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About SPS

The Strengthening Pharmaceutical Systems (SPS) Program strives to build capacity within developing countries to effectively manage all aspects of pharmaceutical systems and services. SPS focuses on improving governance in the pharmaceutical sector, strengthening pharmaceutical management systems and financing mechanisms, containing antimicrobial resistance, and enhancing access to and appropriate use of medicines.

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Key Words

Assessment, Bangladesh, Central Warehouse, Directorate-General of Family Planning, Logistics, Medical Supplies, Medical Supply, Medical Supply Chain, Regional Warehouse

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Assessment of the Government of Bangladesh, Directorate-General of Family Planning Warehousing and Logistics System				
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ACRONYMS AND ABBREVIATIONS

DGFP Directorate General of Family Planning

FP family planning

FPI Family Planning Inspector
FWA Family Welfare Assistant
FWV Family Welfare Visitor
GOB Government of Bangladesh
H&FWC Health and Family Welfare Centre

ICT Information, Communications, and Technology

LMI Logistics Management Institute

LMIS Logistics Management Information System

MHE Material Handling Equipment
MSH Management Sciences for Health

OJT on-the-job training

QTR quarter

RH reproductive health

SACMO Sub Assistant Community Medical Officer

SDP Service Delivery Points
SMC Social Marketing Company

SOW scope of work

SPS Strengthening Pharmaceutical Systems [Program]
SWOT strength, weaknesses, opportunities, threats
UIMS Upazila Inventory Management System
USAID U.S. Agency for International Development
WIMS Warehouse Inventory Management System

Assessi	ment of the G of Family Pla	nning Ware	oj Bangiaae housing an	sh, Director d Logistics S	ate-General System	

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The Assessment Team would like to thank Mrs. Dilruba, Director General Family Planning (DGFP) for the Ministry of Health and Family Welfare of Bangladesh, and the entire DGFP staff for the opportunity to learn about their mission and the significant challenges facing the organization. We hope the approach to this initial assessment and the recommendations that resulted will be useful in informing important decisions for the program's future.

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We wish to express our sincere appreciation to the Strengthening Pharmaceutical Systems Program, U.S. Agency for International Development, and Management Sciences for Health for providing funding, leadership, and technical support toward implementing this initial assessment that may assist the DGFP to achieve both its vision and mission, on behalf of the people of Bangladesh.

Assessment of the Government of Bangladesh, Directorate-General of Family Planning Warehousing and Logistics System				

EXECUTIVE SUMMARY

The U.S. Agency for International Development (USAID)/Bangladesh requested the assistance of the Management Sciences for Health's (MSH), Strengthening Pharmaceutical Systems (SPS) Program to support the Government of Bangladesh (GOB) and other key national stakeholders in addressing supply chain management issues related to reproductive health commodities. Overall, the intended outcomes of the technical assistance to the country are to (1) continue to improve the procurement of reproductive health commodities; (2) strengthen the logistics systems to increase the availability of commodities to service delivery points; (3) enhance the management information systems in place; and (4) build local capacity to strengthen health systems for the future.

While significant family planning program advances have been achieved over the past few decades, critical problems that affect availability of contraceptives and other reproductive health commodities still exist. There is general consensus on the part of the Bangladesh Directorate General of Family Planning (DGFP), the World Bank, United Nations Population Fund, and other key stakeholders that current and future program capacities should be examined to address the most pressing issues in both procurement and logistics management systems in the DGFP enterprise.

Stakeholders generally acknowledge that procurement is a major issue and there is also consensus that once commodities are available at the central level, the logistics systems must also be strengthened to meet both current and future distribution expectations. The stakeholders need to analyze and develop strengthening initiatives to improve and build the required capacities for procuring and managing contraceptives and other reproductive health (RH) commodities. These steps provide a renewed sense of urgency for current analysis and technical assistance.

A major focus area for SPS will be ensuring that logistics management systems for handling reproductive health commodities in Bangladesh are capable of effectively and efficiently handle the demand placed on the system. With this in mind, SPS proposes to work with the DGFP to consolidate its role and capacity in the logistics management of RH commodities.

To date, the relatively effective distribution of RH commodities across the country has contributed to the success of the national family planning program; indeed, it was pivotal to the program. SPS intends to support this activity and expand the technical assistance to include a range of logistics management functions, including warehousing, transportation, and inventory control systems. The technical assistance will also aim to leave a systemic solution to cover the supply chain for family planning commodities, i.e., quantifying and planning commodity needs, bringing commodities in country, receiving and managing their quality, and ensuring their appropriate storage and delivery to the service delivery level.

Asses	Assessment of the Government of Bangladesh, Directorate-General of Family Planning Warehousing and Logistics System				

INTRODUCTION

The U.S. Agency for International Development (USAID)/Bangladesh has requested the assistance of the Strengthening Pharmaceutical Systems (SPS) Program, implemented by Management Sciences for Health (MSH), to address supply chain management issues related to reproductive health (RH) commodities, specifically supporting the Government of Bangladesh (GOB) and other key national stakeholders to improve procurement of reproductive health commodities in the country, to strengthen the distribution and management information systems in place, and to build local capacity to strengthen health systems.

USAID has been providing support to ensure the availability of contraceptives and other RH commodities in Bangladesh for over 20 years. This support has included assistance to the public sector to improve systems for supply chain management of RH commodities, as well as assisting the private sector organizations that are major sources of these commodities in the country. While great advances have been made over the past few decades, critical problems that affect availability RH commodities still exist. There is general consensus on the part of the Directorate General of Family Planning (DGFP), the World Bank, United Nations Population Fund and other key stakeholders that one of the most pressing issues to be addressed is procurement management in the DGFP.

Just as key stakeholders generally acknowledge that procurement is a major issue, they agree that once commodities are available at the central level, the distribution system in place from the central warehouse to the service delivery points functions well. SPS Program Associates in Bangladesh assisting DGFP regional and upazila staff play a vital role in supporting this system. However, the capacity of the DGFP to manage storage and distribution of contraceptives and other RH commodities must be strengthened, particularly as demand for these commodities increases.

