



Pakistan: Provincial and District Supply Chain Management Situation Assessment



OCTOBER 2012

This publication was produced for review by the U.S. Agency for International Development. It was prepared by the USAID | DELIVER PROJECT, Task Order 4.

Pakistan: Provincial and District Supply Chain Management Situation Assessment

USAID | DELIVER PROJECT, Task Order 4

The USAID | DELIVER PROJECT, Task Order 4, is funded by the U.S. Agency for International Development (USAID) under contract number GPO-I-00-06-00007-00, order number AID-OAA-TO-10-00064, beginning September 30, 2010. Task Order 4 is implemented by John Snow, Inc., in collaboration with Asociación Benéfica PRISMA; Cargo Management Logistics; Crown Agents USA, Inc.; Eastern and Southern African Management Institute; FHI 360; Futures Institute for Development, LLC; LLamasoft, Inc; The Manoff Group, Inc.; OPS MEND, LLC; PATH; PHD International (a division of the RTT Group); and VillageReach. The project improves essential health commodity supply chains by strengthening logistics management information systems, streamlining distribution systems, identifying financial resources for procurement and supply chain operation, and enhancing forecasting and procurement planning. The project encourages policymakers and donors to support logistics as a critical factor in the overall success of their health care mandates.

Recommended Citation

USAID | DELIVER PROJECT, Task Order 4. 2012. *Pakistan: Provincial and District Supply Chain Management Situation Assessment*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

Abstract

The provincial and districts supply chain management assessment is the first formal assessment of health supply chains in Pakistan. The situational assessment uses both quantitative and qualitative assessment tools to survey 24 selected districts and their 72 facilities. The assessment findings indicate gaps in the supply chain caused by overlapping responsibilities shared by the Department of Health and the Population Welfare Department, a lack of institutional commitment for prioritizing family planning, and issues with human capacity. The findings also note that the distribution system is weak and inconsistent resulting in stockouts at the district and facility levels. The study findings indicate a communication gap among public sector stakeholders resulting in various vertical supply chains and inefficiencies in the distribution system. The study recommends improvement in managerial and technical skills at the provincial and district levels, harmonization and collaboration among stakeholders in developing an integrated supply, and requisitioning and storage for health commodities.

Cover photo: A community health worker in Pakistan brings contraceptive supplies to neighborhood clients.

USAID | DELIVER PROJECT
John Snow, Inc.
1616 Fort Myer Drive, 16th Floor
Arlington, VA 22209 USA
Phone: 703-528-7474
Fax: 703-528-7480
Email: askdeliver@jsi.com
Internet: deliver.jsi.com

Contents

- Acronyms..... v
- Acknowledgments vii
- Executive Summary ix
- Introduction 1
 - USAID | DELIVER PROJECT 1
 - District and Provincial Supply Chain Management Assessment 1
 - Context of the Assessment..... 2
- Assessment Methodology..... 3
 - Stage I 3
 - Stage II 4
 - Stage III 4
 - Stage IV..... 4
 - Stage V..... 4
 - Stage VI..... 4
 - Stage VII 4
- Key Findings from the Assessment Survey..... 7
- Analysis and Discussion..... 25
 - Family Planning In Pakistan—The Historical Perspective..... 25
 - Where is the Population Program in Pakistan Going?..... 25
- Recommendations 33
 - 1. Devolution—Going for the Opportunity..... 33
 - 2. Reaching Out to Relevant Stakeholders..... 33
 - 3. Investing in Human Resources..... 34
 - 4. Ensuring High-quality Supply Chains Using a Well-designed LMIS..... 34
 - 5. Incremental Shift Toward Functional Integration, Starting with the Supply Chain 34
- References..... 35
- Annexes
 - I. The Assessment Tools..... 37**
 - II. List of In-depth Interviews Conducted..... 59**
 - III. Project Field Plan..... 61**
 - IV. Government of Pakistan Devolution Note..... 63**
 - V. Government of Pakistan, Ministry of Population Welfare Devolution Note..... 65**
- Figures
 - 1. Data Collection Instruments..... 3

2. Is the Office Located in the Government’s Building?	8
3. Does the Building Have a Dedicated Storeroom?.....	8
4. Is There a Separate Storeroom/Separate Place Within the Store for Family Planning Commodities/Medicines?.....	9
5. Is There a Computer with Printer, Uninterruptible Power Supply, or Other in Working Condition?	11
6. Is Internet Connectivity Available in Your Office?.....	11
7. Are Day-to-Day Logistics Transaction Records Maintained in the Computer?.....	12
8: Are Commodities Supplied at the Door Step of the SDP?	14
9. Are Any Family Planning Commodities in the Store?	14
10. Are Any Register/Cards in the Store to Maintain the Transaction Records of Commodities?.....	17
11. Is There a Yearly Budget for Transportation of Family Planning Items?	18
12. Does the District Store Use a Departmental Vehicle to Supply Items to Lower Facilities?.....	19
13. Is There a Regular Logistics Management Reporting System?	21
14. Does the Storekeeper Have Minimum Basic Capacity to Use MS Office and Internet Explorer? ..	22
15. Is the DCNP/Storekeeper Trained on Logistics Management?.....	24

Tables

1. Districts Selected for Assessment	5
2. Physical Infrastructure	7
3. Computerization	10
4. Present Inventory	13
5. Inventory Control.....	16
6. Transportation.....	18
7. Reporting	20
8. Human Resource	22
9. Training.....	23

Acronyms

ADC	Assistant District Coordinator
AI	avian influenza
AJK	Azad Jammu Kashmir
CLR	Contraceptive Logistics Report
CW&S	Central Warehouse & Supplies
DFID	Department for International Development (UK)
DMR	District Monthly Report
DOH	Department of Health
DPWO	District Population Welfare Officer
EDO	Executive District Officer
FLCF	First Level Care Facility
GDP	gross domestic product
HSA	Health Services Academy
ICT	Islamabad Capital Territory
KfW	<i>Kreditanstalt für Wiederaufbau</i> (German funding agency for international development)
KPK	Khyber Pakhtunkhwah
LHS	Lady Health Supervisor
LHW	Lady Health Workers program
LMIS	logistics management information system
MIS	management information system
MOH	Ministry of Health
MOPW	Ministry of Population Welfare
NGO	nongovernmental organization
PMI	President's Malaria Initiative
POL	Petrol Oil & Lubricants
PPIU	Provincial Project Implementation Unit
PPW	Population Program Wing
PWD	Population Welfare Department
SCM	supply chain management

SDC	Service Delivery Centers
SDP	service delivery point
SOP	standard operating procedure
TFR	total fertility rate
UNFPA	United Nations Population Fund
UPS	uninterruptible power supply
USAID	U.S. Agency for International Development
VR	Value Resources (Pvt.) Limited

Acknowledgments

The provincial and district supply chain management assessment is the first assessment of the health supply chain in Pakistan. The assessment was successful because of a combined effort by all federal and provincial public-sector stakeholders. The author, and everyone who worked on this assessment, would like to thank the Population Program Wing (PPW) and the provincial health and population welfare departments for their cooperation and collaboration. The PPW staff provided constructive feedback after they reviewed the assessment tool. We greatly appreciate the efforts of our technical experts in the USAID | DELIVER PROJECT office who reviewed, revised, and finalized the assessment tool.

We would also like to thank the Value Resources (Pvt.) Limited (VR), for their central role in designing and implementing the assessment. Their dedication and rich experience helped our team conduct a quality assessment. The field teams, with their experience and expertise, clearly explained the critical challenges to ensuring the availability of commodities at the client level.

Executive Summary

The USAID | DELIVER PROJECT, a U.S. Agency for International Development (USAID)–supported project, improves essential health commodity supply chains by strengthening logistics management information systems, streamlining distribution systems, identifying financial resources for procurement and supply chain operation, and enhancing forecasting and procurement planning. The project commissioned this logistics assessment to identify actions and interventions needed to strengthen the supply chain management (SCM) system at the district- and provincial-level in Pakistan.

This assessment was carried out at a critical time in Pakistan’s history: the country recently enacted the 18th Amendment to the Constitution, which devolved all programs to the provinces, including health and population. The study, therefore, is set in an evolving situation and appears to be in a transitional phase—the overall structure is being adjusted; roles and responsibilities are being repositioned; and the administrative set up is being realigned, particularly relating to the key stakeholders. The findings from this study have enabled the USAID | DELIVER PROJECT to understand what is happening on the ground, within the context of the supply chain assessment. The study also analyzes the key challenges to SCM that the country might face as a result of this devolution of powers, and identifies possible new opportunities for interventions and collaboration that the current evolving context presents.

The present situational assessment uses both quantitative and qualitative assessment tools. The assessment survey included 24 districts, in 72 facilities. It was managed by the Department of Health (DOH), Population Welfare Department (PWD), and the Lady Health Workers (LHW) program. In addition, to understand the Pakistan supply chain at each level of the system, in-depth interviews were conducted with various stakeholders at the provincial- and federal-level.

The assessment findings indicate various gaps in the supply chain, which were caused by a range of issues. This includes the present institutional arrangement—overlapping responsibilities shared by both the DOH and PWD; a lack of institutional commitment for prioritizing family planning, particularly outside the PWD; as well as issues with capacity, which are obvious from the large number of supply requisitioning and recordkeeping.

The assessment findings note that, for the family planning supply chain, the distribution system is weak and is marked by inconsistencies, for both timely availability and quantity supplied; this has caused erratic supply patterns at various levels. The analysis reveals that, while the weak distribution mechanism may have many causes, two stand out: the stakeholders general lack of understanding of the supply chain continuum and, therefore, a lack of attention to the weak links; as well as a lack of institutional commitment by various stakeholders for prioritizing family planning.

The lack of institutional commitment needs to be examined in the larger context and the prevailing policy framework. The demography of Pakistan and population policy have primarily been only the responsibility of a particular ministry and a few professionals and organizations, but with other relevant and critical stakeholders having a minimal, if any, role.

This unusual institutional arrangement resulted in the Ministry of Health (MOH) and the health establishment failing to share any of the responsibility for population outcomes. The evidence is striking, as noted by the assessment findings for stockouts, erratic distribution patterns, and general attitude of indifference for family planning.

The study findings also indicate communication gaps between various stakeholders and a lack of consultation on how to proceed for the future; also, during the present devolution process, stakeholders have not been asked for a buy in.

The findings also stated that, in the post-18th Amendment scenario, when issues of human resources capacities will pose bigger challenges compared to infrastructure availability, the fiscal priorities at the provincial level still favor upgrading the physical infrastructure instead of investing in human resources.

The findings note that, with the challenges of devolution, there is an opportunity to address the institutional separation of health and family planning that led to the marginalization of family planning from the mainstream health programming in the country. After they are devolved, the provincial level will be responsible for the services, thus moving toward improved service delivery by leveraging the vast network of facilities administered by the DOH.

Recommendations from the study include implementing devolution better by improving managerial and planning skills at both the district and provincial levels, and improving the capacity development and provision of technical expertise and knowledge transfer. It is also critical that the changing roles and responsibilities at all three levels—a result of devolution—be recognized; followed by the appropriate institutional, technical, and managerial restructuring, at all levels, to enhance the quality of service delivery.

The new setting for the population planning program presents an opportunity for an essential shift in policy by addressing the lack of collaboration among health and population welfare departments. It also provides a prospect for prioritizing family planning in the vast network of health services in Pakistan. Prioritizing family planning needs to be strongly advocated to a wide range of stakeholders; including the Planning Commission and the Ministry of Finance, as well as health sector institutions—the DOH and the two vertical programs: the LHW and the Maternal, Neonatal and Child Health (MNCH). After the policy is clearly defined, the administrative and governance issues, particularly in the SCM context, can be addressed at the district and service delivery point level. To accomplish this, the two key departments will need to improve coordination and cooperation at the service delivery level.

As indicated by the assessment findings, capacity gaps, particularly for SCM, continue to hinder the quality of service delivery. Targeted initiatives that will build the managerial and leadership capacities of the health managers are needed. The assessment findings note skill shortages at various operational tiers; this highlights the need to explore a variety of capacity enhancement interventions—pre-service and in-service training programs—instead of sporadic, one-off training programs.

Introduction

USAID | DELIVER PROJECT

The USAID | DELIVER PROJECT, a U.S. Agency for International Development (USAID)–supported project, improves essential health commodity supply chains by strengthening logistics management information systems, streamlining distribution systems, identifying financial resources for procurement and supply chain operation, and enhancing forecasting and procurement planning. Health programs cannot operate successfully without a full supply of essential commodities. The project encourages policymakers and donors to support logistics as a critical factor in the overall success of their health care mandate.

The USAID | DELIVER PROJECT works on a range of health commodities, including contraceptives, essential drugs; as well as select commodities for HIV and AIDS, malaria, maternal and child health, infectious diseases, and avian influenza (AI). The project currently supports USAID's efforts to improve product availability through task orders in strengthening integrated in-country supply chains, avian and pandemic influenza preparedness, and the President's Malaria Initiative (PMI).

The project opened an office in Pakistan to support the coordinated goals of the Government of Pakistan and the USAID Pakistan Mission to use health system strengthening to improve the health of Pakistan's citizens. The Islamabad office had been closely coordinating activities with the Ministry of Population Welfare (MOPW) and the MOH before devolution; and the Planning and Development Division, Provincial Population and Health Departments, and LHW program after devolution. A consultative process was used to jointly identify and develop priorities. Technical assistance work helps strengthen local capacity; the staff are local residents; they only receive limited support from short-term specialized external consultants. Local staff also have access to the USAID | DELIVER PROJECT specialist web-based technical resources and materials.

