporting, seven experienced either no stockouts or one stockout over the specified period with, in each case, the stockout being for one month or less. For those experiencing more serious stockouts, the reasons were often related to delays in releasing funding or procurement.

Rwanda has seen recent gains in reducing unmet need for family planning, with contraceptive use increasing almost threefold in just three years. This creates an increase in funding requirements; here, the project has advocated successfully for diversifying the donor base and increasing funding levels by existing donors. The government of Rwanda has started contributing to contraceptive procurement, and the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) also agreed to fund contraceptives (and not just condoms)—a significant breakthrough globally for contraceptive security and one that the project has long advocated for and supported. The project

rapidly spread the word on Rwanda's example; Ghana and Zambia included condoms and all contraceptives, respectively, in their Round 8 GFATM proposals.

The project continues to strengthen relationships with global partners for CS and to influence policy at the global level. The project is the main contributor to the Procurement Planning and Monitoring Report (PPMR), which provides central-level availability data to the Reproductive Health Supplies Coalition's (RHSC) Countries-at-Risk (CAR) group, and highlighting impending supply issues. Non-project countries also contribute, and the PPMR played a significant role in highlighting stockouts in Kenya, leading to emergency donations from the United Nations Population Fund (UNFPA). The project also developed an updated global gap analysis for contraceptives, *Contraceptive Projections and the Donor Gap: Meeting the Challenge*, published under the RHSC banner—a key advocacy tool for the future. Sector wide approaches (SWAp) for health programs and their oft-associated basket financing mechanism present huge challenges for financing and procurement.

To help guide countries, the project produced a primer, *Ensuring Reproductive Health Commodity Security within a Sector Wide Approach*, that focuses on how different funding mechanisms can be used, in combination, to improve reproductive health contraceptive security (RHCS) and how the SWAp provides both risks and opportunities for CS. The findings and considerations were presented at the Maximizing Access and Quality (MAQ) Mini-University; they have been used to highlight country challenges and opportunities with stakeholders, including the RHSC and reproductive aid.

The implementation of the new management information system (MIS) continues and the system has processed more than 750 orders. Improvements continue as we respond to requests for changes, with the completion of the date alignment project as a highlight. Also, a Task Order 1 specific training was held for USAID and project staff.

The USAID | DELIVER PROJECT continues to emphasize partnerships with local organizations and the use of local capacity. Training efforts continue in project countries—more than 7,500 in-country staff were trained, mainly Ministry of Health personnel. There was significant progress in the partnership with a local training institution, the Eastern and Southern African Management Institute (ESAMI), based in Tanzania. ESAMI staff were trained as facilitators for two project training courses; they organized and led the “Overview for Supply Chain Management” course in Tanzania with 34 participants from 13 countries. In Latin America, our local partner, *Proyectos en Informática Salud Medicina y Agricultura* (PRISMA), began planning for three courses—the “Overview,” as well as “Quantification and Commodity Security” modules. Meanwhile, the project completed and piloted the latest training module, “Monitoring and Evaluation.”

Efforts continue to extend the project's work in family planning into other commodity areas—leading from family planning. The successful Delivery Team Topping Up (DTTU) system in Zimbabwe, originally for contraceptives, now includes HIV supplies, and it is being extended again, this time for tuberculosis (TB) supplies. The project's successful approach to forecasting and quantification—data driven forecasting linked to procurement planning and involving multiple partners—was used again in Malawi to forecast over 100 essential medicines across several programs, including family planning, TB, and HIV and AIDS; and, in Rwanda, for maternal and child health supplies.

The number of visits to the project website continued to increase—up 30 percent over the previous year, with the number of downloads and print copy orders also increasing significantly. In addition, the project completed or updated 31 publications during this reporting period.

A number of technical and operational challenges will need to be addressed in the next project period. As countries increasingly shift toward funding their contraceptives from their own internally generated budget revenues, the global economic downturn poses a risk that budget commitments will be underfunded. Continued challenges with procurement in several countries also pose a risk for countries using World Bank and other sector wide basket funds to purchase commodities. Given the wider security concerns, operational challenges include the opening of our new Pakistan country office; and managing the transition in Uganda and Bangladesh to new funding. The expanded and diversified mandates in Paraguay, Nigeria, and Zimbabwe will also pose management challenges, while the lack of funding in Liberia is worrisome.

TASK ORDER I

SEMI-ANNUAL REPORT

The USAID | DELIVER PROJECT continues to be effective and responsive in its field and core-funded activities during the third semi-annual reporting period—October 1, 2008, to March 31, 2009. The project has made substantial progress in improving product availability through a combination of home office-based and field activities, many mentioned in this report.

This report highlights progress made to meet project objectives. First, we give examples of how we have improved and strengthened in-country supply systems in ten project countries. We then provide a summary of reporting and stockout rates at central and service delivery points (SDPs). We provide two examples of country-level improvements in contraceptive security (CS), followed by examples of advocacy and collaboration with global and regional partners for CS. We describe the project's work in addressing our Objective 3 mandate of improving USAID's provision of commodities. This includes supporting the supply operations system, using the new MIS, and providing direct procurement services. We report on progress in implementing the *New Business Model* by highlighting core- and field-funded work on innovation and best practices, partnering with local organizations and strengthening local capacity, and disseminating best practices. Finally, we summarize some of the challenges experienced in the last six months and conclude with key issues we expect to address in the coming six months.

IMPROVE AND STRENGTHEN IN-COUNTRY SUPPLY SYSTEMS

COUNTRY EXAMPLES

Web-based Technology Provides Data for Decision Making and Improves Product Availability in Bangladesh

The availability of timely logistics data on the stock situation at all levels of the supply chain is crucial to improving product availability and avoiding stockouts. Bangladesh has been making strides in the use of data for decision making and increasing the visibility of logistics data by introducing a web-based LMIS. This system was developed with project support by the Directorate General of Family Planning (DGFP), Ministry of Health and Family Welfare in Bangladesh. The more than 25,000 SDPs send printed forms containing information on their stock situation and their consumption to their respective upazila (subdistrict) family planning offices. The 489 upazilas compile the data, manually create a new report, and send printed copies of this report to their respective regional warehouses. The 21 regional warehouses enter the compiled information in the web-based LMIS, including their stock/reporting data. The DGFP MIS unit, based in Dhaka, downloads the data from the LMIS and prepares the national LMIS report. These data are available to program managers, policymakers, and partners to help monitor stock status and system performance, as well as determine reorder quantities. When developing the system, there was an emphasis on sustainability. Therefore, the system was purposefully designed for ease of use by regional warehouse staff, with considerable emphasis placed on training DGFP staff.

The USAID | DELIVER PROJECT is currently supporting the DGFP's efforts to extend the web-based portion of the system down to the upazila level. Currently, 60 upazilas operate a new automated LMIS (UMIS) system with 112 upazila staff trained in how to operate the system. The DGFP is committed to providing computers to all the upazilas as part of this program (already about 60 percent have received computers). The upazilas take the paper reports from SDPs, enter the data, and the system automatically generates LMIS reports and supply plans. After the roll-out to the remaining upazilas is completed, the system will be connected to the web-based LMIS system.

Decentralizing to the Last Mile in Ethiopia, Zambia, Bangladesh, and Nigeria

Historically, the project has concentrated its limited resources at the central level. The logic in this follows, for without central-level policies, reliable national forecasts and procurements, quality system designs, and a well-functioning central warehouse, achieving contraceptive security is impossible. However, contraceptive security starts with the client and so, increasingly, where resources permit, the project has extended its activities down the supply chain to the end user. This also dovetails with the trend toward decentralization in developing countries where lower levels are more important in decision making.

In Ethiopia, the project is working closely with regional governments and their Regional Health Bureaus (RHBs) to support local supply chains. Key regional activities include helping supportive supervision by regions and woredas (districts) to SDPs, assisting in the development of forecasts at the regional level, assessing regional capacity followed by strategic planning, and forming regional CS coordination groups. These regional activities are facilitated by staff at 10 satellite locations across the country, covering six of the 11 regions in the country; two new offices opened in March 2009. Concretely, this regional focus has increased the availability and quality of LMIS data available—the recent 2009 national contraceptive forecast was able to use logistics data for the first time, greatly improving the quality of the forecast. Previous forecasts had relied entirely on demographic data, a much less reliable methodology. While efforts need to continue to improve the quality and timeliness of the data, even limited logistics data can greatly improve the quality of forecasting and decision making.

In Zambia, the project operates three provincial offices, with four more scheduled to open by October 2009. The provincial offices are specifically helping to computerize facilities to support the reporting of logistics data, specifically for antiretrovirals (ARVs) and HIV test kits. They are also supporting supervisory visits to SDPs, including providing on-the-job training (OJT) to facility staff. They are expected to facilitate the availability of reliable logistics data, help regional staff deal with supply issues, and strengthen overall commodity security.