The SPS program was charged to develop the analysis and technical assistance required to implement the strengthening desired. An initial strategic analysis of the supply chain management issues its personnel, logistics systems, processes/procedures and warehousing/distribution infrastructure of the DGFPs was completed by an independent consultant, Logistics Management Institute (LMI), an SPS partner in December 2009. SPS and LMI jointly conducted this initial assessment in visiting DGFP staff and infrastructures in Bangladesh—August 8–20, 2010.

Field visits for operational reviews of logistics and family planning operations were conducted over 8 days at 13 different facilities from central to regional warehouses and upazila storerooms down to the union service delivery levels. Interviews, site inspections, and sample documentation reviews were focused primarily on warehousing, logistics, information, communications and technology (ICT), as well as governance and management. Ninety-five individual observations were collected and analyzed. The initial observations were consolidated into 20 summarized observations. A strengths, weaknesses, opportunities, threats (SWOT) analysis was performed which identified gaps for strengthening and capacity building. From the SWOT analysis, 14 enterprise level recommendations were developed and organized into Levels I, II, and III, according to impact, funding, and the overall strategic plan.

Of the 14 initial assessment recommendations, 7 were considered Level I—the highest priority—to strengthen and improve the overall logistics support outcomes to the program. These enterprise recommendations address critical gaps in current warehouse utilization, ICT implementation, and governance focus areas as summarized below.

- With only one exception, warehouses and storerooms are at or exceeding capacity. In all
 cases, freeing up available storage space by removing old, unused, or excess equipment
 and supplies may increase capacity by up to 10 percent. Additionally, redesigning and
 equipping existing space is essential to maximize floor and wall space which will allow
 proper management of both current and near-term commodity volumes.
- The availability of material handling equipment (MHE) was almost nonexistent in all facilities so all materials were handled manually, slowing down all receiving, storing, and issuing of commodities.
- Existing warehousing and logistics automated systems provide a good initial
 functionality, but Upazila Inventory Management System (UIMS) and web Logistics
 Management Information System (LMIS) are only fielded to 124 of the 483 Upazila
 (subdistrict) Family Planning Stores severely limited the enterprise accuracy and
 timeliness of inventory reporting and supply decisions.
- The SMC, a USAID-funded family planning commodities provider, provides an excellent local example of best practices. Both DGFP and SMC would benefit equally by formalizing a standing operational logistics work group to coordinate knowledge exchange and networking opportunities.
- The DGFP's 2005 decision to centralize all international and local receiving of commodities at the central warehouse in Dhaka should be strongly re-evaluated. The governance should consider implementing a procurement-logistics pilot test which examines the feasibility and impacts of split/phased consignment deliveries to smooth and maximize the flow of materials into the country from manufacturers and vendors to improve product availability and level the demand for warehousing space.
- Four recommendations were provided as mid-term initiatives which require a moderate level of involvement and support outside the DGFP structure. These mid-term enterprise recommendations address gaps in current warehousing infrastructure, ICT reporting, and distribution logistics and are summarized as follows—
 - The lack of available warehouse capacity to meet projected volume projections necessitates the need for strategic planning to outline construction and renovation requirements for both the central and each of the regional warehouses. Both will likely require the DGFP to build a campaign of support to secure design funding to generate the necessary pre-construction documentation required to demonstrate future capacity needs.
 - Warehouse Inventory Management System (WIMS) and UIMS Inventory
 Management Systems should be enhanced to provide an integrated report generation
 functionality which helps to transmit and share procurement and supply chain
 information within the enterprise.

- O WIMSs and UIMSs require an integrated communications and data transfer framework which incorporates technology devices to facilitate electronic reporting of information from service delivery level to regional/central warehouses. Distances and current manual report generation outside of WIMS and UIMS create repeated delays in complete monthly reporting, minimizing the value of data exchange at each level to improve supply management decision.
- The DGFP should implement a strategic transportation plan to optimize overall service levels by incorporating commercial transportation to enhance delivery timeliness and frequency.

Three recommendations were provided as initiatives which require the most involvement and support outside of the DGFP structure perhaps could be used to lobby funding from the donor community. These enterprise recommendations address significant gaps to current warehousing infrastructure and governance planning.

- Two recommendations involve developing support to secure funding for both the continuation and initiation of investment funding. The first is to continue to phase out all existing structures and begin construction of the new stand-alone uspazila Family Planning Store to create critically needed capacity for long-term projected workloads. The second is to secure investment funding to initiate construction for a new central warehouse and select regional warehouses that would provide immediate warehousing capacity to meet both existing and future storage volumes and projected workloads.
- To ensure supply chain and ICT management have strategic direction and are integrated into programmatic and budgetary processes, both essential DGFP program functions should be incorporated as formal annexes to the DGFP Strategic Plan.

BACKGROUND

USAID/Bangladesh requested the assistance of the SPS program, implemented by MSH, to address supply chain management issues related to RH commodities, specifically supporting the government of Bangladesh and other key national stakeholders to improve procurement of these commodities in the country, to strengthen the distribution and management information systems in place, and to build local capacity to strengthen health systems.

Key informant interviews were conducted with stakeholders including USAID Global Health Fellows Program, senior DGFP leadership and subordinate staff members, the MSH-Bangladesh Country Director and staff, and the Social Marketing Company (SMC) Managing Director In-Charge and staff. A formal debriefing of summary observations and recommendations was provided to the Director General for Family Planning on August 19, 2010.

APPROACH

Strengths, Weaknesses, Opportunities, Threats Analysis

The assessment team utilized the strengths, weaknesses, opportunities, threats (SWOT) analysis approach to identify potential gaps or opportunities that exists within the family planning supply chain within Bangladesh.

- Strengths—Attributes helpful to achieving the objective(s)
- Weaknesses—Attributes harmful to achieving the objective(s)
- Opportunities—External conditions that are helpful to achieving the objective(s)
- Threats—External conditions which could do damage to the objective(s)

The SWOT analysis is used to identify the internal and external factors that are favorable and unfavorable to achieve the objective of any organization.

Document Review

The assessment team did an extensive review of several key documents related to the family planning activities, organizational structure, and functions of the DGFP to include the central warehouse, regional warehouses, and Upazilasand regional storerooms.