The project plans to introduce modern technology into the supply chain management: barcoding; automated inventory control system at the central warehouse; a web-based logistics management information system (LMIS), linked to procurement planning and forecasting; and automated procurement activities. The central warehouse, which is located in Karachi, is the main warehouse for the Planning and Development Division and the LHW program; it will be extended and equipped to handle an increased volume of commodities. The key personnel responsible for logistics will be trained in a redesigned LMIS. The concept of sustainability and capacity building will be a central point in planning, designing, and implementing all the interventions.

District and Provincial Supply Chain Management Assessment

Using the assessment tool provided by the USAID | DELIVER PROJECT, the project has engaged Value Resources (Pvt.) Limited (VR), a consulting organization, to conduct a logistics capacity assessment of district and provincial facilities under the Population Program Wing; formerly the MOPW, LHW program/MOH and DOH throughout Pakistan.

The assessment goals were to determine an overall perspective of the current supply chain management situation at the district level, as it relates to several key areas when determining the functionality of a health system.

Key Objectives

The objectives of the assessment were to—

- Conduct a logistics assessment that would identify actions and interventions needed to strengthen the supply chain management (SCM) system at the district- and provincial-level.
- Use the gathered data to inform policymakers, and relevant stakeholders within the Population Welfare Departments (PWD), LHW, and DOH, on the supply chain management situation at the district- and provincial-level, and which would lead to a targeted and informed series of supply chain interventions for system strengthening.

Context of the Assessment

This assessment was carried out at a critical time in Pakistan’s history. The 18th Amendment to the Constitution calls for all programs, including health and population, to devolve to the provinces. The MOPW was devolved on December 1, 2010. Similarly the MOH has been devolved since June 2011. Notifications issued by the Implementation Commission, Government of Pakistan¹, following the enactment of the 18th Amendment, indicate that the core functions of the ministry will be devolved to the respective provincial departments of health. Some attached departments, functions, and programs of the ministry were transferred to different departments, including the Planning and Development Division, the Economic Affairs Division, the Cabinet Division, and others. A similar arrangement has been followed to devolve the MOPW.

The overall structural adjustments, repositioning of roles and responsibilities, realignment of administrative set up, etc., particularly relating to the key stakeholders, appear to be in a transitional phase. Most areas still need to be clearly stated or communicated to the three tiers—the federal, provincial, and district levels.

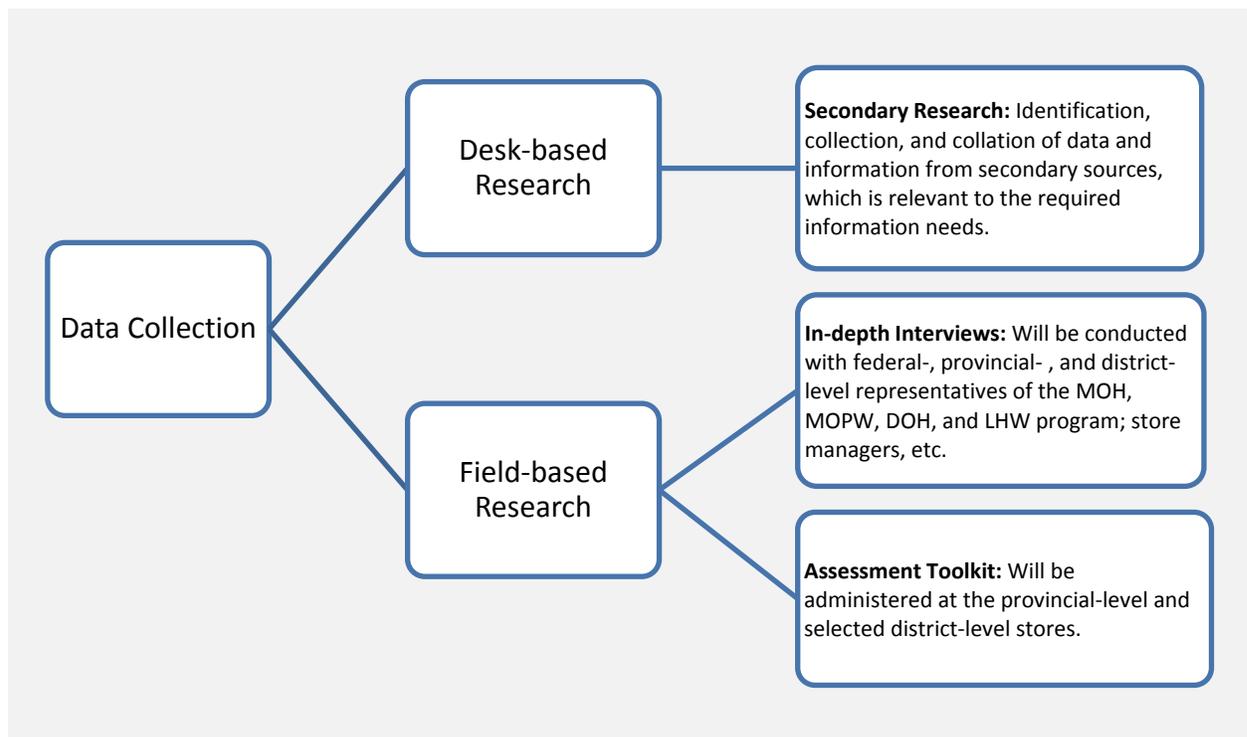
The assessment has, therefore, been conducted in the larger evolving context because it has direct and indirect implications for the supply chain of family planning products. The study findings present the overall picture on the ground, within the context of supply chain assessment, and including an analysis of the key challenges and opportunities related to ongoing devolution.

¹ Notification of the Implementation Commission

Assessment Methodology

The current situational assessment study used both quantities and qualitative assessment tools. The main data collection tools included an assessment tool kit (developed by the project), in-depth interviews with key stakeholders, and a secondary assessment using a literature review.

Figure 1. Data Collection Instruments



The first phase of the assessment, which took more than two months, covered the entire preparatory phase, tool development, and the pilot test in the two target districts. The pilot test was followed by the compilation and presentation of the preliminary findings from the pilot test.

Stage I

In the first stage, the following activities were completed—

- developed the guide book
- identified facilities for the assessment
- made first contact with potential respondents.

Stage II

The second stage included the orientation and training of the assessment team. The guide book and assessment tools, developed by the project team, were used during the two-day training. The field plan, including 25 districts, was also developed during this stage.

Stage III

Following the training of teams, a pilot test was launched in two selected districts: Islamabad Capital Territory (ICT) and Rawalpindi. The pilot test was carried out over five days, and included an assessment of six facilities and in-depth interviews with four government officials.

Stage IV

During this stage, the database for data entry was created; it was based on the assessment toolkit and a preliminary analysis of the collected information. The assessment team compiled the lessons learned, as well as the challenges faced during the pilot phase; they shared it with project team during a debriefing session. The assessment toolkit and the guide book were revised, based on the pilot test findings and discussions with the project team. The findings from the pilot test were compiled in an initial report and shared with the project team.

Stage V

Following the pilot test and debriefing with the project team, the assessment toolkit was revised; it included some additional questions. Subsequently, field visits were made to the sample districts. Because of the security situation in-country, planned visits to the selected districts had to be adjusted. With the project team's consent, Balochistan region was not visited because of the deteriorating security situation in Quetta. Similarly, Khyber Agency and DI Khan were substituted for other districts in Khyber Pakhtunkhwa (KPK), including Swabi and Nowshera. New districts in Sindh and Punjab replaced the four districts of Balochistan. Travel to Gilgit had to be postponed several times because flights were unavailable. Because rescheduling was not possible, the project team agreed to eliminate Gilgit from the selected districts.

During the assessment, staff visited 24 districts, including 72 facilities, and they visited the stores run by the DOH and the PWD, and those managed by the LHW.

Parallel to the facility assessment, a series of in-depth interviews were conducted with various stakeholders at the provincial- and federal-level. See annex I for a list of people interviewed.

Stage VI

After the assessment exercise in the 24 districts was completed, data entry in an Excel database was started. The assessment team completed a preliminary analysis on the findings and presented the initial findings to the project team.

Stage VII

After a detailed analysis of the data and a literature review of secondary data were completed, the draft report was compiled (see table 1).

Table 1. Districts Selected for Assessment

Region	District
Islamabad Capital Territory (ICT)	Islamabad
Punjab	Rawalpindi
	Chakwal
	Faisalabad
	Lahore
	Multan
	Rahim Yar Khan
	Khushab
	Lodhran
Khyber Pakhtunkhwa	Nowshera
	Swabi
	Peshawar
	Abbotabad
	Haripur
	Mardan
Azad Jammu Kashmir (AJK)	Muzaffarabad
	Rawalakot
Sindh	Mithi
	Jacobabad
	Dadu
	Mirpur Khas
	Badin
	Hyderabad
	Karachi

Key Findings from the Assessment Survey

This section presents the key findings of the situational assessment of the district and provincial supply chain management for the eight core areas of focus—ranging from the assessment of physical infrastructure of the store facility to the inventory control and current human resource capacity.

Each core area was explored in comparative terms for the three types of the district facilities visited, including stores managed by the PWD, the DOH, as well as the LHW. See table 2.

Table 2. Physical Infrastructure

Population Welfare Department	Department of Health	Lady Health Workers
The majority of store facilities (91%) are located in rented buildings that have a dedicated storeroom on the premises.	Most (91%) of the stores are located in govt. buildings; about 83% have a dedicated storeroom in the building. The remaining stores (17%) were located in a separate building, either rented or other govt. buildings outside the Executive District Officer (EDO).	While most of the national LHW program offices (87%) are in govt. buildings, half the store rooms were in either rented buildings or on government hospital property.
Of those with dedicated space for a store room, more than half (54%) have separate designated storerooms for family planning items.	Only about 20% have dedicated storeroom space for family planning products.	While half of the sample visited had a dedicated store room in the buildings, only 29% had dedicated space for family planning items.
The assessment findings note that the availability of most of the storeroom equipment is below the required levels at the PWD stores. Most of the respondents expressed a need for more storage equipment; as well as auxiliary items, such as fire extinguishers, exhaust fans, etc. It was observed that, in most cases, the shelves for keeping medicines are unavailable and commodities are stored in cartons placed on the floor.	The situation at the DOH stores is no different; the availability of storeroom equipment generally below the required levels.	The findings indicate that, while some storage equipment was present in about 66% of the stores, most of the respondents expressed the need for more storage equipment. About 25% of the sample districts did not have any storage equipment for the storeroom. One-third of the total sample visited did not have basic store equipment, like fans, etc.

Population Welfare Department	Department of Health	Lady Health Workers
The average store size is 22 feet in length, 19 feet width, 12 feet height.	Average storeroom size of 20 visited DOH stores: 49 feet length, 26 feet width, and 13 feet height.	Average size of the district LHW program office store: length 34 feet, width 21 feet, height 12 feet.

Figure 2. **Is the Office Located in the Government’s Building?**

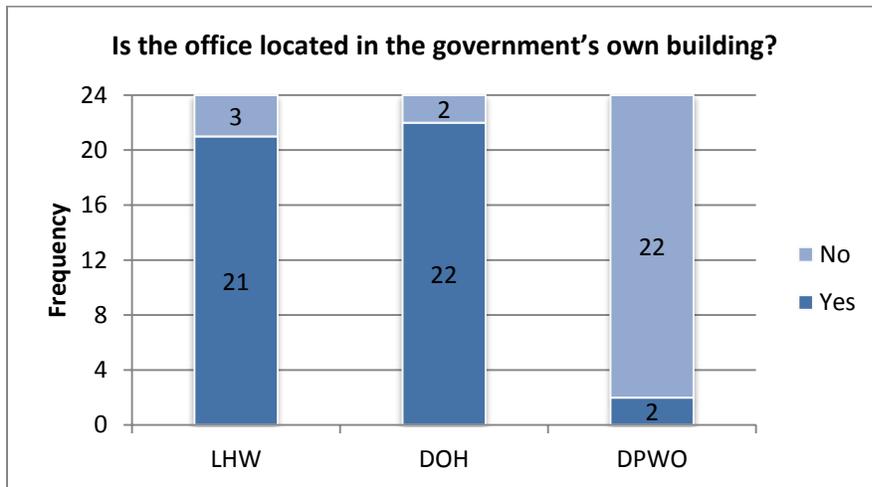


Figure 3. Does the Building Have a Dedicated Storeroom?