Bangladesh has a long established program of locally based Logistics Service Officers (LSOs) in the provinces. Currently, there are five LSOs supporting the upazilas (sub-districts). Recently, the main focus of their activities is to support the roll-out of the upazila LMIS (see above), including training and troubleshooting. The success of this program is largely dependent on the support of the LSOs to the upazilas. They also provide valuable support to the Smiling Sun Franchise Program clinics (franchised nongovernmental organization [NGO] clinic program supported by USAID), helping to ensure their ability to access public sector contraceptives through the upazilas.

In Nigeria, the project has placed logistics advisors in two USAID priority states—Kano and Bauchi—to provide support to the state-level Family Health Departments in supportive supervision, troubleshooting, and reporting.

Family Planning and Contraceptive Forecasting Approaches Extended to Other Essential Medicines in Malawi and Rwanda

The project's approach to contraceptive quantification can be characterized by a focus on using *logistics data* (consumption and stock on hand) to inform forecasts, rather than demographic data, *linking forecasting to procurement planning* and *coordination* with all stakeholders involved and harmonizing their procurements. The success of this approach has seen a number of countries seek the project's support to expand the forecast to other essential medicines.

In Malawi, the project carried out a national quantification and procurement plan for over 100 essential medicines—the SWAp list of medicines needed for minimum outpatient package, including all the major contraceptive methods. One of the challenges in Malawi is availability of reliable consumption and stock status data. While efforts continue to strengthen reporting, for this year's forecast, the Ministry of Health (MOH), with support from the project, undertook a data collection exercise. Teams visited almost all of the 409 SDPs in the country to collect information on stock status, consumption, and past stockouts. These data then informed the forecasting exercise, which took place in March 2009. Participants came from the Central Medical Stores (CMS), national TB Program, National Malaria Control Programme, the Reproductive Health Division, HIV/AIDS Unit, dental program, and representatives from the districts and the MOH Pharmaceutical Department. Logistics data was the main input into the forecast, with morbidity and population data used mainly for validation and triangulation. After the forecast was complete, PipeLine software was used to prepare procurement plans for all supplies. These procurement plans will feed into the SWAp budget planning process; the quality of the forecasts will be critical in advocating for adequate funding for essential medicines, including all programs. Also notable was the fact that the entire exercise was coordinated by in-country technical staff, with no headquarter's staff needed.

In Rwanda, a similar exercise took place in February 2009. In addition to contraceptives, maternal and child health commodities—ergometrine, oxytocin, iron/folic acid, magnesium sulfate, amoxicillin, zinc, oral rehydration salts, mebendazole, and vitamin A were quantified. For contraceptives, quality consumption data exists, allowing a consumption-based forecast for these products. However, for other supplies, the forecast relied solely on morbidity data, because logistics data are not yet collected in the field.

The outcomes of the quantification exercise determined a current overstock for child health commodities. No shipments are needed before the first quarter of 2010. For maternal health commodities, however, a supply gap was noted. The gap can be attributed to a policy change at the MOH, where all Rwandan women should now have access to maternal health commodities, especially emergency obstetrical care, in an effort to reduce the country's maternal mortality rate. Subsequent to the forecast, GFATM has agreed to fund the necessary commodities, and UNFPA has expressed a willingness to purchase additional commodities, if necessary.

Computerized LMIS and Inventory Management System for Facilities in Ethiopia

Ethiopia is implementing major reforms for the distribution of health commodities with the design and roll-out of a new integrated supply chain. The USAID | DELIVER PROJECT is mandated in Ethiopia to support the implementation of this plan, with a special focus on the regional, woreda (districts), and SDP levels. With this in mind, the project has developed an integrated inventory management and LMIS system for facilities (hospitals and health centers), provisionally named the Ethiopian Health Commodity Management Information System (EHCMIS). The system is currently being tested in 15 facilities (including 11 hospitals) in two regions. The system allows facilities to manage their stocks; track quantities received, issued, and dispensed; determine when they need to

order; and calculate reorder quantities. Already, the system has helped facility managers identify a large number of commodities that they never stock, and shortages and overstocks of other supplies, as well as fast- and slow-moving items. The software was designed to be easy to use by facility pharmacists. This system is being modified based on experience, and long-term plans include linking this system with the new LMIS currently being developed for the Pharmaceutical Supplies Agency (PFSA), and the CMS.

REPORTING AND STOCKOUT RATES AT CENTRAL AND SDP LEVEL IN PROJECT COUNTRIES

Since the third quarter of FY2007, the project has routinely monitored contraceptive availability at the central and SDP levels in most of the countries that have a project presence and that receive Task Order 1 (TO1) funding. Central-level contraceptive availability is reported either monthly or quarterly by 14 countries using the PPMR. Appendix A shows stockouts at the central level, by country; and shows product, as reported in the PPMR during this six-month reporting period for the 13 project-presence countries that report regularly to the PPMR.

During this period, Bangladesh did not experience any stockouts; six other countries (Ethiopia, Malawi, Mozambique, Rwanda, Tanzania, and Zambia) only experienced one stockout at the central level.

Overall, the occurrence of stockouts at the central level decreased significantly during this reporting period, from 12 individual product stockouts in seven countries in October 2008 to only four individual product stockouts in three countries in March 2009. The Dominican Republic, Ghana, and Uganda struggled with the most with recurring or enduring stockouts, usually for the same products, month after month. For example, the Dominican Republic had a continuous stockout of combined orals at the central level because the government did not release funding for them, while Ghana suffered a four-month stockout of Micronor. While no single brand dominated across countries in terms of stockouts, stockouts of oral contraceptives (both combined and progestin-only) made up the majority of stockouts.

In addition to these project presence countries reporting to the PPMR, 10 of them also submit quarterly figures for contraceptive availability from the SDP level, which were available through each country's LMIS. SDP reporting rates are also monitored, as this is the source of the stockout data reported through the project's quarterly reports. For reporting rates to date for FY2007, FY 2008, and FY2009, please refer to table 1.

Table I. Percentage of Facilities Reporting during Fiscal Years 2007, 2008, and 2009

Country	FY2007		FY2008				FY2009	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Bangladesh	99	99	99	99	99	95	97	98
Dominican Republic*	N/A	N/A	N/A	N/A	N/A	46	53	77
El Salvador	95	100	99	91	100	100	100	100
Malawi	80	83			72	93	75	69
Nepal	88	89	82	82	82	85	85	88
Nicaragua**	23	26	27	24	28	12	26	51
Nigeria		43	58	81	88	91	87	88
Paraguay	100	75	52	79	99	92	85	96
Rwanda	84	87	93	86	89	84	76	N/A
Zambia***	82	85	80	94	99	99	85	100
Zimbabwe	95	94	93		93	96	94	91

* New office began reporting in Q4 of FY2008.

** The low reporting rates are to be expected because SDP-level stock status information is only obtained from a small percentage of SDPs while the process of integrating the LMIS is being rolled out nationally.