In-Country Assessment

The team travelled extensively throughout Bangladesh and visited locations and operations at every level from the central warehouse to the service delivery points at the union level. A comprehensive list of persons contacted and locations can be found in annex 1.

Focus Areas

SPS/MSH and LMI jointly conducted a comprehensive assessment of the management and operations of to identify strengths and weaknesses, potentials for enhancement, risks, and recommendations as related to the DGFP warehouse system in Bangladesh. The team focused on developing an understanding of the nationwide operations of the family planning effort with emphasis on the following areas:—

- Warehousing—The team visited operating units at the central, regional, upazila, and union levels and focused on the following aspects
 - o Infrastructure
 - o Layout
 - o Material handling equipment (MHE)
 - o Procedures to include receiving, stocking, order processing, and dispatch
 - o Security and housekeeping
- Logistics
 - o Transportation infrastructure
 - o Fleet management

- o Route planning
- o Distribution
- Information and Communications Technology (ICT)
 - Warehouse management systems, networks, communications, and reporting—to include a thorough understanding of what management information systems are already developed and what is planned for in the near future
- Governance and management to include an analysis of the strategic plan and how strategic planning is accomplished

STUDY FINDINGS

SWOT Analysis Review

Below is a comprehensive review using a SWOT analysis for each of the operational levels visited which provide logistics support to the country's family planning program. Each of the primary focus areas were further analyzed by operational categories that were either previously provided or identified during the visits as essential or impacting the operations.

SWOT analyses were conducted separately on the Dhaka Central Warehouse; the Chittagong, Comilla, and Bogra Regional Warehouses; and the upazila Storerooms at Chittagong, Comilla, and Bogra. Similarities were found at each site visited which allowed the analysis to be grouped by central, regional, and upazila levels.

Table 1. Dhaka Central Warehouse Analysis Review

	Strength	Weakness	Opportunity	Threat
		Function: Warehousin	g	
Personnel	Experienced and new staff Vacant or realigned key positions	On-the-job training (OJT) as sole means of skills validation or development Key staff (supply officer, admin officer and store keeper)skills missing to manage operations	Formalize training for new and long-term employees Return and/or fill vacant essential leadership positions	Skill levels depart or fail to develop within organization Organization workload and missing essential skills negatively affects outcomes
Infrastructure— exceeded capacity and poor maintenance or repair	Proximity—within city center design—short to mid-term purpose	Transport Accessibility— Severely restricted by population and establishments Construction and repairs— requires capital investment	Redirect use—limit purpose and volume Owned asset—bridge to longterm solution	Surpassed capacity—reduces success Interruption to current program—requires redirect of policy and process
Layout—limited open floor space—horizontal and vertical	Main warehouse— accommodates smaller volume	Aisle and row length—restricts movement	Optimize vertical storage— maximize space	Limits functionality—unable to optimize flow
MHE not available	Favors labor—provides temporary employment	Slows warehousing functions—increases process time	Repair existing equipment—increase capability through lease/buy	Workload overload—receipt, storage and shipment functions outpaced
Procedures for receiving, order processing, put away, dispatch	Current processes adequate—short-term success	Limits WIMS impact—built on manual processes	Improve accuracy and volume—reduce manual processes	Capacity overload—tasks not automated for speed and accuracy
Security and Housekeeping	Capability works—for now	Limited and poorly maintained	Expand visibility and coverage—remove excess and condemned materials	Current capacity at maximum— staff unable to manage volume and flow

Table 1. Dhaka Central Warehouse Analysis Review

	Strength	Weakness	Opportunity	Threat
		Function: Logistics		
Transportation infrastructure	Air and ground networks exist	Currently congested—requires policy and future capital investment	Increase access and delivery of goods—incentivize transports	Decreased access and movement—future gridlock and unable to move FP materials
Fleet management	Inventory available for use	Poor maintenance/repair	Decentralize decision authority—increase reliability	Reduce useful life of investments and capability to transport
Route planning	Already in place	Limited capacity to plan and monitor	Develop enterprise capability	Workload and demand outpace execution
Distribution	Service-level efforts considered good	Limited to monthly deliveries	Maximize ordering accuracy and distribution methods	Demand for FP material exceed distribution capability
	Functi	on: Information and Communica	tions Technology	
Warehouse Inventory Management Systems	System functionality demonstrated	Limited deployments and training completed	Increase deployment, training and capability	Limited impact of strategic initiative, investment and results
Networks	Local Internet and Wi-Fi	Network capacity and implementation limited	Provide broadband modem down to upazila	WIMS and UIMS functionality remains limited
Communication	By phone and face to face	Upazila limited by lack of communication and transportation	Internet Exchange and Conferencing	Loss of time and resources to coordinate/manage
Reporting	Combined automated and manual approach works	Automated functionality and interface for reporting is lacking	Develop reporting and network functionality in WIMS/UIMS	Workload and staff limitations will outpace benefits of management reporting

Table 1. Dhaka Central Warehouse Analysis Review

	Strength	Weakness	Opportunity	Threat			
	Function: Governance and Management						
Staff training on logistics functions	Some evidence	Combination of older and new staff	Develop formalized program for initial and refresher training	Loss of skills due to departure or no understanding of relationship of tasks and functions with the supply chain			
Management of old and excess FP material	FP and supply officer understand impact	Condemnation review structure and procedure not exercised	Incentivize and promote decentralized approach	Processes negatively impacted by clutter—lost opportunity for immediate space management			
Procurement forecasting cycle	Cycle provides short term results—large quantities	Procurement forecasting lacking and negatively impacts logistics execution	Adopt effective forecasting over longer cycle—smooth out flow of material	Stock-outs and shortages will increase with increase in demand Supply chain will fall behind			
Policy congruence	Current policies promote short term success based on strong foundation	Policy approach limited— requires long lens perspective	Review policy impacts to optimize short—mid-term	Overall logistics functions and execution become outpaced by demand			
Strategic planning	GOB model and plan worked—tested structure and approach	Planning for future appears limited	Develop and execute mid-long range planning initiative	Current FP approach fails to achieve desired results			