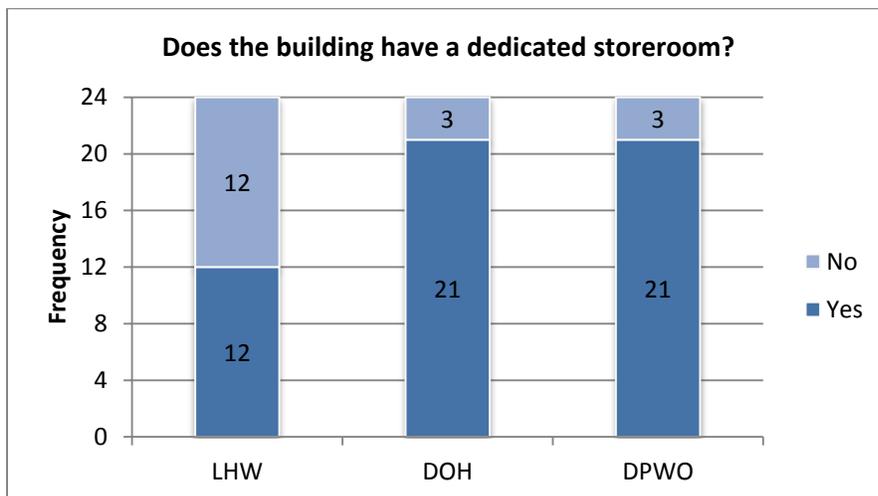
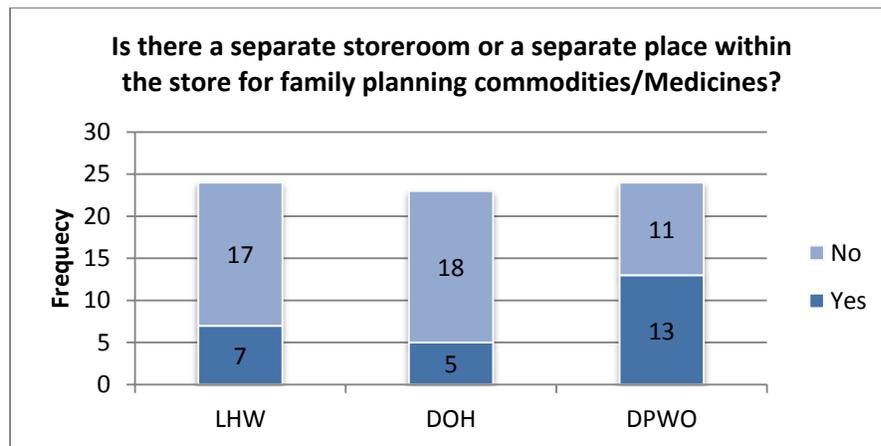


Figure 4. Is There a Separate Storeroom/Separate Place Within the Store for Family Planning Commodities/Medicines?



Overall Findings:

- The assessment findings indicate that, compared to their counterparts, PWD has a higher cost of doing business because the offices are located in commercial buildings and, therefore, have high administrative overhead. Most of the respondents also cited that the frequent moving from building to building was a major challenge that disrupted their work.
- The overall state of the store facilities appears to be below average, with most facilities lacking adequate storage equipment.
- The analysis showed that upkeep and maintenance of the store facilities is not a high priority area within the three institutions, reflecting low funding allocations for general infrastructure maintenance. Budget constraints are often stated as the main reason for the current state of infrastructure and equipment.
- The assessment findings note that, considering that PWD is a department dedicated for family planning, a significant number of the store facilities (38 percent) do not have designated space for family planning items. The findings also indicate that, overall, the DOH does not consider family planning items as priority items that warrant special attention; hence, the lack of dedicated space for storage. This appears to be the case for the LHW, where less than a third of the stores visited had space designated for family planning items, indicating the secondary priority status accorded to family planning within the program.

Half the stores visited had refrigerators and freezers, but they were not being used exclusively for storing family planning items. There appeared to be a general lack of awareness and some degree of indifference regarding care in storing family planning items at the store facilities.



Storeroom—LHW—Muzafarabad



Fabricated Storeroom—DOH—Mardan

Table 3. Computerization

Population Welfare Department	Department of Health	Lady Health Workers
Of the sample visited, 79% have computers available at the store level, while 58% use them for recordkeeping of logistical data; this indicates an overall inclination for using information technology (IT)-based solutions for recordkeeping.	Of the 23 visited stores, 13 have computers available (56%), of which 8 districts use computers for logistics purposes (61%). The findings note that compared to the District Population Welfare Officer (DPWO), the DOH lacks the basic computer hardware. There also appears to be a general trend to maintain records manually.	Of the 24 district facilities visited by the team, all had computers and printers available. In 3 facilities, however, the computer was not working.
Of the sample visited, 45% have the Internet available.	Of 13 district stores with computers available, only 6 (46%) had the Internet available in the store or on the computers used by the store or the logistics-in-charge.	Of the facilities that had Internet on their computers (45%), indicating a better usage rate compared to their counterparts in DOH.
Sixteen percent are recording day-to-day transactions on a computer while 83% are producing invoices and reports in the computer.	Thirteen percent are recording transactions on a computer every day, showing that the current practice is not IT-based. Fourteen districts (60%) are preparing invoices or monthly reports on the computer.	Only 3 districts out of 24 visited (12%) are using a computer to record daily logistics transactions; but, in 19 districts (83%) either reporting or invoicing is done on a computer.
No specific software is being used by any district. MS Excel and Word are used to maintain logistics data.	No specific software is being used by any district. MS Excel and Word are used to maintain logistics data.	Six districts out of 23 (26%) visited reported that LHW-management information system (MIS) software was installed in their facility. Most use printed forms to maintain the logistical data.

Population Welfare Department	Department of Health	Lady Health Workers
The backup facilities, generators and an uninterruptible power supply (UPS), are not available in most cases; only a third of the sample selected report that they have generators.	Generators, as backup support, is available in 60% of the facilities visited, reflecting a slightly better situation compared to their District Population Welfare Officer (DPWO) counterparts.	Twenty-two percent have backup support, like generators.

Figure 5. Is There a Computer with Printer, Uninterruptible Power Supply, or Other in Working Condition?

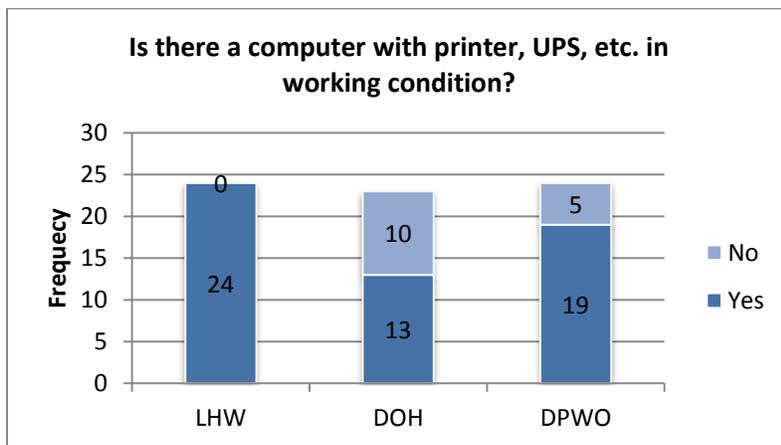


Figure 6. Is Internet Connectivity Available in Your Office?

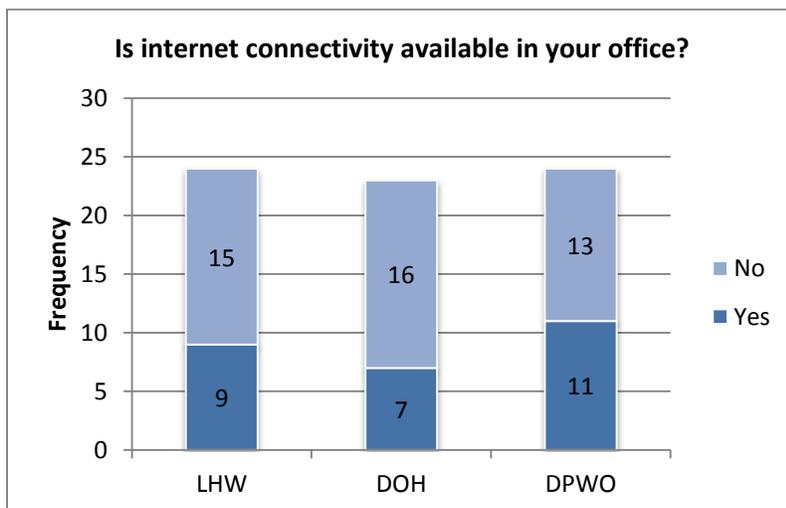
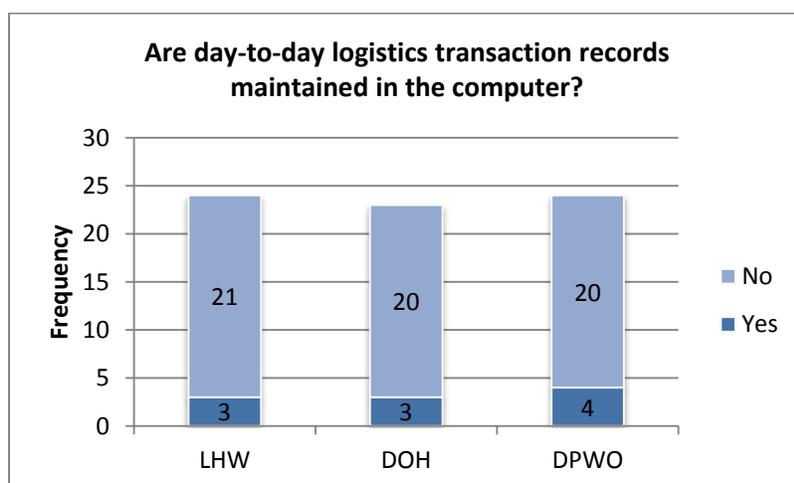
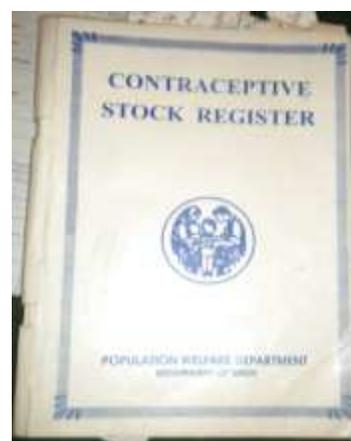


Figure 7. Are Day-to-Day Logistics Transaction Records Maintained in the Computer?



Overall Findings:

- The findings note that, for the DOH and the District Population Welfare Officer (DPWO) facilities, the availability of a computer for the storekeeper is less than ideal, assuming the storekeeper is primarily responsible for recordkeeping.
- From the LMIS perspective, it is worth noting that, in some districts, the role of data recording and maintenance is divided between the storekeeper and the statistical assistant. In some places, even the demographer has partial responsibility for recordkeeping. This challenge is particularly aggravated for the LHW program where, currently, the responsibility for recordkeeping is shared by different personnel. For example, at present, the accounts supervisor doubles as the storekeeper and is responsible for handling logistics data. However, reporting is the responsibility of the Assistant District Coordinator (ADC), who prepares the District Monthly Report (DMR).
- This arrangement directly indicates the need for LMIS deployment and subsequent training, because the person selected for operating the LMIS, subsequently, receives training on it.
- It appears that the overall organizational culture lacks standardized practices for recordkeeping (manually versus computerized). This challenge is particularly aggravated at the DOH, where, at present, there are no standardized practices for documenting logistics reporting. Some districts are following monthly logistics reporting system, while others report quarterly.
- The current documentation can be transferred to a computerized system because the reporting formats are standardized, in most cases, and the respondents consider them to be adequate.



DPWO—Badin

Pilot districts in RY Khan, Hyderabad, Karachi, and Lahore reported that their present computer system does not have the specification required to install the LMIS.

- While the information technology (IT) infrastructure is, more or less, present in most districts, the study identified maintenance as the main challenge. Prolonged electrical outages, coupled with inadequate backup support, are serious challenges to the IT-based solutions, in most districts. Moreover, outdated systems present additional challenges, particularly when deploying specialized software like the LMIS.

Table 4. Present Inventory

Population Welfare Department	Department of Health	Lady Health Workers
All 24 DPWO offices receive family planning commodities directly from the Central Warehouse Karachi, against the requisition, which is also sent directly from the district facility to the Central Warehouse & Supplies (CW&S). The periodicity of supply is almost standard: 21 out of 24 districts (88%) receive family planning commodities monthly from the CW&S. The exceptions are the districts of Azad Kashmir where supplies are received every 2 months.	Of the 24 districts visited, ICT and Rahim Yar Khan districts reported that they do not stock family planning items. The remaining districts receive family planning supplies from CW&S but they are routed through DPWO. (AJK receives from family planning AP, as well.)	The LHW program has a different pattern for supplying family planning products. The procurement is done at the provincial level and supply to centers is based on a quota system. Twenty-one districts receive supplies every quarter, while Rawalpindi and Karachi receive supplies biannually from their provincial program units.
Ten out of 24 districts (41%) distribute family planning items to the centers. In the remaining 14 districts, representatives of service delivery (SDPs) points collect supplies from the district store because they do not have a transport budget or available vehicles.	Out of the 23 district stores visited, only 3 district stores (13%) distribute family planning items to the SDPs. The main reason cited was the lack of funds under the Transportation of Goods Head and the Petrol Oil & Lubricants (POL) budget.	About 62% (15 district stores) supply family planning items to the centers. In the remaining 9 districts, representatives at the SDPs collect supplies from the district store. Availability of vehicle is better because LHS are allotted vehicles, which are used for distribution. While not dedicated, they can be used as needed for distribution.
Of the districts visited, 23 out of 24 have family planning items in stock at time of visit. Only Rawalakot did not because their supply was not received at the time of visit. Overall, some but not all sample districts reported incidents of stockouts during the recent period.	Of the district stores visited, 13 out of 21 (62%) had family planning items available in the storeroom at the time of the visits. Six districts (29%) had stockouts, while the other 2 DHO (10%) reported that they do not stock family planning commodities.	At time of visit, 20 stores have family planning items in their store.