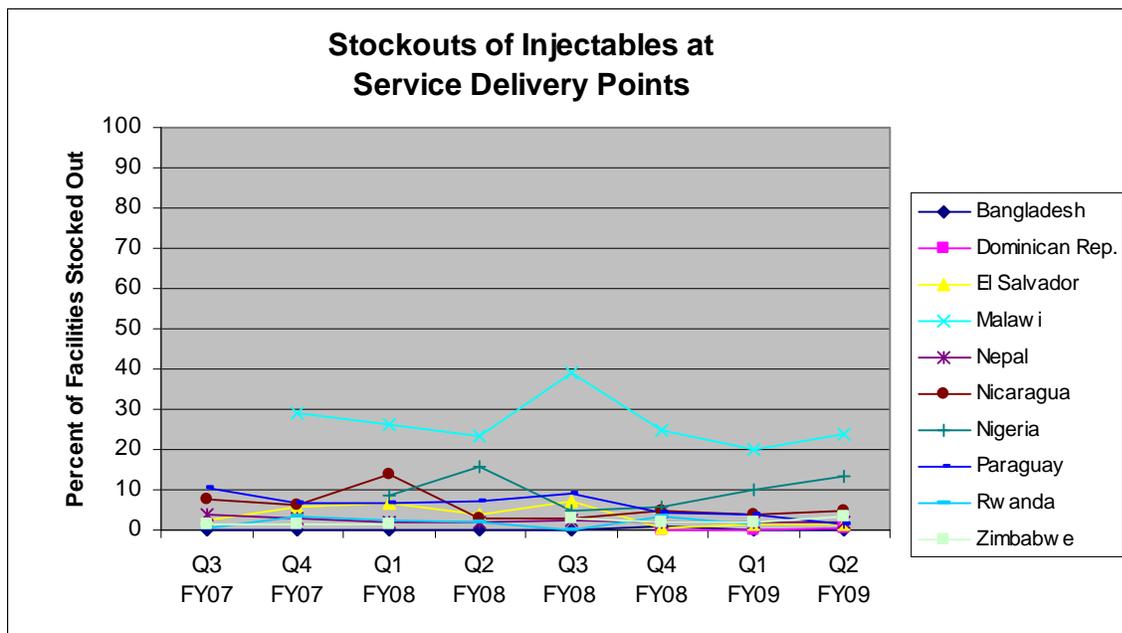
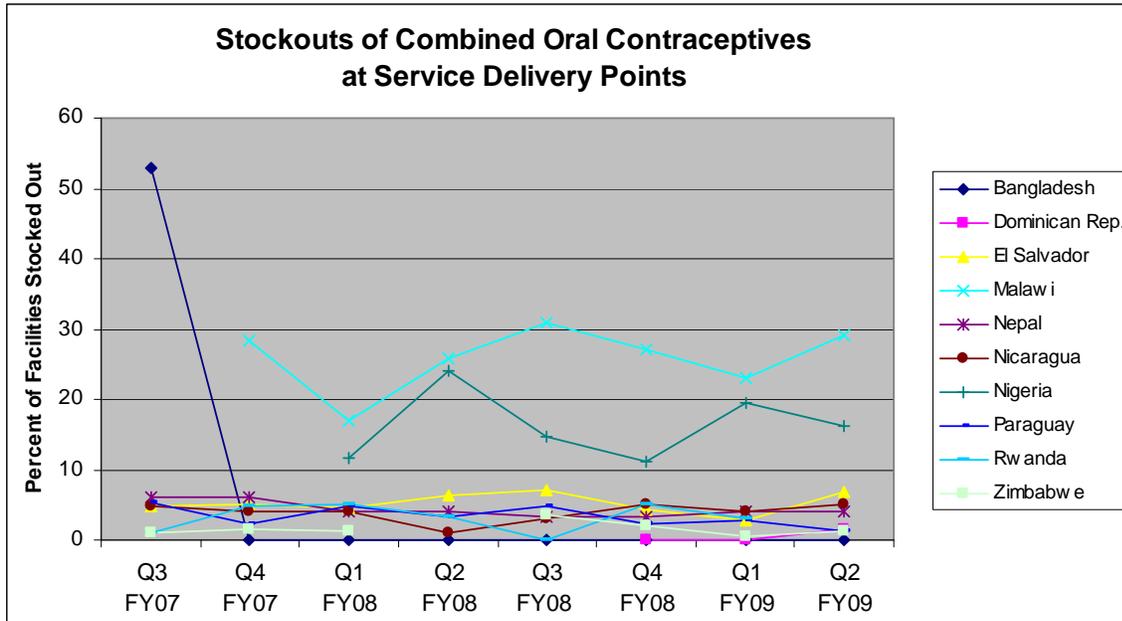
***LMIS form reporting for antiretrovirals.

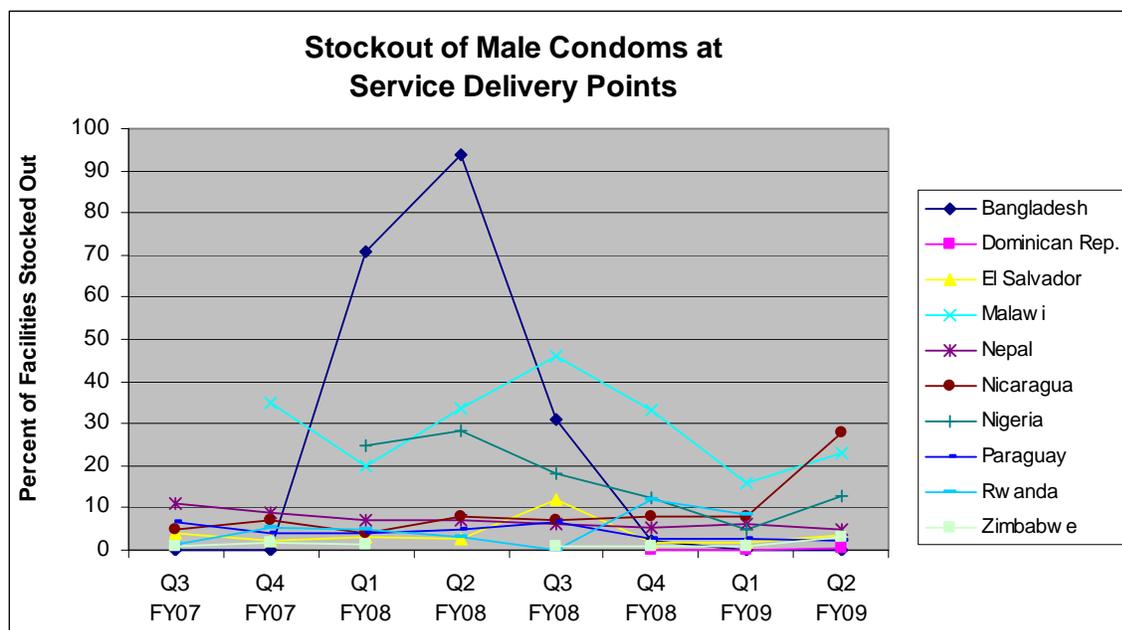
In almost all countries, reporting rates have risen over the past two years and have remained consistently high, averaging around or well above 80 percent each quarter. In fact, Bangladesh, El Salvador, and Zimbabwe have maintained almost 100 percent reporting rates since FY2007. Likewise, with the exception of Q1 FY2009, when reporting rates dipped slightly, Zambia has also maintained almost perfect reporting rates for the past year for ARVs. The field office in the Dominican Republic only opened in mid-2008 and reporting rates have increased by 67 percent in less than a year since operations began in-country.

As noted above for Nicaragua, low reporting rates are expected because the country is in the process of rolling out a national integrated LMIS and, therefore, SDP stock data is only available for a small number of facilities. Nonetheless, Q2 of FY2009 does show that the roll-out is progressing and more facilities (now up to 51 percent) are coming on board to report stock status from the SDP level. Overall, eight of the 11 countries have maintained an average reporting rate of more than 80 percent for the past year, if not longer.

As noted above, using data from the in-country LMIS, stockout rates continue to be routinely monitored in 10 countries with a project presence. These data are presented in figure 1 for combined oral contraceptives, injectables, and male condoms for two years, from the middle of FY2007 through the middle of FY2009 (present).

Figure I. Stockout Rates for Oral Contraceptives, Injectables, and Male Condoms: FY2007–2009





These three high-demand resupply methods require a continuous and reliable supply to meet clients' needs. These graphs show that, for the most part in presence countries, these methods are routinely available to clients at SDPs.

For pills, almost all countries have maintained impressively low stockout rates, well below 10 percent, with the exceptions of Malawi and Nigeria. Stockout rates for pills in Nigeria have still averaged very low, at around 15 percent; slightly higher rates have persisted in Malawi, at an average of 25 percent for the past two years.

Likewise, for injectables, stockout rates have remained, on average, at or below 10 percent for all countries except Malawi. In Malawi, stockouts of injectables have decreased to average around 20 percent in the last year.

Similarly, for male condoms, most countries presented here have maintained very low stockout rates, at or below 10 percent. However, a few countries—Bangladesh, Malawi, and Nigeria—have had some fluctuation in the rates over these past two years. In Bangladesh, there were no stockouts at the SDP level in Q3 and Q4 of FY2007; however, there was a huge jump in stockouts starting in Q1 and Q2 of FY 2008 due to a procurement crisis that was eventually resolved through emergency actions taken by partners in-country. By Q3 of FY2008, stockout rates of condoms in Bangladesh were down to 30 percent and back to zero by Q4 of FY2008 after the shipments had been dispersed throughout the country and the system was back on track.

Condom stockout rates in Nigeria started at around 25 percent when they first started reporting from the SDP level at the beginning of FY 2008; however, the rates had leveled off at or below 10 percent by Q4 of FY2008. In Nigeria, it is worth noting that the project has a limited mandate and leverage for CS at the federal level—most of our efforts are at the state level. Since USAID does not supply contraceptives to the federal level, the project has limited ability to influence forecasting, procurement, or procurement planning.

Finally, as noted in the *Task Order 1 Annual Report* for FY2008, higher stockout rates for all three commodities in Malawi were partly related to a procurement delay at the central level caused by the delayed release of SWAp funding in 2008; the funding is now being used to procure contraceptives.

In addition, poor planning in the decentralization of drug funding to the district level also contributed to higher stockout rates during this period. The effects are still being felt throughout the country; however, stockout rates dropped in the first two quarters of FY2009. In addition, many SDPs do not order oral pills and condoms, ostensibly due to low demand for these products. This creates challenges with non-ordering because of low demand, which leads to stockouts and further suppresses demand for those methods. The project is working hard to resolve the remaining issues.