Table 2. Chittagong, Comilla, and Bogra Regional Warehouses Analysis Review

	Strength	Weakness	Opportunity	Threat
		Function: Warehousir	g	
Personnel	Experienced and new staff	OJT as sole means of skills validation or development	Formalize training for new and long-term employees	Skill levels depart or fail to develop within organization
Infrastructure	Adequate 18–22 year old facilities short-term—designed and ventilated	Aging structures with no maintenance and repair	With exception of Comilla, new construction space exists on FP compounds	With exception of Chittagong, current capacity exceeded—no capacity for future fp growth
Layout	Good layouts except at Bogra- no aisle or row space (FLEX)	All facilities have internal supports and walls limiting full storage capability/function	With exception of Comilla, layout can improve with maximum vertical use	Full space capacity and functionality not realized—limits amount of stored material
MHE	Limited to no hand-operated trucks or other MHE	Reduces logistics functions and day-to-day to manual labor to unload, store, pull and prepare for shipment	To either repair or buy/lease New MHE to optimize movement and management of material stocks	Warehouseman and laborers will be unable to stay up with workload demand in the foreseeable future
Procedures for receiving, order processing, put away, dispatch	Current processes adequate—short term success	Limits WIMS impact—built on manual processes	Improve accuracy and volume—reduce manual processes	Capacity overload—tasks not automated for speed and accuracy
Security and housekeeping	Capability works—for now	Limited and poorly maintained	Expand visibility and coverage—remove excess and condemned materials	Current capacity at maximum— staff unable to manage volume and flow

Table 2. Chittagong, Comilla, and Bogra Regional Warehouses Analysis Review

	Strength	Weakness	Opportunity	Threat
		Function: Logistics		
Transportation Infrastructure	Air and ground networks exist	Currently congested—requires policy and future capital investment	Increase access and delivery of goods—incentivize transports	Decreased access and movement—future gridlock and failed movement of FP materials
Fleet Management	Inventory available	Poor maintenance/repair	Decentralize decision authority—increase reliability	Reduce useful life of investments and capability to transport
Route Planning	Visibly in practice	Limited capacity to plan and monitor	Develop enterprise capability	Workload and demand outpace execution
Distribution	Good service level remarks	Limited to monthly deliveries	Maximize ordering accuracy and distribution methods	Demand for FP material exceeds distribution capability
	Funct	tion: Information and Communication	ations Technology	
Warehouse Management Systems	System functionality demonstrated	Limited deployments and training completed	Increase deployment, training and capability	Limited impact of strategic initiative, investment and results
Networks	Local Internet and Wi-Fi	Network capacity and implementation limited	Provide broadband modem down to upazila	WIMS and UIMS functionality remains limited
Communications	Exists by phone and face to face	Upazila limited by lack of communication and transportation	Use Internet exchange and conferencing	Loss of time and resources to coordinate/manage
Reporting	Combined automated and manual approach works	Automated functionality and interface for reporting is lacking	Develop reporting and network functionality in WIMS/UIMS	Workload and staff limitations will outpace benefits of management reporting

Table 2. Chittagong, Comilla, and Bogra Regional Warehouses Analysis Review

	Strength	Weakness	Opportunity	Threat					
	Function: Governance and Management								
Staff Training on Logistics Functions	Some evidence	Combination of new and experienced staff	Develop formalized program for initial and refresher training	Loss of skills due to departure or no understanding of relationship of tasks and functions with the supply chain					
Management of old and excess fp materiel	FP and supply officer understand impacts	Condemnation review structure and procedure not exercised	Incentivize and promote decentralized approach	Processes negatively impacted by clutter—lost opportunity for immediate space management					
Procurement Forecasting Cycle	Cycle provides short-term results—large quantities	Procurement forecasts lacking which negatively impacts logistics execution	Adopt effective forecasting over longer cycle—smooth out flow of material	Stock-outs and shortages will increase with increase in demand; supply chain will fall behind					
Policy Congruence	Current policies promote short term success based on strong foundation	Policy approach limited— requires long lens perspective	Review policy impacts to optimize short to mid-term	Overall logistics functions and execution become outpaced by demand					
Strategic Planning	GOB model and plan worked—tested structure and approach	Planning for future appears limited	Develop and execute mid-long range planning initiative	Current FP approach fails to achieve desired results					

Table 3. Chittagong, Comilla, and Bogra Upazila Analysis Review

	Strength	Weakness	Opportunity	Threat
		Function: Warehousin	g	
Personnel	Experienced and new staff	OJT as sole means of skills validation or development	Formalize training for new and long term employees	Skill levels depart or fail to develop within organization
Infrastructure	Inadequate 24–25 years facilities —model construction—capacity exceeded	Aging structures with no maintenance/repair and no available capacity for future	Expedite new construction—15 Upazilas underway with 4 times storeroom space	Current capacity exceeded—no capacity for future FP growth
Layout	Current storerooms adapted for use—excellent manual security	Storerooms not specific to original design—all inadequate with no future capacity	Plan and program for office and storage equipment (dunnage, pallet risers, and shelving) to maximize capacity	Full space capacity and functionality not realized—full vertical space not realized to meet future growth
Material Handling Equipment	Limited to no hand-operated trucks or hand dollies	Reduces logistics functions and day-to-day to manual labor to unload, store, pull and prepare for shipment	Include in plan for new construction to optimize management of material stocks	Store keepers will be unable to stay up with future workload demand
Procedures for receiving, order processing, put away, dispatch	Current processes adequate—short term success	Limits UIMS impact—built on manual processes	Improve accuracy and volume—reduce manual processes	Capacity overload—tasks not automated for speed and accuracy
Security and housekeeping	Capability works for now—capacity soon exceeded	Limited and poorly maintained— all storerooms currently have poor ventilation and mold	Expand visibility and coverage —remove excess and condemned materials	Loose current use of full capacity—staff unable to manage volume and flow