Population Welfare Department	Department of Health	Lady Health Workers
Out of 24 districts visited, 4 had expired/unusable family planning items in the storeroom.	Karachi and Mardan had expired items in their store at the time of the field visit. The reason stated by Karachi DHO was that stock expired because they do not stock family planning products.	One district storeroom (Nowshera) had unusable stock. Storeroom and stock were destroyed by floods in 2010.
On average, 41 SDPs receive monthly supplies from one district store maintained by PWD.	On average, one district health office store caters to the needs of 31 SDPs for family planning items.	On average, one district LHW office store caters to the needs of 57 SDPs for family planning items.

Figure 8: Are Commodities Supplied at the Door Step of the SDP?

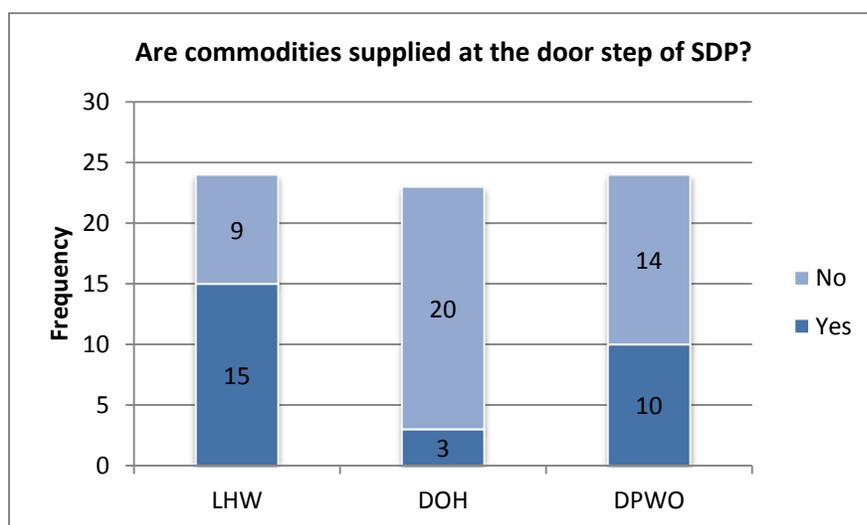
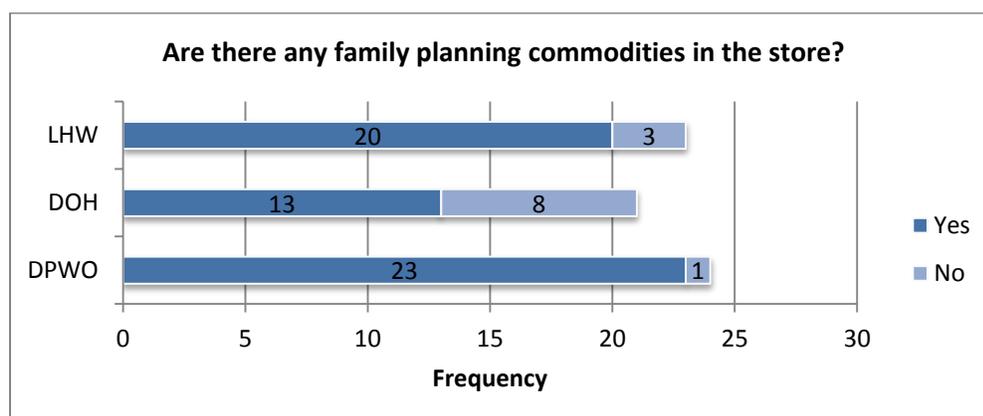


Figure 9. Are Any Family Planning Commodities in the Store?



Overall Findings:

- The findings showed that the supply of family planning items is linked to their availability, instead of their demand. Observations in the field also agreed with this finding. Most respondents complained that supply is usually less than demand. Some attribute this to the inadequate requisitioning by the district facilities; others attribute it to the overall shortage of family planning items that the country has had in the last few years. Reportedly, however, the overall family planning supply is now somewhat streamlined.
- The findings also note that, because of the particular arrangement by which family planning items are routed to the DOH through the DPWO, the DOH perceives that the DPWO, which have their supply as their priority, curtails the supply to their department. The field observations, however, do not support this view, because the separate Contraceptive Logistics Report (CLR)-6 (requisition form) and CLR-7 (contraceptive supply form) are generated for both departments.
- The findings indicate that transportation for distributing supplies is not a budgeted item, either at the store level or at the SDPs. The budget items related to transportation at the PWD currently are—
 - *freight charges*: The goods received from the Central Warehouse & Supplies (CW&S) are budgeted under this heading
 - *Petrol Oil & Lubricants (POL) budget*: The general budget heading used for onward distribution to the SDPs. This budget heading is inconsistent, because sometimes it is released quarterly and sometimes biannually. The amount budgeted also varies.
- The findings note that, in a few districts, there appears to be an irregular trend for the time that supplies go from the Central Warehouse to the District DOH. Contrary to the policy, whereby the DOH should receive supplies quarterly, two noteworthy cases were observed—one at Peshawar, where the DOH has not received any family planning items since January 2010; and the other at Nowshera, where the DOH has not received any family planning items since the July 2010 floods.
- The findings noted some interdepartmental coordination issues between the two key stakeholders: some officials at the DOH called it a *management issue* between the two departments. The DOH complains that the delays in supplies occur at the DPWO because the processing of forms is not done in a timely manner. The DPWO, on the other hand, believes that family planning is not a priority with the DOH, particularly for the lower-level officials. They complain that the delays in processing occur when the DOH submits incomplete requisition forms, which indicates their lack of interest and capacity.

Expired Family Planning Items: Case of Faisalabad

The DPWO store reportedly does not have the authority to dispose of expired products. Products that expired in 1981 were still in the store when the team visited. Karachi reported an oversupply (that could not be consumed) as the reason for the expired products.

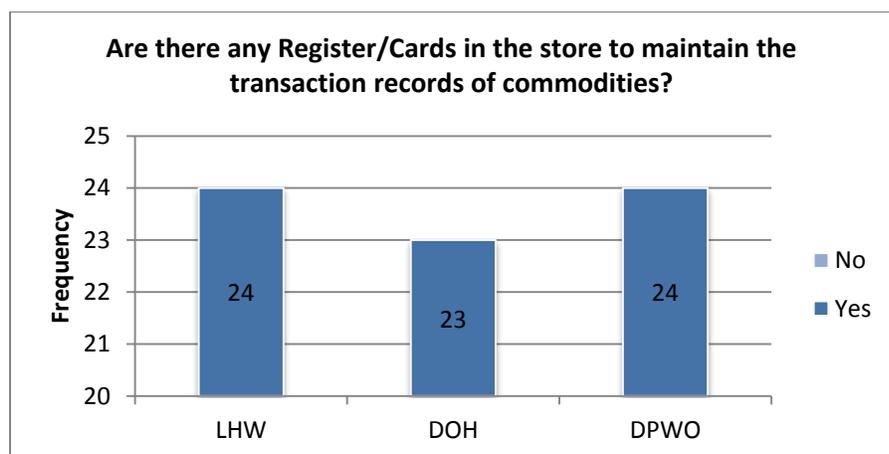


Improper storage in a district store

Table 5. Inventory Control

Population Welfare Department	Department of Health	Lady Health Workers
All districts have maintained data on stock registers and registers; they are updated at the time of a transaction.	All visited districts are maintaining data on stock registers.	All districts are using stock registers in storeroom to maintain the transaction records of commodities.
The storekeeper updates the logistics data in all 24 districts.	Out of 24 visited districts, for the records on stock registers, all but 3 districts have updated data (Islamabad, Lodhran, and Rawalakot). Entries were not made for the last few months.	Except for Peshawar, where the stock register was not updated, all other districts have updated their stock registers.
Present monitoring mechanism: DPWO verifies the store records. Monitoring mechanism is somewhat built-in because, to receive replenishment supplies, the SDCs must show the DPWO the sale proceeds.	In 19 districts stock registers are checked periodically by either EDO/DHO or store officer. Storekeepers at 2 districts (Mardan and Dadu) shared that their stock registers are not verified.	In all districts, the district coordinator for the LHW program periodically verifies the stock registers. Four districts reported that field program officer/logistics officer from PPIU also visits to verify stock records.
Most use printed invoice and issue/receipt vouchers that indicate the computer use.	Only 13 out of 21 (62%) visited district stores have printed invoices/issue vouchers to supply family planning items.	Most of the districts have printed invoice/issue voucher to supply family planning items. Only 2 districts (Islamabad and Rawalpindi) did not have printed forms.
Distribution plan from store to SDCs: In 21 out of 24 districts family planning items are supplied to SDPs, monthly. There is no set formula for distribution. Most report it as based on demand. If there is no demand, they distribute randomly, using the last 3 months consumption.	Disbursement to SDPs: A variable pattern for distribution was reported: 6 districts disburse supplies to SDPs monthly. Another 6 districts disburse supplies quarterly, while 2 districts distribute supplies to centers biannually. Six districts reported that they do not have a specific time schedule; supply is based on available stock in the district store.	Most of the districts (74%) stated they follow replenishment policy for distribution every quarter. Six districts (26%) stated that they do not have a rule/mechanism for distributing family planning commodities.

Figure 10. Are Any Register/Cards in the Store to Maintain the Transaction Records of Commodities?



Overall Findings:

In interviews with the team, the respondents at the provincial tier shared that the present role of the provincial tier in monitoring, particularly influencing or verifying supply and demand, does not exist, because the CW&S and the district facilitates handle it directly.

- The post-devolution scenario may change the current equation when more functions devolve to the provinces. The findings note that most of the stakeholders are not clear about the future roles and functions.
- The findings indicate that the stock data is being manually maintained. Some respondents expressed concerns about how to verify the manually maintained records. Others noted that monitoring could be strengthened, if computer-based data banks are maintained.
- The practice of data maintenance is strongly established in most of the districts; this creates a favorable environment for changing to computer-based data recording and maintenance. However, some major prerequisites—for example, IT infrastructural availability and maintenance; as well as staff capacity enhancement—will need to be addressed.
- The findings noted that no set formula and variable disbursement/distribution pattern is used from the store to the SDPs. While some cite demand as the main parameter for distribution, others share set periodic patterns practiced by the various districts.



LHW–Mardan

Administrative Issues: Case of the Lady Health Worker

The LHW program reported a shortage of LHW Monthly Report Forms & FLCF Monthly Report Form. Districts in Sindh said that printing material had not been issued to them for the last two years. Both forms are required for compiling the DMR or any other monthly report.

Table 6. Transportation

Population Welfare Department	Department of Health	Lady Health Workers
The general POL budget for the DPWVO office is sometimes used for distribution to the SDPs. The findings indicate that transportation for distribution of supplies is not a budgeted item either at the store level or the SDPs.	There is a general POL budget for the DHO that is sometimes used for distribution.	PPIU does most of the province-to-district store facility transportation; it is primarily tendered. But, the district office does not have a specific budget for transporting family planning commodities to SDPs.
None of the 24 districts have a specific transportation budget allocated for supplying family planning items.	In all DOH offices at the district level, no specific transportation budget is allocated for the supplying family planning items.	There is no specific budget for transporting family planning items. Primarily, the POL budget of either the district office or from LHS quota is used to transport family planning items to centers or centers collect the supplies from the district store.
16 districts are using departmental vehicles to supply family planning items to lower facilities. In the other 8 districts, centers collect supplies from the district office.	Only 3 district health offices distribute family planning commodities directly to the SDPs.	Fourteen district stores distribute family planning commodities to centers using their own transport; the other 10 centers collect supplies from the district store.

Figure 11. Is There a Yearly Budget for Transportation of Family Planning Items?