STRENGTHENING COUNTRY LEVEL COMMODITY SECURITY

Diversifying and Increasing Donor Support for Contraceptives in Rwanda

Rwanda has seen a significant increase in the use of modern contraceptive methods—the contraceptive prevalence rate increased from 10 percent in 2005 to 27 percent in 2008—an almost threefold increase. As the cost of contraceptives grows, this increase presents new funding challenges. Rwanda remains a poor country with high poverty levels and, thus, limited opportunities for cost recovery. Over the short and medium term, most of the burden for contraceptive financing will fall on third party funding sources—donors and the government. Key to continuing contraceptive security is bringing in new donors and continuing or increasing the support of existing ones.

The USAID | DELIVER PROJECT has long advocated for government funding of contraceptive procurement in Rwanda and for bringing in new donors. In 2007, a financial sustainability assessment was carried out that identified government funding and new donors, including the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (Global Fund) as future options. Government funding of U.S.\$100,000 was promised in 2007, but it was delayed due to contractual issues with UNFPA, the proposed procurement agent. These have been resolved; beginning in 2008, government funding of U.S.\$500,000 was provided for products already on order. The government has promised to increase this funding by 3 percent per annum over the next few years. In 2008, the Global Fund promised U.S.\$3.2 million over four years for contraceptive financing; in addition, the British Department for International Development (DFID) provided U.S.\$1 million in earmarked funds to the Rwandan health basket fund for contraceptives in 2009. Meanwhile, traditional donors, like USAID and UNFPA, continue to provide financial support. USAID is increasing its annual support from U.S.\$2.6 million in 2008 to U.S.\$3.5 million in 2009, while UNFPA is providing at least U.S.\$1 million worth of contraceptives in 2009. In addition, *Kreditanstalt für Wiederaufbau* (KfW) is providing support to the social marketing sector. The project's advocacy efforts, combined with support for contraceptive forecasting that provides reliable estimates for both commodity and finance needs, has been key to this diversification of support for contraceptive procurement.

Capacity Building at Regional Levels in Forecasting to Strengthen Contraceptive Security in El Salvador and Ethiopia

Decentralization of decision making to lower levels, including authority over budgets and spending, continues in many project countries. In El Salvador, the project has trained key regional staff in the use of PipeLine software for procurement planning to ensure that they have accurate and reliable estimates of their contraceptive financing needs. This will enable the regions and the national level to advocate for adequate financing for funding from the Essential Drugs Unit. The USAID Mission in El Salvador recently decided to end its support for contraceptive security due to the increase in the contraceptive security rate (CPR) to 73 percent. As part of the project phaseout, the project office is further strengthening the capacity of the national level to do forecasting and to use

PipeLine, with the goal of enabling the project to monitor the supply situation remotely and ensure that contraceptive security is maintained.

Ethiopia has devolved significant powers to its 11 regions (including three urban areas). For both advocacy and budgeting, the project has facilitated training for the regions in forecasting during the past two years. Teams from the regions have carried out regional-level forecasts, which, in turn, are submitted to the Federal Ministry of Health (FMOH) to inform their national forecast. Not only has this improved decision making for national procurement planning, it has also raised the profile of contraceptive security in the regions. Last year, a number of the larger regions decided to supplement their central-level commodity allocation by committing their own funds for procurement; in this case, directly from DKT, the main social marketing project in Ethiopia. With contraceptive prevalence increasing in Ethiopia—a recent survey by the L10k project in the four largest regions showed a doubling in the CPR over three years, from 14 percent in 2005 to 28 percent in 2008. The ability for regions to commit additional funds is an important flexibility in ensuring contraceptive security.

Market Segmentation to Reduce Inequity in the Dominican Republic

A market segmentation analysis (MSA) is one of the main tools used to promote CS; it offers a better understanding of the contraceptive market in a country (e.g., user profiles, access to services, and source of supply), where resources are being allocated; and it helps identify problems of access and equity between socioeconomic quintiles and other segments. Through this analysis, countries can develop plans to meet current and future needs of the population, improve equity, and better target their resources. An MSA conducted by the project for the Dominican Republic (DR) in November 2009 showed that efforts to expand access to and the use of family planning have been successful; however, there are still discrepancies in total fertility rates and CPR between socioeconomic quintiles in the country that need to be addressed. Overall, unmet need for all women was relatively low at 11.4 percent in 2007, but it climbed to 15 percent for the poorest quintile. From these results, it seems that some discrepancy remains in equity of access for family planning between socioeconomic quintiles and that the existing services are not completely meeting the poorer groups' needs. The project is currently working with stakeholders in the DR to develop strategies to address these challenges.

PRESENCE COUNTRIES WHERE THE PROJECT ASSISTED LOCAL ORGANIZATIONS IN DEVELOPING PROPOSALS FOR SUPPLY CHAIN IMPROVEMENT OR COMMODITY PROCUREMENT

In many presence countries, the USAID | DELIVER PROJECT is asked to work with country stakeholders and to provide technical input to proposals related to supply chain improvements and commodity management, including through GFATM. In the past six months, the project has assisted with several such efforts.

In Ethiopia, the warehouse team used a four-part process in assisting warehouses and health facility stores, including an upgrade proposal component. As a result of these assessments and proposals, 35 warehouses and health facility stores were upgraded, both physically and operationally.

In Ghana, the project provided support to the Family Health Division (FHD) to prepare a proposal for funding from the Project Resource Mobilization Awareness (PRMA) of the International Planned Parenthood Federation (IPPF). This is part of a larger capacity building effort for the FHD in proposal writing and work planning to access funding for program implementation—part of their

effort to attract funding for advocacy work from PRMA. The initial proposal was successful and FHD received their funds and are in the process of implementing the activities in the proposal.

In Uganda, the project was involved in developing a proposal for the review of the National TB and Leprosy Program (NTLP) logistics system. The proposal was shared with the MOH and other stakeholders, who are expected to participate in the evaluations. The NTLP intends to advocate for funding from donors and stakeholders for implementing any recommendations that may arise from the evaluation. Development of the proposal is intended to create consensus and achieve buy-in and commitment from the targeted donors and other stakeholders.

IMPROVE ADVOCACY AND COLLABORATION WITH GLOBAL AND REGIONAL PARTNERS FOR COMMODITY SECURITY

PROVIDING THE EVIDENCE FOR GLOBAL COUNTRIES AT RISK INITIATIVE

The CAR group was established to raise awareness of and address contraceptive supply shortages in a timely manner. Monthly, the RHSC Secretariat convenes a group of representatives from the UNFPA New York, UNFPA Copenhagen, USAID, World Bank, RHInterchange, the KfW banking group, and others. Much of the agenda is based on reports generated by the project's PPMR. In addition, the project participates in the monthly CAR meetings to provide context and details on product availability for the highlighted countries. Based on issues raised during the meeting, the project provides clarification and feedback to the CAR members based on follow-up with its respective country offices so that timely actions can be taken. The contributions of project staff, who follow the supply chain on-the-ground, provide invaluable evidence to the CAR activities and they raise awareness about product availability issues. The PPMR also gathers data from non-project countries, such as Kenya; recently, the PPMR highlighted serious stockouts in Kenya; as a result, UNFPA provided emergency shipments of contraceptives.

GLOBAL FUND FINANCING OF CONTRACEPTIVES AND REPRODUCTIVE HEALTH COMMODITIES

One of the project objectives is to “assist in identifying and tapping into new and additional funding sources” for reproductive health (RH) commodities. Historically, GFATM has been largely untapped as a potential funding source for contraceptive supplies. Through a series of policy briefs and continued advocacy efforts, the project has worked to raise awareness about opportunities to procure contraceptives with Global Fund financing.

In particular, the project developed the following:

- The “Global Fund Supports Reproductive Health Commodity Security” brief, which shows how the Global Fund Round 8 provides opportunities to fund reproductive health supplies, including contraceptives. It includes advocacy messages that can help encourage countries to procure contraceptives with Global Fund financing, and also discusses the considerations to be made when planning for these procurements.
- The “Global Fund Financing of Condoms and Contraceptive Security” brief, which summarizes publicly available data on the amount of Global Fund financing that has been made available for

the procurement of condoms in recent years and outlines opportunities to strengthen reproductive health commodity security by using Global Fund financing. Subsequent to these efforts, and as a result of in-country advocacy by the project in Rwanda, the GFATM in Rwanda agreed to fund contraceptive procurement.

- Following the work in Rwanda, the project produced a third brief, “Global Fund in Rwanda Agrees to Finance Contraceptives,” which describes the decision by local Global Fund stakeholders to fund contraceptives in Rwanda. Although Global Fund financing has been used in the past to finance condoms in a number of countries, Rwanda is believed to be the first country to fund contraceptives as part of its efforts to fight HIV and AIDS. In Rwanda, local Global Fund stakeholders have decided to fund contraceptives by providing a three-year commitment worth more than U.S.\$2.4 million from Round 7 Funds. The MOH—with support from the USAID | DELIVER PROJECT—has reliable estimates of financing needs for contraceptives; this clearly identified a future funding gap, thus making the support of the Global Fund vital. Drawing on those data, program managers in the ministry advocated strongly for this new funding.