Table 3. Chittagong, Comilla, and Bogra Upazila Analysis Review

	Strength	Weakness	Opportunity	Threat
		Function: Logistics		
Transportation Infrastructure	Ground transports deliver to upazila	Staff has limited to no transport capability to travel to meet couples	Program and acquire capability for upazila Family Planning Officers, Family Welfare Assistants, Family Welfare Visitors	Decreased access and movement—future gridlock and failed movement of FP staff and materials
Route Planning	Visibly in Practice	Limited capacity to plan and monitor	Develop enterprise capability	Workload and demand outpace execution
Distribution	Good service level remarks	Limited to monthly deliveries	Maximize ordering accuracy and distribution methods	Demand for FP material exceed distribution capability
	Func	tion: Information and Communication	ations Technology	
Warehouse Management Systems	System functionality demonstrated	Limited deployments and training completed	Increase deployment, training and capability	Limited impact of strategic initiative, investment and results
Networks	Internet and Wi-Fi exist locally	Network capacity and implementation limited	Provide broadband modem down to upazila	WB-UIMS functionality remains limited
Communications	Exists by phone and face to face	Upazila limited by lack of communication and transportation	Internet exchange and conferencing	Loss of time and resources to coordinate/manage
Reporting	Combined automated and manual approach works	Automated functionality and interface for reporting is lacking	Develop reporting and network functionality in WIMS/UIMS	Workload and staff limitations will outpace benefits of management reporting

Table 3. Chittagong, Comilla, and Bogra Upazila Analysis Review

	Strength	Weakness	Opportunity	Threat					
	Function: Governance and Management								
Staff Training on Logistics Functions	Some evidence	Combination of old and new staff	Develop formalized program for initial and refresher training	Loss of skills due to departure or no understanding of relationship of tasks and functions with the supply chain					
Management of Aged and Excess FP Materiel	FP and supply officer understand impacts	Condemnation review structure and procedure not exercised	Incentivize and promote decentralized approach	Processes negatively impacted by clutter—lost opportunity for immediate space management					
Procurement Forecasting Cycle	Cycle provides short-term results—large quantities	Procurement forecasting lacking and negatively impacts logistics execution	Adopt effective forecasting over longer cycle—smooth out flow of material	Stock-outs and shortages will increase with increase in demand; supply chain will fall behind					
Policy Congruence	Current policies promote short- term success based on strong foundation	Policy approach limited— requires long lens perspective	Review policy impacts to optimize short—mid term	Overall logistics functions and execution become outpaced by demand					
Strategic Planning	GOB model and plan worked—tested structure and approach	Planning for future appears limited	Develop and execute mid-long range planning initiative	Current FP approach fails to achieve desired results					

Consolidated Observations

The consolidated observations were developed from the opportunities identified during the SWOT analysis. Since this initial assessment was focused on capturing an overarching view of the logistics support for family planning, the observations developed from the analysis of each support level address only those systemic strengths and weaknesses which affect both current and future operations.

- Family planning structure and system are in place and operational
- Newer staff possess high automation and technological skills
- New upazila store construction—provided four times the storage room
- WIMS/UIMS/web LMIS—good start-up functionality; needs strategic direction to maximize capability
- Consistent shortages of intrauterine devices, implants, and injectables
- Staff retiring without active replacement and training initiatives for key positions
- Observed systemic key personnel vacancies and realignments (no supply officers in any of the regional warehouses)
- Lack of recruitment plan for new service level workers (service delivery point level staff)
- Central warehouse staff and facility overwhelmed with single receiving function—not organized or equipped for the task
- Excluding Chittagong regional warehouse, capacity exceeded and no use of master storage locations
- Daily maintenance of stock impossible at Dhaka and Bogra locations
- Significant quantities of old/salvaged/excess equipment and supplies in all facilities visited
- No evidence of active condemnation review or decision outcomes
- Chittagong capability significantly underutilized
- Aged internal fleet cannot meet current or future workload
- Old facilities (24–31 years) require significant maintenance and repairs
- Material handling equipment is either in disrepair or not available
- Partial signs of implementation of policies and procedures
- Incomplete linkage between procurement, warehousing, and distribution
- Social marketing company warehouse—local best practice

RECOMMENDATIONS

Summary

Because of the short duration of this initial assessment, preliminary recommendations were presented to the DGFP and senior staff to allow for adjustments after the team's departure. Fourteen recommendations were developed from the analysis of observations made during key informant interviews and operational walk through of each facility visited. The consultants recommendations are organized into three levels identified below—

- Level I— Has the most immediate impact with little or no resources required outside the program.
- Level II— Involve issues which have direct operational impact but may require support from both the DGFP and external governmental agencies for funding.
- Level III— Recommendations were considered the most difficult and would impact the program strategically. Two of the three recommendations would require the DGFP to secure support and funding for continued construction of upazila stores and the initiation of construction designs for both central and regional warehouses. The third recommendation sought the inclusion of both supply chain and ICT annexes in the DGFP Strategic Plan.

Level I Recommendations

- Warehousing (housekeeping)—Implement revised DGFP Condemnation Review processes and procedures to dispose of salvageable equipment or re-use excess materials within the enterprise. Action on this recommendation would produce significant positive impact on both existing facility space and staff morale. Cleaning out old or salvaged materials at all levels of the organization could provide sufficient space to meet immediate operational demands. Currently, all facilities visited (excluding Chittagong RWH) are at or have exceeded capacity to store and manage required stocks. During all interviews, staff members described the existing Condemnation Review processes as ineffective or nonexistent in obtaining decisions necessary to properly dispose of or process old, salvaged or excess materials.
- Governance and management (*staff training*)—According to the DGFP competency framework, develop a training program for central and regional warehouse staff members and upazila store keepers. This recommendation attempts to capitalize on the momentum which exists in the formulation of a draft DGFP Competency Framework. To address the need for on-going training of essential job related tasks, the DGFP should actively pursue establishing a program which trains Supply Officers, store keepers, and other key personnel that perform logistics support roles at the central, regional, upazila warehouse, and storeroom levels of the organization.
- Warehousing (layout)—Using comprehensive assessment results, produce warehouse
 designs, master locations and installation of storage equipment to maximize material flow
 and use of vertical space. to allow for the maximum utilization of existing warehouse and

storeroom space, this recommendation seeks to gain recognition for the need to develop technical warehouse storage and equipment designs which optimize every possible capacity to fully utilize of all floor and vertical space available today in existing warehouse properties. Because new storage space will require investment funding and time, all efforts should be made to build any additional capacity for logistics operations until capital investments can be realized. The consultant prioritized this recommendation as a must do to allow any program capacity growth.