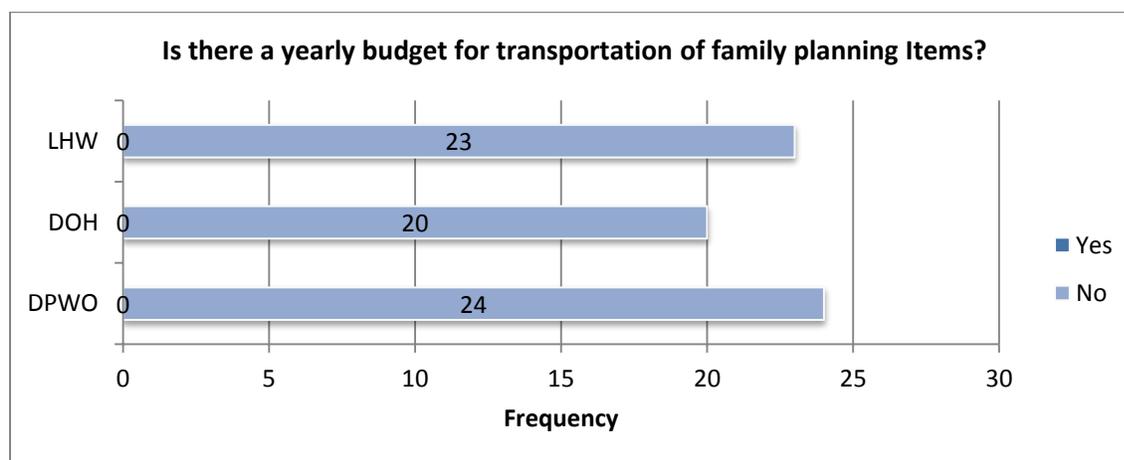
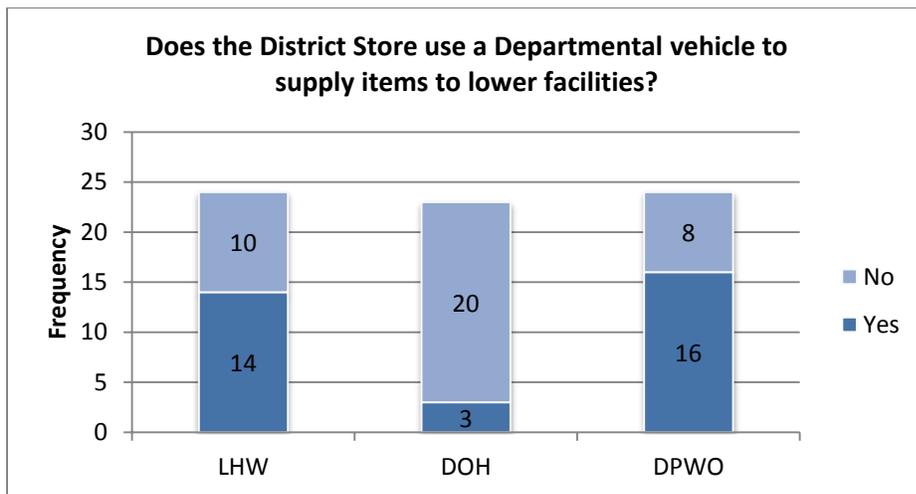


Figure 12. Does the District Store Use a Departmental Vehicle to Supply Items to Lower Facilities?



Overall Findings:

- The findings note that, within the distribution mechanism, transportation of commodities was the most significant challenge, because budgetary allocations have not been made. The various departments are managing it on an ad-hoc basis.
- It is also noteworthy that, while this is articulated as a main challenge in the present SCM, the departments do not appear to have any proactive policy advocacy for budget enhancement.

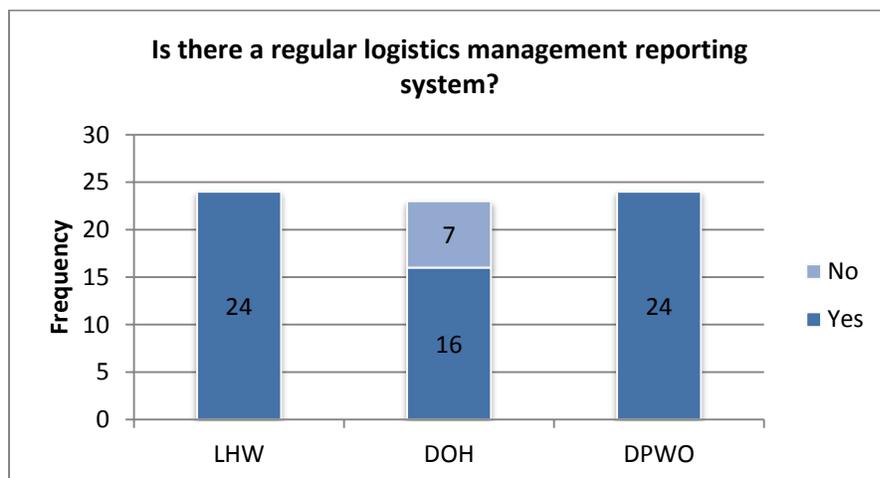


Mobile Service Unit—DPWO—Swabi

Table 7. Reporting

Population Welfare Department	Department of Health	Lady Health Workers
<p>All 24 districts have a regular monthly logistics management reporting system in place. (CLR– 15. Standard–monthly) Available formats are considered adequate for reporting.</p>	<p>Lack of standardization in logistics reporting frequency and formats. Seven districts reported that there is no regular logistics reporting system; 14 districts mentioned that a regular logistics management reporting system is in place.</p>	<p>Two logistics management reporting systems are in place. One is the LHW-District Monthly Report, which is compiled using LMIS (LHW-Management Information System). It has a section on family planning and on logistics, which is used to analyze monthly supply, demand, and usage of family planning items in a district. The findings, however, indicate that in many districts the logistics section of DMR is not filled. Another report that is used for logistics reporting is the District Quarterly Inventory Report and Request for Commodities. This report is completed every quarter.</p>
<p>Statistical assistant prepares a CLR-15 based on reports sent by the SDP. The DPWO approves the CLR-15 and sends it to the provincial headquarters.</p>	<p>Storekeeper is responsible for preparing monthly/quarterly EDO Office Contraceptive Performance Report.</p>	<p>ADC is responsible for preparing DMR, which is compiled monthly. This report is forwarded to the provincial coordinator LHW-PPIU. In 5 districts, it was shared that ADC prepares the DMR. In remaining districts, the storekeeper does all the reporting.</p>
<p>Eight districts (33%) report receiving feedback from the M&E section of the DG office. Reportedly, it was documented but a copy was not available.</p>	<p>Five districts (24%) reported an informal feedback system; the DG office/EDO provides verbal feedback. There is no documentation.</p>	<p>Nine districts (39%) reported on the submitted reports that a feedback system is in place. The provincial coordinator for the LHW program provides the feedback.</p>

Figure 13. Is There a Regular Logistics Management Reporting System?



Overall Findings:

- The findings note that reporting is a weak area within the DOH; the format and frequency of reporting is not standardized. The DPWO and LHW appear to be more organized in terms of reporting.
- Monitoring and verification of records is also weak in the DOH.
- In most cases, feedback is not substantive and does not follow a set periodic pattern; it is primarily shared during data spikes.



Family Planning Stock Register—DOH—
Khushab

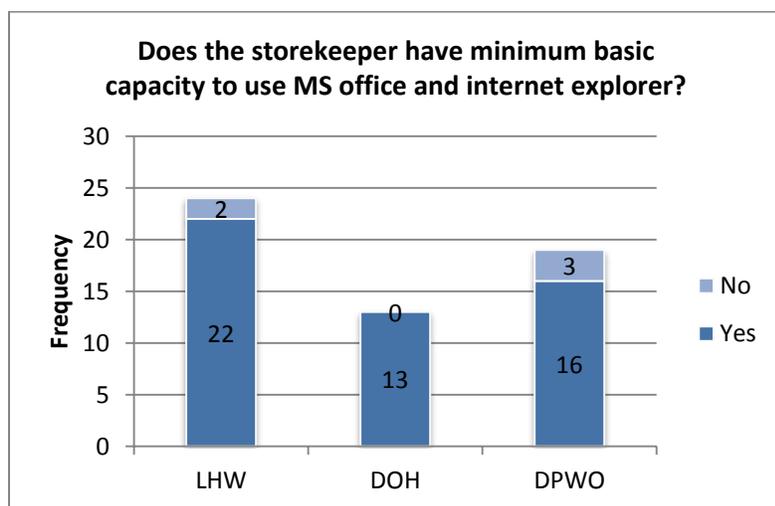
Sl. No	YEAR	CONDOMS	ORAL PILLS	INJECTION	IUCD	CO-CASES	STERILIZATION	STERILIZATION	TOTAL
1	2010	5085	2243	1573	681	83	1789	497	4158
2	2010	4622	1865	247	525	75	2541	1187	3340
3	2010	50494	25211	1017	525	58	1121	1352	3457
4	2010	5494	2023	824	584	45	1773	1302	3244
5	2010	50418	1902	1221	400	27	1145	1172	2567
6	2010	49225	1568	1223	485	41	1312	1242	2366
7	2011	51578	2109	1354	744	77	1365	1522	4236
8	2011	5524	2176	864	573	88	1113	136	4163
9	2011	47328	2180	1100	573	88	1113	1322	4835
10	2011	46337	2244	1089	573	88	1113	1244	3422
11	2011								
12	2011								

Contraceptive Performance Chart—DPWO Lodhran

Table 8. Human Resource

Population Welfare Department	Department of Health	Lady Health Workers
Computer operators at 16 district offices can use basic MS Office.	Of 13 stores with computers, all 13 storekeepers reported being able to use basic MS Office and the Internet.	Of the 24 storekeepers visited, 22 can use basic MS Office and the Internet.
In 15 districts, the storekeeper post is vacant. The lower division clerk and upper division clerk are working with additional responsibilities.	Out of 21 district stores visited, 20 district storerooms have dedicated storekeepers.	In 2 districts, positions related to stores and logistics are vacant. In 22 districts visited, there was a dedicated storekeeper. In Islamabad, the LDC was additionally responsible for locking storeroom.

Figure 14. Does the Storekeeper Have Minimum Basic Capacity to Use MS Office and Internet Explorer?



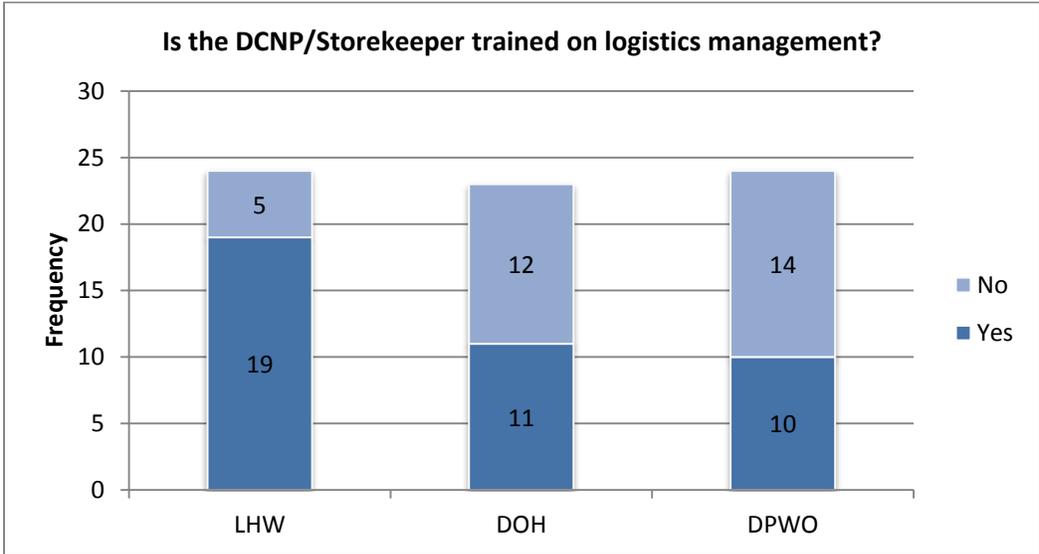
Overall findings:

- At the PWD, the findings indicate a shortage of dedicated store personnel in more than half the sample districts.
- The LHW program complained that they are understaffed and over-burdened with multiple responsibilities.

Table 9. Training

Population Welfare Department	Department of Health	Lady Health Workers
Storekeepers from 10 districts (41%) are trained on logistics management. Three attended USAID's recent training .	Eleven district storekeepers of the districts visited (47%) are trained on logistics management.	Nineteen districts storekeepers out of 24 visited, (79%) are trained on logistics management.
Eight out of the 10 district storekeepers showed interest in receiving a refresher course.	All 9 trained storekeepers asked for a refresher course.	Fifteen district storekeepers suggested that they need a refresher training course.
Fourteen district storekeepers who are not trained expressed a need for training on logistics management and orientation on reporting formats and handling stores, etc.	In the remaining 11 district health offices, 9 storekeepers expressed a desire to receive training, while 2 (Mirpur Khas and Karachi) did not express an interest.	Six district storekeepers who have not received training on logistics management expressed a willingness to be trained in a variety of areas.
Logistics handling, logistics reporting, and training on LMIS were identified as key areas for training.	Logistics management, store handling, reporting structures, and computer usage were identified as key areas of training.	Logistics and supply chain management, store and medicine handling, management information system, logistics reporting, LMIS, demand projections and supply distributions, and store and logistics management were identified as key areas of training
Recommendation for training duration and venue: Short duration (3–6 days): 46% 7–15 days: 34% One-month certification: 13% 33% onsite training, 53% offsite training, others have no preference.	Short duration (3–6 days): 66% 7–15 days: 9.5% One-month certification: 14% 33% on site and 67% prefer offsite	Short duration (3–6 days): 72% 7–15 days: 13.5% One-month certification: 9% 17% onsite, 83% offsite

Figure 15. Is the DCNP/Storekeeper Trained on Logistics Management?



Analysis and Discussion

This section presents an analysis of the assessment findings. For an in-depth analysis, the SCM is set in a larger policy context to connect the micro-level findings with the larger picture, as well as to identify key leverage points that could improve the in-country situation, based on the study findings.

Family Planning In Pakistan—The Historical Perspective

More than five decades earlier, Pakistan started one of the earliest family planning programs in Asia; they received intermittent support from international donors, including the United States. Despite this history, fertility has declined more slowly in Pakistan than in most other Asian countries. Related measures of maternal and child health are a concern, as well; the country's infant mortality rate of 75 deaths per 1,000 live births is higher than in Bangladesh, India, Nepal, and Sri Lanka. In 1950, Pakistan had a population of 37 million people and was the world's 13th largest country, measured by population. By 2007, Pakistan was the 6th largest country, with 164 million people. The United Nations predicts that Pakistan today, with 292 million people, will move to 5th place in 2050; after India, China, the United States, and Indonesia (United Nations Population Division 2007).