These and other efforts have been used to help project country offices understand financing opportunities through the Global Fund. Country offices, including those in Ethiopia, Ghana, Mozambique, and Rwanda, have supported in-country stakeholders in their development of GFATM proposals. In part, through the efforts of the project, the Ghana AIDS Commission and National AIDS/STI Control Program have included condoms in the GFATM (Round 8) proposal, which is expected to cater to the country needs and reduce the stress on the budget line for contraceptives. In Zambia, the MOH recently made an application for procuring contraceptive commodities with GFATM Round 8. In addition, the briefs have been shared with other key stakeholders. Most notably, they were incorporated into a session on reproductive health (RH) and GFATM conducted by Population Action International (PAI), as part of the Project Resource Mobilization and Awareness (RMA) Advocacy Workshop for international partners in Ghana.

HIGHLIGHTING ISSUES AND OPPORTUNITIES FOR A SECTOR WIDE APPROACH FOR CONTRACEPTIVE SECURITY

The project, in collaboration with its subcontractor, Abt Associates, developed a primer, “Ensuring Reproductive Health Commodity Security within a Sector Wide Approach.” This primer focuses on how different funding mechanisms can be used, in combination, to improve RHCS and how the SWAp provides both risks and opportunities for CS. The findings and considerations were presented at the MAQ Mini-University and have been used to highlight country challenges and opportunities with stakeholders, including the RHSC and Reproductive Aid.

DEVELOPING AN UNDERSTANDING OF THE GLOBAL CONTRACEPTIVE SUPPLY FUNDING GAP

Over the past eight years, contraceptive security advocates have relied on a funding gap analysis that compares future financing needs for subsidized contraceptives to donor funding. Over the past year, the project partnered with the Futures Institute, with input from PAI and other RHSC members, to update the gap analysis. In March 2009, “Contraceptive Projections and the Donor Gap: Meeting the Challenges” was finalized. This analysis will help raise awareness and highlight the shortfall between the public sector demand for contraceptive supplies and the availability of donor resources

to procure them; it can be used to engage new donors for reproductive health commodities and strengthen the commitment of existing donors.

The RHSC will share the report and highlight the findings at the June 2009 RHSC meeting in London.

COSTING THE SUPPLY CHAIN—EVIDENCE FOR INVESTING IN THE SUPPLY CHAIN

In response to a lack of tools for understanding costs associated with public health supply chains in developing countries, the project, led by subcontractor Abt Associates, has developed a supply chain costing tool. The tool collects information on procurement, storage, transportation, and commodity costs from all tiers of the logistics system. By providing data on supply chain costs, this tool will support advocacy for strengthening supply chains; provide data for decision making to donors, global partners, policymakers, and technical managers; and enable decisionmakers to measure the cost/benefits of supply chain strengthening activities.

The development of the Supply Chain Costing tool draws on state-of-the-art experience in the private/commercial sectors. The draft tool was piloted in Zambia in January 2009. It will be field tested in at least one additional country and then finalized and disseminated to global and country partners.

ONGOING PARTNER COLLABORATION AND COORDINATION

The USAID | DELIVER PROJECT recognizes the importance of working with partners in our collective efforts to further contraceptive security. In addition to the above mentioned activities, as one of the leaders in contraceptive security, the project also serves as a resource for numerous other global and regional partners and activities. For an illustrative list of partners and activities supported by the project, see table 2.

Table 2. Partners and Activities Supported by the Project

Organization	Activity
Project Resource Mobilization and Awareness (RMA)	<ul style="list-style-type: none"> • Served as a resource for Project RMA case studies in Bangladesh, Uganda, and Tanzania. • Helped identify key stakeholders and presented at advocacy workshops in Uganda and Ghana.
Reproductive Health Supplies Coalition (RHSC)	<ul style="list-style-type: none"> • Served as a source for data and reports for the Supplies Information database. • Provided country experience to help identify examples of countries' experiences with new trends (particularly SWAPs and basket funding). • Participated in working groups, providing the country perspective. • Commissioned and supported a software review. • Leveraged in-country CS efforts in Honduras as the basis for a partnership with Abt Associates for the RHSC Innovation Fund to support a Total Market Initiative and build on the work of PSP-One and the USAID DELIVER PROJECT in-country. • Supported RHInterchange efforts to promote use and expand data. • Worked in collaboration with the RHSC to create a report/manual template for the RHSC, and edited and formatted two new RHSC documents, including the <i>Contraceptive Projections and the Donor Gap: Meeting the Challenge</i> and <i>Optimizing the Reproductive Health Supply Chain: A User's Guide to Software</i>.

Organization	Activity
World Bank	<ul style="list-style-type: none"> • Built ongoing linkages and shared information regarding supply chain segmentation, network optimization and simulation, and costing the supply chain
World Health Organization (WHO)	<ul style="list-style-type: none"> • Collaborated on a model for costing the supply chain and for estimating supply chain costs related to scaling up service delivery to meet Millennium Development Goals (MDG) targets in 49 priority countries. • Participated in the Implementing Best Practices (IBP) Consortium and IBP Knowledge Gateway by sharing many of the project's best practices lessons learned, resources, and tools. • Participated in a WHO/UNFPA/FHI conference to revise <i>The Male Latex Condom Specification and Guidelines for Condom Procurement</i>. • Participated in WHO initiated discussions on concept of launching a global virtual community of practice on improved access to reproductive health medicines. • Collaboration with AIDS Medicine and Diagnostic Service (AMDS) and the Procurement and Supply Management (PSM) toolbox working group to review the toolbox website and determine opportunities for improvement. • Participated in a meeting discussing laboratory standardization and laboratory commodity procurement.
UNFPA	<ul style="list-style-type: none"> • Discussed possible opportunities for collaboration and coordination with UNFPA/AccessRH. • Continued to provide UNFPA Copenhagen input on the procurement excellence work stream. • Co-financed participants of USAID DELIVER PROJECT workshop on alternatives to procurement options. UNFPA will also present sessions on their procurement mechanisms and ACCESS RH.
EngenderHealth	<ul style="list-style-type: none"> • Shared with project offices RESPOND information on long-acting and permanent method equipment and supplies.
Futures Group International	<ul style="list-style-type: none"> • Fostered partnership with the USAID Health Policy Initiative (HPI) to develop and identify country operational policies affecting financing and procurement of contraceptives.
Management Sciences for Health (MSH)	<ul style="list-style-type: none"> • Provided technical and logistical support for the Leadership, Management, and Sustainability (LMS) Program's Virtual Leadership Development Program (VLDP), as well as supported the Strengthening Pharmaceutical Systems (SPS) program by providing monthly technical input to the PPMR for Kenya.
Abt Associates	<ul style="list-style-type: none"> • Collaborated with HS 20/20 to support strengthening linkages between National Reproductive Health subaccounts and contraceptive security. • Worked closely with Abt Associates, through its Technical Assistance for Capacity Building in Midwifery, Information and Logistics (TACMIL) project in Pakistan, to create an Urdu language version of the <i>Guidelines for the Storage of Essential Medicines and Other Health Commodities</i>. The USAID DELIVER PROJECT provided a technical review of the translation and guidance on branding and formatting. The translated document is forthcoming.
PATH	<ul style="list-style-type: none"> • Provided input to the PATH project to enhance equity and sustainability for project strategy and country selection.
Supply Chain Management Project (SCMS)	<ul style="list-style-type: none"> • Built ongoing linkages with SCMS for information sharing regarding information technology for supply chain management.

Organization	Activity
USAID	<ul style="list-style-type: none"> • Provided a debriefing of lessons learned and country data to support FP/RH review and report for Africa Bureau. • Collaborative partnership between USAID DELIVER PROJECT and Futures Group International to support regional approaches to CS in Latin America and the Caribbean (LAC). • Participated in a USAID Office of HIV/AIDS (OHA) meeting on Health System Strengthening to identify emerging issues and future direction of health system strengthening. • Attended a President's Emergency Plan for AIDS Relief (PEPFAR) Laboratory Working Group to assist in defining the challenges, opportunities, and best practices in supporting laboratories in preparation for PEPFAR II.
Council of Supply Chain Management Professionals	<ul style="list-style-type: none"> • Participated and presented at the Annual Conference of Supply Chain Management Professionals
American Public Health Association (APHA)	<ul style="list-style-type: none"> • Participated and presented at the Annual APHA conference, representing the project.
International Association of Public Health Logisticians	<ul style="list-style-type: none"> • With a membership of more than 360 in over 60 countries, the IAPHL provides the project with an excellent opportunity to raise and discuss important logistics and public health commodity issues.
The Global Fund to Fight AIDS, Tuberculosis, and Malaria	<ul style="list-style-type: none"> • Conducted an interactive session on Procurement and Supply Management at a meeting in Kerala, India (October 2008).
Regional training institutes	<ul style="list-style-type: none"> • Collaborated with ESAMI and PRISMA to build capacity and transfer skills to provide supply chain management short courses.