- ICT (communication)—Establish a technical working group and knowledge transfer forum consisting of DGFP, SMC, and other stakeholders at the operational level to promote the exchange of best practices. This recommendation can be implemented immediately as both parties have already expressed interest. The benefit of formalizing an exchange between DGFP and SMC is to allow logistics leaders and key staff members of the two major family planning providers in Bangladesh the opportunity to share best practices and seek local solutions to medical supply chain challenges. This knowledge transfer forum is envisioned separately from the Executive Family Planning Forum that is comprised of senior DGFP and SMC Officers and their staff members.
- Warehousing (MHE)—Using comprehensive assessment results, begin implementation of the repair or lease/buy option to provide essential pallet jacks, forklifts, trolleys and ladders necessary for the movement of warehouse stocks. Of the warehouse sites visited, only one has an operational forklift and most have no manual material handling or warehouse equipment. DGFP should immediately assess all material handling and warehouse equipment existing in the program and examine a lease/buy option to immediately provide appropriate capability to the central, regional warehouses and upazila storeroom. If a phased approach is necessary, implementation should be prioritized first to locations processing the largest volumes of receipts and issues of stock from inventory.
- ICT (management information systems)—Resume UIMS/web LMIS fielding of equipment, software and training and also ensure reporting by the upazila staff. During the site visits, the team observed a younger, new staff member with technology skills. Where the systems were previously fielded, these same staff had already mastered the technology and computer aided processes. This recommendation is made to encourage the DGFP to procede to fully implement UIMS and web LMIS throughout the organization to optimize the increased processing and reporting capacity possible through standard automation systems. Every effort should be made to minimize manual accounting and report generation to optimize transparency and information sharing throughout the DGFP enterprise.
- Governance and management (procurement forecasting)—Implement a pilot program to examine the impacts of geographic forecasting, split consignments, and phased deliveries. A 2005 DGFP decision directed the Dhaka Central Warehouse to be the single consignment receiving shipping address for all inbound international and local manufactures and vendors. Prior to this decision, the consignment shipping address for DGFP products was Chittagong Regional Warehouse. A walk through revealed a significantly underutilized warehouse in Chittagong, while the Dhaka Central Warehouse was found to far exceed both its organizational and physical capacity. This recommendation suggests the DGFP implement a pilot program at the central and several regional warehouses to determine both the impact and feasibility of incorporating split

consignments and phased deliveries. This approach represents best practice in most parts of the globe. Results should inform DGFP senior leadership on finding method that would both reduce and level out the distribution of annually procured materials to create maximum efficiencies across the organization and its current storage facilities. Direct distribution to multiple shipping addresses for each DGFP product would reduce the volume of each shipment and lessen the burden for receipt processing time and severely limited storage space. If space still does not allow for the full split quantity to be delivered, split consignments could also be contractually mandated to phase or stagger deliveries with still smaller material quantities per delivery. In either case, maximum flow of material is achieved with the burden for delivery on the seller, while minimizing the impact to severely limited warehousing capacity across the DGFP enterprise.

Level II Recommendations

- Warehousing (infrastructure)—Using comprehensive assessment results, develop a strategic plan for capital investments and improvements for construction and renewal of the Central and Regional warehouses. With the exception of the Chittagong Regional Warehouse, all other facilities are at or exceeding capacity as currently designed and utilized. A comprehensive assessment of current demand and storage space should be completed to compare with future projections. This study effort would identify those existing facilities that would benefit from improvements in storage equipment to extend newly designed storage capacity into the next decade. In the case of the Dhaka Central Warehouse and the highest utilized regional warehouses, assessment results should be immediately utilized to develop a strategic investment plan for new warehouse construction. Of the warehouses visited, all would benefit from improvements while those such as Dhaka and Bogra also require immediate steps to gain investment funding approval to begin new construction. This recommendation, if acted upon, is an attempt to initiate staff action for the design estimates for both improvements and new construction of DHFP warehouse facilities to meet existing and future program capacity requirements.
- ICT (reporting)—Develop integrated report generation functionality in WIMS/UIMS for transmitting shared procurement tracking and supply chain information. At each of the sites warehouse and upazila sites visited, staff members were utilizing the available automated data to make immediate inventory decisions but could not automatically generate required monthly reports. All personnel interviewed expressed the desire to create computer generated reports versus the continuation of manual reporting. Additionally, all personnel also emphasized the importance of being able to see procurement status in both WIMS and UIMS.
- ICT (communication)—With analysis, implement an integrated communications and data transfer framework using WIMS/UIMS, internet, and personal devices to facilitate supply chain coordination and pipeline reporting. Distance, limited transportation and traffic hamper Family Planning Officers and their staff members in every facet of their duties. This reality was expressed repeatedly in interviews at every facility level visited. Monthly reporting appears to be no exception. As of 18 August 2010, 102 of the 483 upazila Offices had not submitted the monthly 7B report. This delayed reporting could be mitigated or completely eliminated with the addition of report generation and transmission capabilities added to these existing systems. The country has several internet providers—although coverage could not be validated. The incorporation of integrated

communications through personal devices is only one alternative that should be examined to solve the immediate problems of reporting and information sharing from the service delivery point back to the servicing central or regional warehouse.

• Logistics (*distribution*)—Using comprehensive assessment results, implement a strategic transportation plan to optimize service level through enhanced delivery frequency (incorporation of commercial transportation). In conjunction with the test pilot program, the consultant recommended the DGFP leadership direct the development of a strategic transportation plan for all family planning materials delivered to and within the country of Bangladesh. Included in this plan should be the examination of commercial and internal fleets in forecasting the best alternatives to meet future transportation capacity requirements. All staff interviewed stated that existing internal fleet drivers and vehicles could not meet future projected workloads.