Where is the Population Program in Pakistan Going?

The Population Policy 2002 had several notable targets to broaden responsibility for service delivery, amass resources, provide universal access to family planning services by 2010, and reduce the fertility rate to the 2.2 replacement level by 2020.

Results from the 2006–2007 Demographic and Health Survey (DHS), however, showed that Pakistan's fertility rate had remained persistently high during the past decade. The total fertility rate (TFR) in Pakistan stood at 4.1 children per woman. This, coupled with an unchanging contraceptive prevalence rate (CPR), at 30 percent, presented a dismal picture of progress toward the ambitious milestones set out in the policy.

By the end of 2009, there was a strong move toward a new Population Policy 2010, which was gaining cabinet approval and included the latest projections incorporated by the planning commission. This started with several shifts on the ground, such as the new National Finance Commission Award, the 18th Constitutional Amendment; and, primarily, the slow recognition that Pakistan was not meeting its objectives from the earlier 2002 policy.

With the above as the backdrop, the present study attempted to capture the overall policy environment, the evolving context for implementation following the process of devolution, as well as the institutional challenges that have direct and indirect implications for the supply chain management of family planning commodities in the country.

Capacity gaps in filling out requisitions forms and delays in filing them result in supply/demand mismatch. PWD Representative

1. Leaks in the Pipeline: The Supply Side of the Story

Many factors contribute to the dismally slow progress toward meeting the programmatic targets set out in the population policy. While the demand side of the issue has many challenges (social and cultural barriers, etc.), the supply side of the issue has not met its goals. This is obvious from the high percentage of unmet needs (currently estimated at about 30 percent). Pakistan's low CPR has been attributed to several factors, including insufficient public sector supply of family planning services, as well as inconsistent availability of contraceptives. The assessment findings from this study echo the concerns expressed in various policy discussions in the country.

The assessment findings indicate the various gaps in the supply chain that stem from a range of issues—including the present institutional arrangement—with overlapping responsibilities shared by both the DOH and DPWO; a lack of institutional commitment to prioritize family planning, particularly outside the DPWO; as well as obvious capacity issues shown by the quality of supply requisitioning and recordkeeping.

Despite the fact that Pakistan is the only country in the region that has consistently made PSDP allocations for contraceptive procurements (especially between 2001–2009), the issue of an insufficient supply of family planning commodities has persisted, indicating that the *leak* in the pipeline lies somewhere else. The assessment findings note that it is the weak distribution system, marked by inconsistency both in terms of timing and quantity supplied, which leads to erratic supply patterns at various levels of the supply chain. The findings indicate that there is no standardized practice and different districts follow variable distribution patterns. Even within the same district, distribution patterns vary among the three stakeholders; for example, the LHW program follows a quarterly replenishment policy, while the Planning and Development Division follows a monthly distribution plan.

The analysis reveals that, while the weak distribution mechanism can be attributed to many reasons, two particular reasons stand out: (1) a general lack of understanding of the supply chain continuum among the stakeholders and, therefore, a lack of attention to the weak links; as well as (2) a lack of institutional commitment by various stakeholders for prioritizing family planning.

While the first reason relates to capacity issues (it is discussed in more detail in subsequent sections), the second reason should be examined in the larger context and the prevailing policy situation. The demography of Pakistan and population policy have been only the responsibility of a particular ministry and a handful of professionals and organizations, with little role built in for other relevant and critical stakeholders. This has caused the health sector to limit their delivery of family planning services, in general; and the departments of health, in particular. The prevailing policy appears to create a population-health disconnect by compartmentalizing population planning as a separate domain instead of mainstreaming and linking it to the health policy. The findings from the field agree with this, stating that the population planning is not a priority within their sector. This was expressed by a stakeholder from the health department, who termed family planning products as *not lifesaving...we have other priorities to attend to*.

Given the present scenario, the devolution can be an opportunity to fill the gaps in the supply chain by focusing on building capacities and streamlining functions among the various stakeholders. At the same time, however, it can be a challenge, given the degree of uncertainty and unpreparedness, further aggravated by a lack of communication and coordination that is obvious with the various stakeholders at this time.

2. Family Planning—Case of Shifting Funding Priorities:

- Funding for the health sector has increased in terms of absolute numbers during the past few years, but as a percentage of the gross domestic product (GDP), it has consistently remained below 1 percent throughout the past 10 years; 3.5 percent is recommended. Insufficient funding for health usually results in poor quality of service delivery because of the lack or failure of equipment and supplies, and insufficient staff. Furthermore, even the allocated funds are released late and are less than expected.
- The analysis reveals that, as the overall funding allocations for health remain low, components, especially those for family planning, are relegated to lower priority areas. This downward spiral effect has resulted in, at the district level, priorities being pushed further back as competing demands vie for their share of the meager financial allocations.

The assessment findings note that this is particularly true for the less *visible* components, particularly in the case of SCM. A good example is the transportation of family planning commodities, which a majority of respondents in the DOH, as well as the LHW program, cited as the biggest challenge within the distribution mechanism. At present, there are no allocations for transportation costs for family planning items in the department's budget. In most cases, the transportation of items is being managed on an ad-hoc basis. As a result, it depends primarily on the efficiency of the SDPs that collect the family planning items from the district stores.

It is also noteworthy that, while this is articulated as a main challenge in the present SCM, the departments have not made any proactive policy advocacy for budget enhancement.

The analysis reveals that, on the macro level, the overall funding for the family planning program—particularly from the donor community that contributes a significant share to the sector—has suffered a setback in the recent years as their focus has been *shifting in favor of reproductive health, in general, and HIV/AIDS, etc., in particular; and, therefore, away from family planning.*

Since 2003, the funding flows have started to increase from USAID, *Kreditanstalt für Wiederaufbau* (KfW), and the United Nations Population Fund (UNFPA), with the Department for International Development (DFID) providing budgetary support through the Ministry of Finance. Reproductive health has had major spikes in donor funding, but it is obvious that this has been for maternal health and not for family planning, which has largely remained flat.

3. Missing Links: Linkages and Integration among Relevant Stakeholders

The Population Policy, initiated in 1998 and passed by the Cabinet in 2002, was a statement supporting a commitment to population issues. The principles were strong but implementation details were weak.

Essentially, elements of the policy underscored the need for an expeditious completion of the fertility transition, good intersectoral links, and coordination with development programs. Unfortunately, while working on the fertility decline, little attention was given to exactly how this would happen and the resources it would require. Once again, things were done the way things had always been done, with some increase in number of outlets and workers. Very little attention was given to details of coordination between the two mainline ministries of health and population welfare; with their respective provincial departments that are mandated to deliver services; or with the overall health system and other relevant programs, including the LHWs.

The hybrid institutional arrangement resulted in the failure of the MOH and the health establishment to accept any share of responsibility for outcomes in population. The evidence is striking, as noted by the assessment findings in the stockouts, erratic distribution patterns, and general attitude of indifference in dealing with family planning. The findings reveal that, within the health department, the LHW program is mainly seen as being responsible for the family planning.

During the field visits to the DOH, the health department often referred the assessment team to the LHW representatives, who stated that the LHW was the relevant stakeholder for this assessment, and they were not.

The literature review by the assessment team reveals that the LHW program was very effective in delivering family planning services in 2001 (Oxford Policy Management 2002) because it directly addressed the issue of women's access to services and women's mobility in the cultural context. However, in a later third party evaluation, it appeared that staff were faltering in providing these services because they were overloaded with other duties, particularly because of the deteriorating primary health care services in the country.

The MOPW, on the other hand, administers family planning through a system parallel to (instead of integrated) the MOH's primary care system. The present institutional arrangement, rather than leveraging the existing network of primary health facilities (more than 15,000 in number), instead runs a parallel system that does not have enough facilities.

Many factors, including inadequate intersectoral coordination and lack of functional integration with the key stakeholders, has meant limited outreach; limited consensus; lack of innovation; and, therefore, has had minimal impact on the program. The situation appears to be less hopeful for the future, when the central drivers—the two key ministries—are devolved to the sub-national level, without a clear phased plan. The following section covers this in more detail.

Post-18th Amendment—The Proposed Plan

Since 2002, the service delivery of the Population Welfare Program has been under the administrative control of the province. Now, under the 18th Amendment, the provincial governments have to implement the whole Population Welfare Program, but the federal government will be funding the program during the currency of the four years. During 2011–2012, Rs 4.1 billion was reserved for the federal program, against the capped allocation of Rs 3.3 billion last year. With a view to continue mainstreaming the population factor in the overall national development planning of the country, the functions of the Ministry of Population Welfare like policy, planning, population projections, research and coordination, etc., have been given to the Planning & Development Division. Four organizations/institutions have been shifted to the Planning & Development Division; including the National Institute of Population Studies (NIPS), National Trust for Population Welfare (NATPOW), National Research Institute of Fertility Care (NRIFC), and Central Warehouse & Supplies (CW&S) Karachi.

Collaboration and integration with the DOH is very important in order to maximize cooperation that will ensure the availability of family planning items at the service delivery levels. PW does not want to work in isolation, but a forum is required to revisit and foresee the post-devolution situation and to reorganize and improve the existing service delivery. DPWO Representative

4. Post-18th Amendment Scenario and Its Impact on Supply Chain for Family Planning Items

In the pre-18th Amendment scenario, the MOPW was responsible for providing family planning services for more than four decades. Now, this will drastically change because the provincial departments of health will be solely responsible for providing services. There may be challenges as this takes place, because the provinces do not have enough funds, and are not yet equipped to assume the provision of family planning services in such a short timeframe.

Some of the challenges are presented below:

The federal and provincial structures of both the population welfare and health are similar. Both, until recently, had ministries at the federal level; both have provincial departments headed by secretaries; director generals oversee field operations. Both have districts as the administrative unit, and Tehsil (sub-district level) as the sub-administrative unit; and both have their service outlets in the field. Despite these similarities, the way both sectors function is quite different; as a result, any merger/integration may be difficult.

Funding priorities of family planning commodities might vary among the provinces in the post-devolution scenario. For instance, KPK and Baluchistan share the same group psychology. If the family planning commodities are donated, the program will not be affected. But, if they are to purchase them, it will become a lesser priority, unless there is political commitment and lobbying.
Representative of LHW Program

First, the two sectors have different funding sources and different channels of fund flows and controls. The Ministry of Population Welfare uses federal funds to finance the entire population sector, down to its service outlets in the districts. The flow of funds goes through special channels, which are different than the normal channels of the provinces and districts. Health, on the other hand, is funded by federal funds at the federal level, by provincial funds at the provincial level, and by allocated provincial funds at the district level; local funds are also allocated at the district level.

Unlike population, resource allocations in health at the provincial and district levels are independent of directives from the MOH. The funding mechanisms for health and population, therefore, follow separate channels, and have different arrangements.

In an opposite situation, population has hierarchical continuity—from the MOPW to the PWD to the districts in planning, program formulation, and implementation and monitoring. The health sector does not have this continuity.

The DOH design their own programs without directions from the MOH; similarly, the district governments determine their own priorities without considering the provincial priorities, even if they exist. Both complicated stand-alone arrangements would hinder an institutional merger.

As shown by the findings, both population and health are reluctant to consider a merger. A merger threatens the careers of staff in the Ministry of Population Welfare; they are likely to resist if the current situation is challenged.

The study findings also indicate communication gaps between various stakeholders, lack of consultation on the way forward, and lack of stakeholders buy-in for the current devolution process. The LHW sees major challenges because their program funding would be transferred to the provincial health budgets. As a respondent put it, *“there is no ownership of the National Program at the provincial level. The continuity of the program really depends on how seriously provinces want to take it up.”*

5. Lack of Data-Driven Information System:

The health information system in Pakistan does not provide the much-needed management support. The assessment findings echo this observation. The assessment findings show a lack of standardized recordkeeping practices across the three institutions in the study. The reporting formats, as well as the frequency of reporting, are not standard, particularly for the DOH. The assessment notes that, in most facilities, while store records are maintained, they are either insufficient for decision making or they do not relate to any policy.

There is no budgetary provision for maintenance/ up gradation of software system. Representatives of DOH and PWD

The day-to-day recordkeeping is almost always done manually; computerized records are maintained only for invoicing or periodic reporting. The findings, however, note that the practice of data maintenance is well established in most of the districts, creating a favorable environment for a move to computer-based data recording and maintenance. However, some major prerequisites, like IT infrastructural availability and maintenance, as well as staff capacity enhancement, will need to be addressed.

The study findings note that the producers and users of data at each level of the health care system appear to disagree about the information needed. For the SCM, this presents additional challenges because the information required is not synchronized with the supply chain, leading to an unequal supply-demand.

An effective supply chain management has information integration as its foundation. It is not just about the flow of commodities; it is as much about information flow, which seems to be missing in the present state of family planning supply chain in the country.

The findings also indicate that the monitoring and feedback system is disjointed among various levels, is insufficient and underperforming; and, therefore, does not contribute to planning and decisionmaking. Most of the respondents at the district level complained that they do not receive any substantive feedback on their periodic performance reports. Stakeholders at the provincial tier maintain that the present information system does not give them the *evidence base for decision making* or help them with *real time monitoring*.