IMPROVE USAID'S PROVISION OF COMMODITIES FOR PROGRAMS

SUPPORT USAID'S CENTRAL CONTRACEPTIVE PROCUREMENT SYSTEM

During this reporting period, we completed development of a system scorecard with metrics that allows us to take a closer look at the on-time shipment rate and the factors that affect it. We initiated a process for systematic review and analysis of these results monthly in order to determine the root cause of any results that fall below target and to identify steps for improvement. Over time, this regular review should lead to better system performance.

Operations Performance

Both Release/Purchase Orders and Delivery Notes were issued on time at a rate greater than 75 percent, above our target of 70 percent. Several Release/Purchase Orders were issued with less than the required 90 days because we were waiting for funding or contract modifications after the end of the fiscal year.

PRODUCTS TEAM—PROCUREMENT EXCELLENCE

The project has completed the Procurement Strategy Framework, Market Landscape Framework, and Condom Procurement Strategy to Commodities Security and Logistics Division (CSL), as well as a Condom Market Landscape and Condom Procurement Strategy.

As part of the on-going work regarding documentation of strategies and best practices for contraceptive procurement, the current phase of work focuses on the injectables procurement strategy. The injectables market landscape has been drafted, reviewed, and is being finalized. We expect to complete it by the end of May 2009. An injectables procurement strategy will be generated pursuant to convening an experts' meeting, which will be held in Washington, D.C.; it will gather together experts on injectables to discuss desirable and feasible product specifications; quality assurance; and standards, testing, and contract terms and conditions to further inform the procurement strategy. This strategy will include market trends, technical specifications, eligibility criteria, risk management, contract strategies, and monitoring and evaluation.

The project has also begun a strategic analysis of warehousing and freight forwarding contract strategies for contraceptive procurement in preparation for USAID's new freight forwarding procurement. An initial meeting was held with CSL and a panel of experts, as well as the USAID | DELIVER PROJECT partner, Crown Agents.

IMPLEMENTING THE NEW MIS

The USAID | DELIVER PROJECT MIS plays a central role in the project's efforts to increase the availability of essential health supplies. Since the transition to the new MIS almost a year ago, more than 1,800 orders have been processed successfully in the system, and a steady stream of new users are signing up to view reports on the project's website. To view MIS performance metrics, see appendix A.

In the first six months after the system was launched, we received many requests for changes and improvements; we continue to address them in priority order, while working within available human and financial resources. To ensure that the most critical problems are addressed first, we have established a Change Control Board (CCB) process, which enables USAID and other stakeholders to provide input and also assesses the business impact of specific issues.

MIS Achievements

During this reporting period, the MIS team completed the date alignment project, which considerably improved the handling of numerous dates throughout the system and addressed the related operating procedures. Smaller improvements were made to the ORION suite and the USAID | DELIVER PROJECT website. Consideration for new MIS projects awaits the completion of ongoing discussions with USAID regarding additional electronic data interfaces.

In late summer 2008, the MIS team received the final report from the MIS advisor, who had conducted an Independent Verification and Validation of the USAID | DELIVER PROJECT and the Supply Chain Management System (SCMS) MIS projects. The team responded to all actionable recommendations, which included creating a communications plan, disaster recovery plan, and risk management plan; expanding the performance metrics report and the service level agreement; creating proposals for a new documentation project; completing lessons learned documentation; updating infrastructure documentation; providing a new monthly report on time spent by project function; and presenting estimates for various levels of system maintenance.

During this reporting period, we held task order–specific trainings for USAID and project staff from the three task orders. The goal was to provide training for those who had joined the team since the system was launched in April 2008 and, also, to focus on issues specific to each task order. We were able to identify system and process issues during the sessions—as well as areas of improvement—which were logged and prioritized through the CCB process.

The MIS team participated in meetings with SCMS to explore opportunities for collaboration and potential cost sharing. As we move forward with new development projects, we will be looking to continue this collaboration. USAID’s MIS advisor facilitated these meetings.

PROGRESS ON IMPLEMENTING THE PROJECT’S NEW BUSINESS MODEL

INNOVATION AND BEST PRACTICE

Network Optimization Tool

The project chose a software application, Supply Chain Guru by LLamasoft, which can be applied to developing country settings to help with the analysis of public health logistics systems. Supply Chain Guru is a supply chain modeling and simulation software application where data about a supply chain is entered or imported, and the software predicts the performance, operationally and financially, subject to different constraints. The software was first piloted in Guatemala in 2008 and presented to the USAID Mission in Guatemala City in March 2009. With the help of Supply Chain Guru, the project was able to provide USAID and in-country counterparts with a volumetric analysis that demonstrated that contraceptives represent only a small portion of the products managed in an integrated fashion by the MOH. The analysis showed that even if family planning programs were to expand, or even double, the volume that this represents would not have a significant impact on storage or transport requirements. But, the analysis also showed that if the supply chain encounters significant increases in products that account for a large proportion of the volume, current warehouse and transport capacity may be insufficient. This type of analysis provides the MOH with the information needed to consider different options, such as changing the inventory policy or investing in additional warehouse and transport capacity, thus protecting the different program products, including those needed for family planning. Learning about the Supply Chain Guru’s optimization and simulation capabilities from the USAID | DELIVER PROJECT, the World Bank applied the software in Kenya and Lesotho and is planning other country applications with a view to developing a supply chain strengthening loan portfolio.

Post-Shipment Testing of Condoms

The project completed a short paper on the conditions for and processes of the post-shipment testing of condoms. This paper discusses the rigorous testing that condoms, funded by USAID and other donors, go through prior to shipment. As a result of this paper, a Ministry of Health representative from Uganda stated that he would recommend a review of their policy for post-shipment testing of condoms; he would recommend that the condoms supplied by USAID and other donors be exempt from post-shipment testing because they go through such rigorous pre-shipment testing.

Delivery Team Topping Up: Bringing About Reliable Distribution in Difficult Environments

The project recently published this paper on how the DTTU model—used by the commercial sector, primarily the soft drink industry—is one option that has been successfully applied to ensure product availability. Using the Zimbabwe example, the paper shows how DTTU is a good option for difficult environments. Stockouts of condoms in two pilot provinces were at 20 percent prior to implementing the DTTU; it fell to an average of 2 percent after DTTU was running. Because of these positive outcomes with condoms and contraceptives, some HIV and AIDS products have been added to the DTTU.

Council of Supply Chain Management Professionals

For the first time in its history, the Council of Supply Chain Management Professionals (CSCMP) had a full track dedicated to international public health and humanitarian supply chains at its Global Conference, held last year in Denver, Colorado, from October 5 to 8, 2008. This track, entitled “Matching Supply and Need in Resource-Constrained Settings,” was co-led by the USAID | DELIVER PROJECT and the Massachusetts Institute of Technology (MIT)-Zaragoza International Logistics Program. The conference was attended by more than 3,000 supply chain professionals from 42 countries and included more than 200 educational sessions, split into 25 focus-area tracks (see table 3).

Table 3. Speakers at the CSCMP Conference

Presenter	Presentation
Mark Rilling (USAID)	“No Product, No Program: Improving Global Health with Innovative Supply Chains,” highlighting USAID’s commitment to supply chains as a key to health service delivery
Edward Wilson (USAID DELIVER PROJECT)	“Unexpected Technologies in Developing Country Supply Chains,” looking at various pilots that used devices such as cell phones and personal digital assistants (PDAs)
Prashant Yadav (MIT-Zaragoza) and Jennifer Daily (Clinton Foundation HIV/AIDS Initiative)	“An Overview of Global Health Supply Chains,” focusing on key challenges, such as supply of essential products
Bryan Koon (Wal-Mart)	“Corporate Role in Disaster Response: Lessons from Katrina,” demonstrating Wal-Mart’s extensive capacity in planning for and responding to domestic and international disasters
Iain Barton and Craig Usswald (Pharmaceutical Healthcare Distributors)	“Supply Chain Solutions in Africa,” describing the three regional distribution centers set up to strategically manage inventory
James Coughlan and Chris Larson (UPS)	UPS’s role as a “Need Logistics Provider,” describing their partnerships with CARE and SCMS
Martijn Blansjaar (Oxfam) and Mitsuko Mizushima (Fritz Institute)	Challenges of “Humanitarian Logistics”
Don Hicks (LLamasoft) and James Gibney (USAID DELIVER PROJECT)	“Supply Chain Strategy and Network Design Issues in Delivery to Emerging Markets,” highlighting the use of network optimization software for improved product availability
Modibo Dicko, WHO	“Optimize—Immunization Systems and Technologies for Tomorrow,” highlighting the challenges of cold/cool chain requirements for vaccines and how to ramp up

Collaboration with World Health Organization in Costing the Supply Chain

The Supply Chain Management team has been involved with WHO and the World Bank since the inception of the project on developing an approach for supply chain design/optimization, including using software. Part of the work has focused on developing a methodology for costing the supply chain, which is a requirement for software use. Recognizing the project's leadership in international public health supply chain management, WHO requested the project's assistance in helping them estimate the logistics costs of achieving the health-related Millennium Development Goals (MDGs) in 49 low income countries. This is part of a global effort to determine the total cost of achieving the health-related MDGs in those 49 countries, including the cost of expanding services, product cost, etc. The results will be presented at the G8 summit in July 2009, as well as at the UN General Assembly and the World Bank/IMF meetings in the fall of 2009. For advocacy, WHO will publish a joint WHO–USAID | DELIVER PROJECT paper in the online WHO Bulletin in June before the July G8 summit.