Level III Recommendations

- Warehousing (infrastructure)—Secure annual funding for a GOB upazila FP store Construction/Renovation Program to replace existing structures and creates capacity for the future. This recommendation relates to the previous call for a study to generate design and cost estimates for both improvements and new construction of existing and future DGFP warehouses and storerooms. This recommendation seeks to position a priority initiative for the DGFP to secure an annual funding stream to generate free standing multi-story construction for upazila family stores, similar to the ones currently being built by the GOB. Existing facilities are quite old and will not meet capacity demands for the future. The current construction design ensures that capacity with storeroom size alone greater than four times the existing storerooms.
- Warehousing (infrastructure)—Secure funding for construction of new central warehouse and some regional warehouses to meet expected future demand. Results from a comprehensive assessment and study analysis should be utilized to develop a priority initiative focused exclusively on constructing a new central and other regional warehouses based on future population projections and results of the strategic transportation analysis and plan. Existing warehouses are already at or exceeding storage capacity. The combined short-term improvements to maximize existing storage capacity and the possible volume reductions from the implementation of techniques such as split consignments provide only near to advantages. Investment and construction funding is likely to be the only long term solution to increase warehousing capacity demands for the long term.
- Governance and management (strategic planning)—Incorporating assessment and DGFP capacity initiatives, develop and gain approval for a Supply Chain Management Annex and an ICT Management Annex to the DGFP Strategic Plan. This recommendation seeks to impress the leadership of the importance of including both the supply chain and ICT as essential components or annexes to country's strategic plan for family planning. Both critical functions require expertise and direction to ensure each are positioned properly to program objectives. Limited time during this visit did not allow sufficient opportunity to examine the extent to which either support function was or was not included in the existing plan.

Assessment of the Government of Bangladesh, Directorate-General of Family Planning Warehousing and Logistics System				

NEXT STEPS

Action Plan for Implementation of Recommendations

A comprehensive coordinated and agreed upon action plan will be a critical component of DGFP's efforts to institute enterprise level changes. The efforts will need to be synchronized at all levels of the supply chain. Action in one area will affect other levels, each with the goal of maximizing capacity and ensuring an efficient and effective supply focused on delivering family planning commodities to those individuals at the Service Delivery Point locations, who in turn supply the client or customer with the items that they require. The immediate next step includes a stakeholders meeting to present the recommendation and findings to relevant stakeholders to agree on appropriate prioritization to implement the recommendations. The stakeholders and DGFP should discuss commencing the implementation of the proposed work plan, as well as determining the nature of the long-term technical assistance required, and support that can be undertaken by SPS Bangladesh team.

Table 4 highlights an assessment work plan that can serve as a basis for implementation of actions to maximize current capacity at the strategic and enterprise levels.

Table 4. Assessment Work Plan

No	Recommendation		Deliverables/Subtasks	Recommended Level
1	Warehousing (housekeeping)— Implement revised DGFP condemnation review processes and procedures to dispose of	a.	Direct a special inventory reporting of all material (supplies and equipment) that are aged, salvaged, excess or non demand supported.	Level I
	salvageable equipment, aged materials, or re-utilize excess materials within the enterprise.		Publish a DGFP directive with revised procedures and milestones for the proper disposition (destruction or turn-in) of all reported materials.	Level I
		C.	Publish a DGFP directive to consolidate Pull and Push items by master warehouse location.	Level I
2	Governance and Management (staff training)—According to the DGFP competency framework,	a.	Develop training program of instruction for supply officers and admin officers and store keepers.	Level I
	implement a training program for central and regional warehouse staff and upazila Store Keepers.	b.	Develop schedule and cadre to conduct training	Level I
	stali and upazlia Store Neepers.	C.	Begin initial and refresher training classes	Level I
3	Warehousing (layout)—Using comprehensive assessment results, develop warehouse design and installation of storage	a.	Assemble existing office, warehouse storeroom, and garage design drawings, dimensions, specifications.	Level I
	equipment to maximize material flow and use of vertical space.	b.	Conduct a comprehensive assessment to analyze and design warehouse/storeroom layouts with equipment listings, source information, and prices.	Level I

Table 4. Assessment Work Plan

No	Recommendation		Deliverables/Subtasks	Recommended Level
4	ICT—Establish a technical working group and knowledge transfer forum between DGFP, SMC, and other stakeholders at the operational level to promote	a.	Publish a joint DGFP and SMC memorandum to establish the supply chain—operational level working group to promote knowledge exchange	Level I
	the exchange of best practices.	b.	MSH-USAID Bangladesh co-hosts and facilitates the first meetings to establish protocols, meeting frequency, and locations.	Level I
5	Warehousing (MHE)—Using comprehensive assessment results, implement the repair or lease/buy option to provide essential pallet jacks, pallet trucks, hand dollies, and ladders	a.	Direct a special inventory reporting of all material handling equipment that is available and operational, available and in disrepair (description), or not available but required.	Level I
	necessary to move warehouse stocks.	b.	Conduct a comprehensive assessment to determine technical needs and repair/lease/buy options.	Level I
6	ICT (WIMS) (Communications)— Resume fielding of the UIMS	a.	Draft fielding plan and schedule for remaining upazila	Level I
	equipment, software, and training packages to all enterprise warehouses and storekeepers.	b.	Initiate equipment and software issue/training to upazila	Level I
7	Governance and management	a.	Develop pilot test concept paper	Level I
	(Procurement Forecasting)—With the 2012–2013 procurement cycles, implement a pilot program	b.	Award pilot consignment for central and one region test	Level I
	to examine the impact of catchment forecasting, split consignments, and phased deliveries.	C.	Assess results—seek implementation decision	Level I
8	Warehousing (Infrastructure)— Using comprehensive assessment	a.	Develop strategic plan with equipment listings	Level I
	results, develop a strategic plan for capital improvements and investments for the central and	b.	Finalize designs and rough order of magnitude cost estimates	Level I
	regional warehouses.	C.	Secure investment funding pledges and initiate contracts for improvements	Level II
9	ICT (Reporting)—Develop report generation functionality in	a.	Develop Shall Statements w/ functional descriptions	Level I
	WIMS/UIMS for the transmission of shared procurement tracking and supply chain information.	b.	Initiate modification of software.	Level I
10	ICT (Communications)—With analysis, implement an integrated	a.	Develop functional description, tech review and training approach.	Level II
	communications and data transfer framework using WIMS/UIMS, the internet and personal devices to	b.	Develop equipment requirement and priority fielding plan.	Level II
	facilitate supply chain coordination and pipeline reporting.	C.	Begin equipment issue and training.	Level II