6. Hardware versus Software: Case Against Investing Only in Infrastructure

The assessment findings indicate that while showing the way forward, most respondents note the woeful state of the present infrastructure, particularly the inadequate storage facilities and availability of IT infrastructure, etc. This thinking resonates with the prevailing development paradigm that *brick and mortar* is the way forward for the state when it delivers on its social contract with the citizens. The overemphasis on the physical infrastructure at the cost of investment in the *soft component*—human resource development—appears to be the main factor hindering sustainable growth and improvement, particularly within the context of this assessment.

Planning Commission: Growth Strategy

The current narrative of growth needs to shift to a new narrative that drives us beyond excessive focus on building infrastructure and overly diversified public investment, and toward the pillars of 'new growth theory'—i.e., toward productivity (improving returns /yields) of assets and all factors of production and efficiency (producing goods and services cost effectively).

The findings also note that in the post-18th amendment scenario, where issues of HR capacities will pose bigger challenges compared to infrastructure availability, the fiscal priorities at the provincial level still favor upgrading the physical infrastructure to investing in HR.

There is no budgetary provision for maintenance/ up gradation of software system. Representatives of DOH and PWD

The findings reveal that the infrastructure availability and adequacy are relatively minor road blocks compared to the major deficit in the competencies, availability, and capacity of those who run the system. The following section covers this aspect in more detail.

7. Addressing the Competency Gaps: Investing in HR in Supply Chain Management

In the context of the overall health system in Pakistan, it has been observed that the present paradigm is based on investing more in developing medical service providers, doctors, nurses, paramedics, etc., rather than on developing the cadre which is responsible for health management system and its implementation.

The global experience also indicates that global health has focused on disease and population-specific programs; while health systems have been neglected for decades, resulting in significant underperformance of the service delivery mechanisms.

The shifting realities of globalization, population growth, demographic, etc., transitions and the rapid evolution of communication, and information technologies pose key challenges for health leaders, as well as service providers at all levels.

There is a growing realization that to strengthen the service delivery in the health sector, new skill sets are required; including health economics, health policy, technology management, and supply chain management.

In the context of the supply chain management, the problem encompasses both demand and supply factors. On the one hand, the demand for specialized supply chain personnel is almost negligible. The assessment findings indicate that supply chain or logistics management in the public health sector is not yet considered an area worth special focus or investment. At best, it is described *as one of the things* that health managers undertake as part of their responsibilities, at different tiers. The assessment findings reveal that a few personnel associated directly with family planning supply chain management have received any specialized or formal trainings in this area. The findings also note that the demand articulation for capacity enhancement in this area is almost absent.

On the supply side, it is worth noting that logistics management, in general, and supply chain management, in particular, are not offered as specialized courses in most health sector education facilities, including training institutions run by the health department and others. A few private institutions offer specialized programs in this area, but they are (a) not contextualized to health sector, (b) too few in number, and (c) too costly for the mainstream workforce.

Supply is not linked with demand... instead, it is based on availability of products. DOH representative

8. Moving Toward a Demand-Driven Supply Network

The review of available research and statistics on CPR reveals a large gap that indicates unmet need. Increased demand responsiveness requires a *demand-driven supply network* and a transformation from a push to a pull operation. Collaboration and a closed-loop planning environment requires clean synchronized data that seems to be missing at the various tiers in family planning. The assessment findings indicate disperse data; divergent reporting patterns; breaks in the pipeline, due to information gaps; and information disintegration.

Many of the study respondents have echoed similar thoughts. They maintain that the absence of a demand-driven supply chain serves as a *disincentive* affecting the quality of service delivery. The fixed quota or replenishment model currently followed, particularly by the LHW program, cannot measure the consumption patterns; and, thus, cannot provide the much-needed evidence base for influencing policy.

Our quantification system is flawed based on quota rather than consumption pattern.
LHW representative.

Recommendations

1. Devolution—Going for the Opportunity

The year 2010–2011 will probably be a defining one for family planning programs in Pakistan. With the enforcement of the 18th Amendment, the MOPW, the key driver of family planning programs in the country for over 40 years, stands devolved to the provinces.

Amid the challenges of devolution, however, there is also an opportunity to address the institutional separation of health and family planning that has led to marginalization of the latter from the mainstream health programming in the country. Once devolved, the services will fall under the provincial scope, thus paving the way for improving service delivery by leveraging the vast network of facilities administered by the DOH. This is also an opportunity for the health sector to incorporate family planning as a priority in its mandate.

To better implement devolution, efforts should be made to improve managerial and planning skills at both the district- and provincial-levels by developing capacity and providing technical expertise and knowledge transfer. It is also critical that changing roles and responsibilities, due to devolution at the three levels be recognized; and, to enhance the quality of service delivery, following it with the appropriate institutional, technical, and managerial restructuring at all levels.

2. Reaching out to Relevant Stakeholders

The assessment findings note that the focus on family planning as a separate functional responsibility designated to an institution (i.e. Population Welfare Departments) has enabled the much needed political commitment to stay on course vis-à-vis policy targets. However, it has also led to a reduced focus on family planning by other key stakeholders e.g. Departments of Health.

The first step to redress this issue includes a re-integration of the population and health departments in providing quality family planning services, and the establishment of a link between family planning outcomes and indicators for growth, poverty reduction, and development.

The case for prioritizing family planning needs to be strongly advocated to a range of stakeholders, including the Planning Commission and the Ministry of Finance, as well as health sector institutions—the DOH and the two vertical programs, LHW and MNCH.

Following a sharpened policy focus, administrative and governance issues, particularly the SCM, can be addressed at the micro level. As the assessment findings indicate, these relate to requisitioning, procurement, and supplies of family planning items. To this end, greater coordination is required at the service delivery level among the two key departments.

It is also important to recognize and tap into the functional complementarities that the two vertical programs, the MNCH and the LHW offer to the mandate of family planning.

3. Investing in Human Resources

As indicated by the assessment findings, capacity gaps particularly in the context of SCM, continue to hinder the quality of service delivery. Targeted initiatives, focusing on both improving the supply of and demand to build the managerial and leadership capacities of the health managers, are required. The assessment findings note skill shortages at various operational tiers, highlighting the need to explore a continuum of capacity enhancement interventions through pre-service and in-service training programs, as opposed to sporadic, one-off training programs.

4. Ensuring High-quality Supply Chains Using a Well-designed LMIS

The assessment findings noted a difference between the information needs and the present data collection and maintenance practices. Many of the *leaks* in the supply pipeline, particularly relating to weak distribution mechanisms, stockouts, etc., can be filled by supporting the necessary investment in a strong logistics management information system. This must be complimented by strong advocacy to invest in the public health supply chain, including trained personnel, as well as the required infrastructure and equipment. A well-designed, data-driven information system can strengthen the monitoring function which is currently deemed weak. It can greatly enhance the efficiency of the supply chain by ensuring information integration, as well as timely reporting.

5. Incremental Shift Toward Functional Integration, Starting with the Supply Chain

The policy drive for greater functional integration, particularly between the population and health sectors, as envisioned by the Annual Plan 2011–2012 by the Planning Commission² aims to improve operational efficiency and improve quality of the service delivery of the public health sector. As the present institutional arrangement moves toward an integrated model, the logistics situation can become increasingly complex, warranting special attention. In integrated supply chains, there is a risk that the family planning items will be *sidelined*, compared with other essential drugs. For a smooth transition to an integrated supply chain for family planning items, therefore, it is essential to upscale the management and personnel capacity of the supply chain managers, complimented by a well-designed LMIS.

It is important to note that, while the present transition toward devolution is not without its challenges, this is also a time where creative ways can be used to improve service delivery relating to health, in general, and in family planning, in particular. Supply chain integration can begin with common areas within health and population sectors such as storage and transportation. This can be a starting point for an incremental shift toward complete functional integration.

² Annual Plan 2011–2012, Government of Pakistan, Planning Commission, Planning and Development Division, June 2011

References

- Government of Pakistan. 2011. *Pakistan's new growth framework*. Islamabad: Government of Pakistan.
- Gribble, James. 2010. *Contraceptive Security for Policy Audiences—An Overview*. Washington, DC: Population Reference Bureau.
- Gribble, James, and Donna Clifton. 2010. *Supply Chain: Getting Contraceptive to Users*. Washington, DC: Population Reference Bureau.
- Hardee, Karen, and Elizabeth Leahy. 2008. *Population, Fertility and Family Planning in Pakistan: A Program in Stagnation*. Washington, DC: Population Action International.
- International Planned Parenthood Foundation. 2008. *Contraception at a Crossroads*. London: International Planned Parenthood Foundation.
- Kuehn, Martin. 2010. *Mapping Reproductive Health Supplies in the Asia and Pacific*. Hannover, Germany: German Foundation for World Population.
- Nishtar, S., S. Amjad, S. Sheikh, and M. Ahmad. 2009. *Synergizing health and population in Pakistan*. Islamabad: Journal of Pakistan Medical Association.
- Oxford Policy Management 2002. *Third Independent Lady Health Workers Program Evaluation*. Islamabad: Pakistan. Oxford Policy Management Institute.
- Pilz, Kevin, and Alan Bornbusch. 2008. *Contraceptive Security—Ready Lessons II*. Washington, DC: United States Agency for International Development.
- The Rockefeller Foundation. 2008. *Strengthening Health Systems Capacity and Leadership*. Meeting White Paper. Bellagio, Italy. October 27–31, 2008. New York: The Rockefeller Foundation.
- United Nations Population Division. 2007. *World Population Prospects: The 2006 Revision*. New York: United Nations Population Division.
- United Nations Population Fund (UNFPA). 2009. *State of World Population 2009*. New York: UNFPA.
- Zaidi, S., S. Shafqat, A. Sayeed, and L. Khowaja. 2010. *Landscaping Health Financing Works in Pakistan*. Islamabad: Pakistan Health Economics Network and EMRO-WHO.

Annex I: The Assessment Tools

Following are the assessment tools for the three stakeholders:

A: Department of Health

District

Logistics System Assessment Instrument

(DOH)

Name of District: Date of Visit:

Office:

Name of EDO:

Phone & Mobile Number:

Email Address:

Name of Storekeeper/Store-in-Charge:

Demographic Info: (This information will be obtained from the District Population and Development Profiles developed by National Institute of Population Studies [NIPS])

Population: _____ (source)

Other details:???

Total # of service delivery points (SDPs)/facilities (by location/type). Ask for list of SDPs with possible addresses.

Nongovernmental organizations (NGOs) (names and #s) receiving supplies from this facility. Ask for list of NGOs.

Sl. #	Area	YES	NO	Comments	
A: Physical facility					
A.1	Is the EDO office located in the government's building?			If YES, skip to A.3	
A.2	Is the EDO office located in the rented building?				
A.3	Does the building have a dedicated storeroom?				
A.4	What is the size (length & breath) of the storeroom?	Length: ft, Width: ft, Height: ft.			
A.5	Is there a separate storeroom or a separate place within the store for family planning commodities/medicines?				
A.6	Does the storeroom has pucca structure (built of brick, sand, and cement, mentioned specifically)?				
A.7	Are the walls and roof strong? (observe)				
A.8	Is the floor and roof dry? (observe)				
A.9	Are the doors and windows strong enough?				
A.10	Are there ceiling fans in the storeroom? (observe)			If NO, skip to A.12	
A.11	If YES, how many and are they in running condition?				
A.12	Are there exhaust fans in the storeroom? (observe)			If NO, skip to A.14	
A.13	If YES, how many & are they in running condition?				
A.14	Is periodic pest control provided in the storeroom?			If NO, skip to A.16	
A.15	If YES, when was the last pest control done?				
A.16	Is there adequate storage equipment (rack, shelves, dunnage, Almirah) in the store? (observe)			If NO, skip to A.20	
A.17	If YES, how many?				Quantity
				Rack	
				Shelves	
				Almirah	
				Dunnage	
				Trolley	
				Others	
A.18	Is the equipment in good condition?				
A.19	What is the size of equipment?		Length	Width	Height
		Rack			
		Shelves			

		Almirah				
A.20	Is a fire extinguisher in the store and in working condition?			If NO, skip to A.22		
A.21	If YES, how many?	F. Extinguisher:	Bucket:			
A.22	Is there a cold room or freezer/refrigerator in working condition for storing laboratory chemicals, reagents?			If NO, skip to B.1		
A.23	If YES, what is the size of the cold room or number of freezers/refrigerators.	Cold Room: Length:	Breath:	Height:		
		No. of freezers:		No. of refrigerators:		

B. Computerization:						
B.1	Is there a computer with a printer, uninterruptible power supply (UPS), etc., in working condition?			If NO, skip to B.11		
				Items	Qty	Condition
				Computer(s)		
				UPS		
				Printer(s)		
				Scanner(s)		
B.2	Specifications of computer	Item	Comp.1	Comp.2	Comp.3	
		Processors Technology				
		CPU speed				
		RAM				
		Hard drive				
		CD/DVD ROM				
		Network card				
B.3	Is computer network installed?			If NO, skip to B.5		
B.4	If YES, is it wired or wireless?					
B.5	Is Internet connectivity available in your office?			If YES, skip to B.7		
B.6	Is Internet connectivity available in your region?			If NO, skip to B.8		
B.7	If YES, what type of Internet (either in the office or service provider Internet packages)?			Internet	Speed	
				Dial-up		
				ISDN		
				DSL		
				Wireless DSL		
B.8	Who operates the computer for entering logistics data?					