Dissemination of Best Practices

The statistics on the project website use are indicative of the demand for information from the field. Over the last six months, the project website had more than 308,440 visits and more than 80,000 publications were downloaded, an increase of 30 percent from the previous year. For additional project website statistics, please refer to appendix C.

The project has also fulfilled orders for more than 3,000 print publications, representing a 20 percent increase since the last reporting period. Project tools, publications, and software were requested by individuals and organizations in more than 49 countries. The top three publications disseminated by mail were (1) *Resources for Managing the HIV and AID and Laboratory Supply Chains software CD*; (2) *Guidelines for the Storage of Essential Medicines and Other Health Commodities*; and (3) *Logistics Handbook: A Practical Guide for Supply Chain Managers in Family Planning and Health Programs*.

To raise awareness of USAID and the project's efforts in health logistics and commodity security, the USAID | DELIVER PROJECT also completed 31 new or updated publications and disseminated them electronically to many partners and stakeholders through various global health-related newsletters, listservs, and websites.

Technical Leadership

The project continues to provide advisory services for most consultants who visit Ghana to work on family planning, either on the recommendation of USAID or the MOH/Ghana Health Services. These services are based on our understanding and appreciation of the challenges and issues, especially the work we do with the Interagency Coordinating Committee for Contraceptive Security. Recently, we assisted consultants from the Hewlett Foundation and Redstone Strategy with their mission in-country to look at the potential for advocacy to support family planning commodity security concepts. We also hosted three interns from the School of Public Health in our offices to acquaint them with our work, particularly in family planning. As the project works with them, we share the strategies that are in place to ensure the capacity building of local personnel to undertake logistics-related technical activities and contraceptive security. We discussed challenges that affect family planning commodity access; we hope our interactions will help create new champions for family planning.

As part of the ongoing efforts to document the strategies and best practices for contraceptive procurement overall, and by specific product type for TO1, current work focuses on injectables. The USAID | DELIVER PROJECT is taking the lead on convening an experts' meeting in Washington,

D.C., on injectables to discuss desirable and feasible product specifications; quality assurance; and standards, testing, and contract terms and conditions to inform a procurement strategy. This strategy will include market trends, technical specifications, eligibility criteria, risk management, contract strategies, and monitoring and evaluation. The project has also initiated an analysis of freight-forwarding contract strategies for contraceptive procurement. We also engaged our partners to perform some of the shipment history analysis for TO1, to help inform the final study.

PARTNERING WITH LOCAL ORGANIZATIONS AND STRENGTHENING LOCAL CAPACITY

The project continues to demonstrate its commitment to strengthening local and regional capacity. Initiatives over the past six months have focused on capacity building of regional training institutions, facilitating training courses related to commodity security and supply chain management, and supporting distance learning and pre-service trainings.

Regional Training Institutions

One of the recent efforts of the organizational strengthening team has been to build the capacity of the ESAMI in sub-Saharan Africa to provide training courses around logistics functions and supply chain management. ESAMI, headquartered in Arusha, Tanzania, was selected as the regional institute for sub-Saharan Africa. ESAMI and the project agreed on a fixed-price purchase order with specific deliverables that will build their capacity to plan, prepare, and conduct two courses: “Overview of Supply Chain Management and Quantification” and “Procurement Planning.” ESAMI submitted their training plans to the project; seven ESAMI personnel attend the “Overview of Supply Chain Management” course and the “Quantification and Procurement Planning” course held in Arusha in October 2008. Between courses, the same seven personnel participated in full-day sessions designed to orient them to the curricula for each course, address any questions or issues related to either supply chain technical issues or training methodologies used by project facilitators, and practice specific parts of the courses, as necessary.

In Latin America, the project continued to work with PRISMA to build capacity for a Latin American and Caribbean Regional Institution. As part of this, the second purchase order for PRISMA was approved and issued by the Office of Acquisition and Assistance (OAA). PRISMA began planning to conduct three modules (“Overview of Supply Chain Management,” “Quantification and Procurement Planning,” and “Commodity Security: Principles and Practice”) between January and June 2009.

In February, PRISMA used their funds to conduct a tour of Central America to identify potential course venues. As a result, they have identified both dates and locations for their three upcoming courses, including the “Overview for Supply Chain Management,” which will be held from May 25–29; the “Quantification and Procurement Planning” course, which will be held from June 1–5; and “Commodity Security: Principles and Practice,” to be held from June 22–26 in Lima, Peru. PRISMA began disseminating the course announcements on March 31, 2009.

Pre-service Training

Task Order 1 continues to demonstrate its commitment to strengthening local and regional capacity through pre-service training initiatives. Project advisors have developed the supply chain portion of the Unit II curriculum for Pharmacy Technicians at Malawi College of Health Sciences (MCHS); it is ready for implementation. The Malawi College of Health Sciences and the USAID | DELIVER PROJECT country office will meet in April 2009 to determine when the program will begin. Two

other countries, Ethiopia and Rwanda, are in the initial phases of developing pre-service training programs. In Rwanda, an initial assessment is scheduled for late June. In Ethiopia, a project advisor visited institutions in two regions in March (Southern Nations, Nationalities, and People's Region [SNNPR] region in Hawassa and Tigray Region in Mekele) to promote and assess the feasibility of developing a pre-service training program. Next steps were developed to start the implementation of logistics courses in four schools of health in the SNNPR region and two schools of health in the Tigray Region.

Logistics Management Information Systems

In Honduras, the Ministry of Health partnered with a local software company to help automate the LMIS with the previous DELIVER project. Recently, a local software development company, Intersoftware, was contracted to custom design an information system to local specifications and to train logistics managers in how to use this system to manage their inventory and information system. Using a local software company has helped ensure that the data systems are customized to local specifications, requirements, and limitations; built local capacity to develop automated logistics information systems; and helped guarantee effective follow-up to ensure that local staff are trained. The system is functioning appropriately, in part because of the company's local presence.

In-Country Staff Trained

Capacity building remains a challenge and focus of the project's work, with an emphasis on training of trainers to ensure that knowledge sharing continues and expands (see table 4). Countries continue to struggle with high turnover rates for staff, necessitating ongoing and frequent training efforts to ensure knowledge transfer and program continuity.

Table 4. In-Country Staff Trained

Country	Number Trained
Bangladesh	1,878 health workers
Dominican Republic	957 MOH and health facility staff
El Salvador	858 regional and district health staff
Ethiopia	384 health facility staff
Ghana	88 (19–facility level, 13–district level, 31–regional, 25–central)
Madagascar	44 health staff
Malawi	155 community-based distribution (CBD) workers, 113 health staff
Nepal	420 health facility staff
Nicaragua	158 health staff
Paraguay	20 project consultants
Rwanda	20 central-level staff
Tanzania	1,820 health personnel
Uganda	52 CBD workers, 65 health staff
Zambia	662 health staff
Zimbabwe	49 health staff
Total	7,743 staff trained

USING LOCAL HIRES IN PROJECT IMPLEMENTATION

The project has many national and regional country directors and key staff, demonstrating our commitment to using local and regional hires in project implementation. At the Country Director level, no staff changes were made in the last six months, with the exception of a new project office in Liberia, which is led by a regional hire. Only five offices of the 18 with TO1 field support (28 percent) were led by U.S. citizen country directors (Ethiopia, Mozambique, Tanzania, Zambia, and Zimbabwe).

Five countries now have local staff developing the contraceptive procurement tables (CPTs), with no outside assistance. In an additional 14 countries, local staff work on the CPTs, with only limited technical assistance. Fourteen countries report in the PPMR; and two or three more countries will be added later in 2009. In nine countries, the reports (or the data in them) are shared with the MOH; the project plans to expand this in the future. Eleven of 14 USAID Missions are also aware of the report's availability as a planning resource.

USING SUBCONTRACTOR CAPACITIES

The project continues to expand work with its subcontractors, both through on-site staff and short-term assistance. The project benefits from the technical expertise of its subcontractors on specific projects. Most recently, Abt Associates assisted with the development of a supply chain costing tool mentioned earlier. Additionally, PATH has provided significant assistance on the procurement excellence work, including the completion of the condom procurement strategy and new work on the injectables procurement strategy. Under the procurement excellence work, Crown Agents has been engaged to provide technical expertise around freight forwarding contract analysis. Full-time PATH, Crown Agents, and Manoff staff contribute to TO1 work at headquarters.