Table 4. Assessment Work Plan

No	Recommendation		Deliverables/Subtasks	Recommended Level
11	11 Logistics (Ddstribution)—Using comprehensive assessment		Draft transportation plan with scope of work	Level II
	results, implement a strategic transportation plan to optimize service level through enhanced delivery frequency and methods (optimize use of commercial transportation).	b.	Initiate contracts for transport of DGFP internal deliveries.	Level II
12	Warehousing (infrastructure)— Secure annual funding for a long- term upazila FP store construction	a.	Coordination, rough order of magnitude documentation, and recommended priority listing.	Level III
	program to replace existing structures and creates capacity for the future.	b.	Start construction	Level III
13	Warehousing (route plan)— Incorporating assessment results	a.	Shall Statements w/ Functional Description	Level III
	and industry best practices, incorporate supply and route planning functionality into WIMS/UIMS to increase service level outcomes.	b.	Initiate software modification.	Level III
14	Governance and management (strategic planning)— Incorporating assessment and DGFP capacity initiatives, develop and gain approval for a supply chain management annex and an ICT management annex to the DGFP Strategic Plan.	a.	Draft and seek approval on supply chain management and ICT annexes.	Level III

ANNEX 1. SITES VISITED AND KEY PERSONNEL CONTACTED

August 8, 2010, at DGFP

SI. No.	Name	Designation
1	Mrs. Dilruba	Director General
2	Mr. Mohammed Waliur Rahman	Director (Planning) and In-charge Director (Logistics and Supply)
3	Dr. Mahbubur Rahman	Director (Clinical and Contraception Service Delivery)
4	Md. Saiful Islam	Additional Director (Drugs and Supply) and in-charge Deputy Director (Logistics)
5	Md. Mamtaz Uddin	Deputy Director (Foreign Procurement)
6	Mr. Rokan Uddin	Assistant Director (Coordination)

August 9, 2010, at Central Warehouse

SI. No.	Name	Designation
1	Md. Saiful Islam	Additional Director (Drugs and Supply) and in-charge Deputy Director (Logistics)
2	Md. Hanifur Rahman	Assistant Director (Warehouse)
3	Mr. Abdul Kadir	Central Supply Officer (in-charge)
4	Mr. Shah Kibria Omar	Storekeeper
5	Mr. S. K. M. Nazmul Alkas	Storekeeper
6	Mr. A. K. M. Faruque	Pharmacist

August 10, 2010, at Regional Warehouse, Chittagong

SI. No.	Name	Designation
1	Mr. Abul Kalam Azad	Assistant Director (Port Clearance)
2	Md. Shah Alam	Regional Supply Officer (in-charge)
3	Mr. Kiran Chandra Mridha	Port Clearance Officer
4	Mr. K. M. Faruk Hossain	Storekeeper

August 10, 2010, at Kushumpura Health and Family Welfare Centre (H&FWC), Potiya

SI. No.	Name	Designation
1	Mrs. Zigar Sultana	Family Welfare Visitor
2	Mrs. Dipty Chowdhury	Family Welfare Visitor
3	Mrs. Shapna Paul	Sub Assistant Community Medical Officer
4	Mr. Badal Kanti Chowdhury	Family Planning Inspector—In-charge
5	Mrs. Chinu Majumdar	Family Welfare Assistant
6	Mrs. Dipty Shil	Family Welfare Assistant
7	Mrs. Khursheda Begum	Family Welfare Assistant
8	Mrs. Tahera Begum	Family Welfare Assistant
9	Mrs. Rasheda Begum	Family Welfare Assistant

August 10, 2010, at Upazila Family Planning Office, Potiya

SI. No.	Name	Designation
1	Md. Abdur Rohim	Upazila Family Planning Officer
2	Ms. Shahin Akhtar Parveen	Upazila Family Planning Assistant
3	Mr. Ponkaj Nath	Upazila Family Planning Assistant
4	Mr. Palash Kumar Chandra	Upazila Family Planning Assistant
5	Mr. Laxman Kanti Ghosh	Pharmacist

August 10, 2010, at Upazila Family Planning Office, Anwara

SI. No.	Name	Designation
1	Mr. Amullay Mohan Das	Upazila Family Planning Officer
2	Mr. Sudham Chowdhury	Upazila Family Planning Assistant
3	Mr. Abdur Rob	Office Assistant

August 11, 2010, at Regional Warehouse, Comilla

SI. No.	Name	Designation
1	Mr. Kafil U. Ahmed	Supply Officer (in-charge)
2	Md. Sakir Uddin	Storekeeper
3	Md. Kamruzzaman	UFPA/Storekeeper (on deputation)

August 11, 2010, at Upazila Family Planning Office, Comilla Sadar

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	SI. No.	Name	Designation
	1	Md. Aminul Islam	Upazila Family Planning Officer
	2	Ms. Kamrun Nahar	Upazila Family Planning Assistant
	3	Ms. Ummey Shefa Meherunnesa	Upazila Family Planning Assistant

August 11, 2010, at NGO Clinic (Shanirvar Bangladesh), Comilla

SI. No.	Name	Designation
1	Mr. Zia-ul Mowla	Clinic Manager
2	Dr. Farhana Akhtar	Medical Officer
3	Ms. Dipty Shaha	Office Assistant

August 12, 2010, at Upazila Family Planning Office, Kahaloo, Bogra

SI. No.	Name	Designation
1	Mr. Enamul Hoque	Upazila Family Planning Officer
2	Dr. Md. Abdul Mannan Mia	Medical Officer (MCH-FP)
3	Ms. Rizia Parveen	Upazila Family Planning Assistant
4	Md. Enamul Haque	Upazila Family Planning Assistant
5	Mr. Shahanur Khandakar	Office Assistant

August 12, 2010, at Sadar Clinic, Kahaloo Upazila

SI. No.	Name	Designation
1	Mrs. Monowara Begum	Family Welfare Visitor
2	Mr. Abdul Moin Mian	Pharmacist

August 12, 2010, at Muroli Health and Family Welfare Centre, Kahaloo

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SI. No.	Name	Designation
1	Md. Ahsan Habib Khandakar	Sub Assistant Community Medical Officer
2	Mrs. Manju Ara Begum	Family Welfare Visitor

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