LEAD FROM FAMILY PLANNING

Leading from family planning means applying the experience, best practices, lessons learned, tools, and approaches that were developed for family planning logistics systems and contraceptive security under the FPLM and DELIVER contracts to other health commodities. This leadership from family planning/reproductive health (FP/RH) helps ensure that family planning retains a seat at the table when wider health system reforms and system integration are being designed and implemented.

The following examples occurred during the last six months:

- Logistics systems were recently designed for managing TB commodities in Zimbabwe; it will be piloted beginning in July 2009. TB drugs for continuation facilities will be integrated onto the DTTU system, which was started in 2003 as the logistics system for condoms and contraceptives. Existing LMIS records for the DTTU system (originally designed for family planning commodities) were adapted to accommodate TB drugs.
- Working through the Uganda Expanded Programme on Immunization (UNEPI), Uganda's Ministry of Health is responsible for providing safe, potent vaccines to all eligible children and women of childbearing age in the country. An effective, reliable cold chain is essential for maintaining recommended vaccine storage temperatures. An estimated 78 percent of health facilities rely on bottled gas as the primary energy source for their cold chain; however, efforts to maintain proper temperatures were hampered by gas shortages, possibly related to gas cylinder shortages at health units and the district vaccine store. Under TO1, using sound family planning and logistics storage practices, and after studying the magnitude of the cylinder shortage

situation, recommendations were offered for improving gas supplies management. A new system was developed for monitoring gas cylinder movement and gas utilization at all levels. By applying these sound logistics principles to gas supplies management, the program can thus improve cold chain functionality, protecting vaccines, and, meanwhile, increasing transparency and accountability for gas movement and use. To continue this effort, a TO1 logistics coordinator is working onsite with UNEPI to support Uganda's immunization program.

- In Malawi and Rwanda, under TO1, the project's approach to contraceptive quantification—focusing on using *logistics data* to inform—has expanded the forecast to other essential medicines. In Malawi, the project carried out a national quantification and procurement plan for over 100 essential medicines. Participants in the forecasting exercise included members of the CMS, national TB Program, National Malaria Control Programme, the Reproductive Health Division, HIV/AIDS Unit, dental program, and representative from the districts and the MOH Pharmaceutical Department. After the forecast was complete, PipeLine software was used to prepare procurement plans for all supplies. In Rwanda, a similar exercise took place in February 2009. In addition to contraceptives, maternal and child health commodities, including ergometrine, oxytocin, iron/folic acid, magnesium sulfate, amoxicillin, zinc, oral rehydration salts, mebendazole, and vitamin A, were quantified. The outcomes of the quantification exercise determined a current overstock for child health commodities. For maternal health commodities, however, a supply gap was noted.
- The project used its experience in developing contraceptive ordering procedures, guidelines, and product specifications in a user-friendly format to create a product catalog for AI commodities under TO2. The catalog includes product specifications, instructions for product use, and shipping and ordering instructions for commodities used to detect avian influenza (AI). In the past six months, the catalog has been updated to include new commodities and to accurately reflect the USAID's Avian Influenza International Stockpile (AIIS). Like the *Contraceptive Procurement Guide* and *Product Catalog*, the *Avian Influenza Product Catalog* is a useful, requested, and well-received tool.
- TO2 adapted the monthly update, developed by TO1, to routinely update USAID and project staff on task order activities. TO2 prepares and distributes a monthly update of task order activities to USAID, mission staff, and the project. The update also includes a shipment and inventory report for that month. This tool has proven to be an excellent way to keep stakeholders up-to-date on task order activities and it is an invaluable record of activities undertaken by the task order.

CONCLUSION AND CHALLENGES

As this report has shown, the project continues to make good progress in improving product availability and implementing the new business model. The routine nature of supply chain technical assistance in improving product availability means that there is plenty of work still to do.

A number of technical and operational challenges will need to be addressed during the next project period. As countries increasingly shift toward funding their contraceptives from their own internally generated budget revenues, the global economic downturn poses a risk that budget commitments will be under-funded. Some evidence indicates that earlier pressure on the balance of payments in Tanzania, which was caused by high global petroleum prices, led to pressure on the government budget and resulted in less funding than planned being allocated to contraceptive procurement.

Project field offices will need to track this phenomenon because the global economic downturn will be felt in all project countries.

A persistent related challenge of procurement delays in several countries also poses a risk for countries using World Bank and other sector wide basket funds to purchase commodities. Malawi, Bangladesh, Ghana, and Tanzania have all experienced stockout problems associated with national procurement delays. These delays will be monitored through the PPMR and highlighted at the CAR and the RHSC annual meeting in London in June 2009.

The continued success of the project in improving product availability is reflected in the increased funding and expanded mandate of project offices in Nigeria, Paraguay, and Zimbabwe, and the newest project country, Pakistan. Pakistan represents an operational challenge, as wider security concerns will affect our ability to provide technical support. Innovative approaches will be necessary to meet the high expectations of local partners, while minimizing the risk associated with short-term technical assistance (STTA). In Nigeria, Paraguay, and Zimbabwe, the challenge will be to manage the scale up in activity while maintaining project effectiveness and managing the work burden for existing staff. New local and regional staff will be recruited in each country.

One other management challenge will be to manage the transition to new funding arrangements in Bangladesh, through a new field support commitment, and Uganda, through a new logistics bilateral project. Another field-based challenge of note will be meeting Mission performance expectations in Liberia in the face of low levels of funding.

Finally, the project's mid-term management review will be conducted during the next six months. The challenge will be to balance the need for taking time to reflect on management performance toward attaining project objectives while continuing to meet the needs of field and D.C.-based clients.

APPENDIX A

CENTRAL-LEVEL STOCKOUTS BY COUNTRY AND PRODUCTS

Central-level Stockouts by Country and Products

	Bangladesh	Dominican Rep	El Salvador	Ethiopia	Ghana	Malawi	Mozambique	Nicaragua	Paraguay	Rwanda	Tanzania	Uganda	Zambia	Total # Stockouts
Oct 2008	0	2 (COCs, Depo)	1 (Noristerat)	0	3 (Male Condom, Depo, Micronor)	0	0	1 (Male Condom)	0	1 (Cycle Beads)	1 (Female Condom)	3 (Fem. Condom, Depo, IUD)	0	12
Nov 2008	0	2 (COCs, Depo)	1 (Noristerat)	0	1 (Micronor)	1 (Jadelle)	0	2 (Male Condom, Norigynon)	0	0	0	0	0	7
Dec 2008	0	1 (COCs)	0	0	2 (Micronor, Norigynon)	0	1 (Microgynon)	1 (Norigynon)	0	0	0	0	1 (IUD)	6
Jan 2009	0	1 (COCs)	0	1 (Male Condom)	2 (Micronor, Norigynon)	0	0	0	1 (Postinor)	0	0	1 (Fem. Condom)	0	6
Feb 2009	0	1 (COCs)	0	0	0	0	0	0	1 (Postinor)	0	0	1 (Microgynon)	0	3
Mar 2009	0	1 (COCs)	1 (Noristerat)	0	0	0	0	0	0	0	0	2 (Microgynon, IUD)	0	4
Total # Stockouts	0	8	3	1	8	1	1	4	2	1	1	7	1	38

APPENDIX B

COMMUNICATIONS DEMAND

WEBSITE STATISTICS FROM OCTOBER 1, 2008–MARCH 31, 2009

Number of visits to the project website

Time Period	Total No. of Visits
October 1, 2008–March 31, 2009	308,441

Number of publications downloaded from the project website

Time Period	Total No. of Pubs Downloaded
October 1, 2008–March 31, 2009	80,000

Top 10 publications downloaded from project website from October 1–March 31

Ranking	
1	<i>Guidelines for the Storage of Essential Medicines and Other Health Commodities</i>
2	<i>Guidelines for the Storage of Essential Medicines and Other Health Commodities- Arabic</i>
3	<i>Description of Indicators</i>
4	<i>Logistics Handbook: A Practical Guide for Supply Chain Managers in Family Planning and Health Programs</i>
5	<i>Logistics System Assessment Tool (LSAT)</i>
6	<i>Monitoring and Evaluation Indicators for Assessing Logistics Systems Performance- French</i>
7	<i>Logistics Indicator Assessment Tool (LIAT)</i>
8	<i>Guidelines for the Storage of Essential Medicines and Other Health Commodities – French</i>
9	<i>Supply Chain Manager User's Manual</i>
10	<i>Guidelines for Implementing Computerized Logistics Management Information Systems (LMIS)</i>

Top 10 project web pages from October 1–March 31

Ranking	
1	Home Page
2	Country Pages
3	Topics: Policy
4	My Commodities
5	Resources: Publications
6	Resources: Tools
7	Topics: Health Commodities
8	Register
9	Countries: Country News Detail
10	Topics: Supply Chain News Detail

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