B.9	What is the computer used for?			
B.10	Does the operator have minimum basic capacity to use MS Office and Internet Explorer?			
B.11	Are day-to-day logistics transaction records maintained in the computer?			
B.12	Can the computer and operator be used for logistics recordkeeping and reporting?			
B.13	Is the computer used to produce the invoice, monthly report, etc.?			
B.14	What software is used for logistics data?			If NO, skip to B.16
B.15	Who developed the software?			
B.16	What forms are used for logistics data?			
B.17	What is the electricity situation?			
B.18	Is a generator available for the computer?			If NO, skip to B.20
B.19	If YES, what are the specifications for the generator?			
B.20	Do you think a computer will be useful to maintain the logistics data?			
B.21	Will a staff (storekeeper or other) be available to enter logistics data?			

C. Present Inventory		Yes	No	Comments
C.1	What/who sends family planning commodities to the district office?			If NO, skip to C.3
C.2	How many times a year are family planning commodities received?			
C.3	What is the total number of SDPs that receive supplies from this district store?			
C.4	How many SDPs receive family planning commodities?			
C.5	How many individual field workers receive supplies from this district store?			
C.6	Are commodities delivered to the door step?			If YES, skip to C.8
C.7	If NO, how are they transported?			
C.8	How many items (drugs, medicines and supplies) does the district store handle? (list the items)			
C.9	Are any family planning commodities in the store?			If NO, skip to C.11
C.10	List the present items/usable inventory of family planning items in the storeroom; include the expiration date.	Contraceptives		Expiry date

C.11	What is the total quantity of family planning items received since January 2010, by source. (list the items, with quantity received)			
C.12	Is there a mechanism to record monthly/quarterly consumption of family planning items for the district?			
C.13	Is/are there any unusable family planning item(s) in the storeroom? (observe and verify records)			
D. Human Resource		YES	NO	Comment
D.1	What is the total number of staff in your office?			
D.2	How many positions are vacant in your logistics/storeroom?			
D.3	Does the facility have a designated storekeeper/store-in-charge?			If YES, skip to D.5
D.4	If there is NO designated storekeeper/store-in-charge, how is the store managed?			
D.5	Is there someone who can be designated to prepare the report?			
D.6	Can the storekeeper be trained to prepare the report using a computer?			
E. Inventory Control				
E.1	Are there any register/cards in the store to maintain the transaction records of commodities?			If NO, skip to E.7
E.2	If YES, list the names of register/cards. (collect sample copy)	1..... 2..... 3.....		
E.3	Are the records in register/cards up-to-date? (check register/cards)			
E.4	How often records are updated? (check)			
E.5	Who updates the records?			
E.6	Who verifies the records from time to time? (check register/cards)			
E.7	How often are the family planning items supplied? (check records)			
E.8	Is there a rule/mechanism to decide distribution/disbursements of supplies for the family planning commodities?			

E.9	Are there printed invoice/issue voucher to supply family planning items? (If yes, collect a sample copy.)			
F. Transportation				
F.1	Is there a yearly budget for transporting family planning items?			If NO, skip to F.3
F.2	If YES, how much and how often are funds released for transportation? (check records)			
F.3	Does the district store use a departmental vehicle to supply items to lower facilities?			if NO, skip to F.5
F.4	If YES, how many such vehicles are available?			Skip to F.6
F.5	If NO, how do the lower levels transport supplies from the district store?			Skip to G.1
F.6	What are the types and size of the vehicles?			
G. Reporting				
G.1	Is there a regular logistics management reporting system?			If NO, please go to G.7
G.2	If YES, is there a regular reporting system? Is there a printed reporting form? (If yes, collect reporting forms used for various levels and obtain copies of printed forms.)			
G.3	How often is the report submitted by your office to the provincial/regional level? (check report)			
G.4	Who prepares and who approves this report? (See the report, collect a photocopy.)	Prepared by:.....		
		Approved by:.....		
G.5	Does the report have a feedback system?			
G.6	If YES, who provides feedback? (Collect a copy of feedback.)			
G.7	If there is NO regular reporting system, how is information passed to a higher authority?			
H. Training				
H.1	Is the EDO/storekeeper trained to do logistics management?			If NO, skip to H.8
H.2	When was the training ?			
H.3	Who provided the training?			
H.4	What topics were taught in that training?			
H.5	Do you think you/they need refresher training?			
H.6	What topics, do you think, should be discussed in that training?			
H.7	How long (days) should the training last?			
H.8	Do you think you/they need training on logistics management?			
H.9	What topics should be taught in that training?			
H.10	Where should the training be held?	On-site	Off-site	

H.11	How long should the course last?	Short duration (3–6 days)	Medium duration (7–15 days)	Long duration (certification courses—1 month)
------	----------------------------------	------------------------------	--------------------------------	---

The information recorded in the instrument is correct.

Interviewer: _____

Designation: _____

B: District Population Welfare Office

District

Logistics System Assessment Instrument

(DPWO)

Name of District:.....Date of Visit:.....

Office:

Name of DPWO:

Phone & Mobile Number:

Email Address:

Name of Storekeeper/Store-in-Charge:

Demographic Information: (This information will be obtained from the District Population and Development Profiles developed by National Institute of Population Studies [NIPS])

Population: _____ (source)

Other details:???

Total # of service delivery points (SDPs)/facilities (by location/type). Ask for a list of SDPs with possible addresses.

Nongovernmental organizations (NGOs) (names and #s) receiving supplies from this facility. Ask for list of NGOs.

Sl. #	Area	YES	NO	Comments	
A: Physical facility					
A.1	Is the DPWO office located in the government's own building?			If YES, skip to A.3	
A.2	Is the DPWO office located in the rented building?				
A.3	Does the building have a dedicated storeroom?				
A.4	What is the size (length & breath) of the storeroom?	Length: ft, Width: ft, Height: ft.			
A.5	Is there a separate storeroom or a separate place within the store for family planning commodities/Medicines?				
A.6	Is the storeroom has pucca structure (built of brick, sand & cement, mention specifically)?				
A.7	Are the walls & roof strong & dry? (observe)				
A.8	Are the floor & roof dry? (observe)				
A.9	Are the doors & windows strong enough?				
A.10	Are there Ceiling fans in the storeroom? (Observe).			If NO, skip to A.12	
A.11	If YES, how many & are they in running condition?				
A.12	Are there Exhaust fans in the storeroom? (Observe).			If NO, skip to A.14	
A.13	If YES, how many & are they in running condition?				
A.14	Is there provision of periodic pest control in the Storeroom?			If NO, skip to A.16	
A.15	If YES, when was the last pest control done?				
A.16	Is there adequate storage equipment (rack, shelves, dunnage, Almirah) in the store? (Observe)			If NO, skip to A.20	
A.17	If YES how many?				Quantity
				Rack	
				Shelve	
				Almirah	
				Dunnage	
				Trolley	
others					
A.18	Is the equipment in good condition?				
A.19	What is the size of equipment?		Length	Breadth	Height
		Rack			

		Shelve			
		Almirah			
A.20	Is there Fire Extinguisher in the store in working condition?			If NO, skip to A.22	
A.21	If YES, how many?	F. Extinguisher:	Bucket:		
A.22	Is there a cold room or Freezer/Refrigerators in working condition for storing Lab. Chemical, reagents?			If NO, skip to B.1	
A.23	If YES what is the size of the cold room or number of Freezers/Refrigerators.	Cold Room: Length:		Breath:	Height:
		No. of Freezer:		No. of Refrigerators:	

B. Computerization:						
B.1	Is there a computer with printer, UPS, etc. in working condition?			If NO, skip to B.11		
				Items	Qty	Condition
				Computer(s)		
				UPS		
				Printer(s)		
				Scanner(s)		
B.2	Specifications of Computer	Item	Comp.1	Comp.2	Comp.3	
		Processor Technology				
		CPU Speed				
		RAM				
		Hard Drive				
		CD/DVD Rom				
		Network Card				
B.3	Is computer network installed?			If NO, skip to B.5		
B.4	If YES then it is wired or wireless?					
B.5	Is internet connectivity available in your office			If YES, skip to B.7		
B.6	Is internet connectivity available in your region			If NO, skip to B.8		
B.7	If YES then type of internet (either in office or Service Provider internet packages)			Internet	Speed	
				Dial-up		
				ISDN		
				DSL		

				Wireless DSL	
B.8	Who operates computer for entering logistics data?				
B.9	What purposes the computer is used for?				
B.10	Does the operator have minimum basic capacity to use MS office and internet explorer?				
B.11	Is day to day logistics transaction records maintained in the computer?				
B.12	If yes, who prepares the report on computer?				
B.13	Is Invoice, Monthly report, etc. are produced in the computer?				
B.14	What software is used for logistics data?			If NO, skip to B.16	
B.15	Who developed the software?				
B.16	Which forms are used for logistics data?				
B.17	What is the electricity condition?				
B.18	Is Generator available for computer?			If NO, skip to B.20	
B.19	If YES, what is specifications of generator				
B.20	Do you think a computer will be useful to maintain the logistics data?				
B.21	Will a staff (storekeeper or other) be available for entering logistics data?				

C. Present Inventory		Yes	No	Comments	
C.1	From where the District office receives family planning commodities?			If NO, skip to C.3	
C.2	How many times a year family planning commodities are received?				
C.3	How many total numbers of Service Delivery Points (SDPs) receive supplies from this district store?				
C.4	How many SDPs receive family planning commodities?				
C.5	How many individual field workers receive supplies from this district store?				
C.6	Are commodities supplied at the door step?			If YES, skip to C.8	
C.7	If NO, what is the means of transportation?				
C.8	How many items are (drugs, medicines and supplies) handled by the District store? (collect a list of items)				
C.9	List the present item-wise usable inventory of the family planning items in the storeroom with Exp. date	Contraceptives		Expiry date	

C.10	Total quantity of family planning items received since January 2010 by source. (collect a list of items with quantity received)			
C.11	Is there mechanism to record monthly/quarterly consumption of family planning items for district?			
C.12	Is/Are there any unusable family planning item(s) in the storeroom? (Observe & verify records)			
D. Human resource		Yes	No	Comment
D.1	What is the total number of staff in your office?			
D.2	How many positions are vacant in your logistics/storeroom?			
D.3	Is there a designated Storekeeper/store-in-charge for the facility?			If YES, skip to D.5
D.4	If there is NO designated Storekeeper/Store-in-charge, how is the store managed?			
D.5	Is there someone who can be designated to prepare the report?			
D.6	Can the SK be trained to prepare the report using computer			
E. Inventory Control				
E.1	Are there any Register/Cards in the store to maintain the transaction records of commodities?			If NO, skip to E.7
E.2	If YES, list the names of Register/Cards (Collect sample copy)	1..... 2..... 3.....		
E.3	Are the records in Register/Cards up to date? (Check Register/Cards)			
E.4	How often records are up dated? (Check)			
E.5	Who updates the records?			
E.6	Who verifies the records from time to time? (Check Register/Cards)			
E.7	Is there a rule/mechanism to decide distribution/disbursements of supplies of family planning commodities?			
E.8	How often the family planning items are supplied? (Check records)			
E.9	Are there printed Invoice/Issue Voucher to supply family planning items? (If yes, collect a sample copy)			

F. Transportation			
F.1	Is there a yearly budget for transportation of family planning Items?		If NO, skip to F.3
F.2	If YES, how much & how frequently fund is released for transportation? (check records)		
F.3	Does the District Store use a Departmental vehicle to supply items to lower facilities?		If NO, skip to F.5
F.4	If YES, how many such vehicles are available/		Skip to F.6
F.5	If NO, how the lower levels take supplies from the District Store?		Skip to G.1
F.6	What are the types and size of the vehicles?		
G. Reporting			
G.1	Is there a regular logistics management reporting system?		If NO, Skip to G.7
G.2	If YES, does there exist any regular reporting system? And is there printed reporting form? (if yes, enlist reporting forms used for various levels and obtain copies of printed forms)		
G.3	How often the report is submitted by your office to the Provincial/Regional level? (Check report)		
G.4	Who prepares and who approves this report? (See the report, collect a photocopy)	Prepared by:..... Approved by:.....	
G.5	Is there a feedback system on the report?		
G.6	If YES, who provides feedback? (Collect a copy of feedback)		
G.7	If there is NO regular reporting system, how information is passed to higher authority?		
H. Training			
H.1	Is the DPWO/Storekeeper trained on logistics management?		If NO, skip to H.8
H.2	When the training was received?		
H.3	Who provided the training?		
H.4	What topics were taught in that training?		
H.5	Do you think you need a refresher?		
H.6	What topics, according to you, should be discussed in that training?		
H.7	What should be the duration (days) of the training?		
H.8	Do you think you need training on logistics management?		
H.9	What topics should be taught in that training?		
H.10	Where the training should be held?	On-Site	Off-Site

H.11	What Should be the duration of the course?	Short Duration (3-6 days)	Medium Duration (7-15 days)	Long Duration (Certification Courses – 1 month)
------	--	---------------------------	-----------------------------	---

The information recorded in the Instrument is correct.

Interviewer: _____

Designation: _____

C: Lady Health Workers Program

District

Logistics System Assessment Instrument

(Lady Health Worker)

Name of District:.....Date of visit:.....

Office:

Name of District Coordinator:

Phone & mobile Number:

Email Address:

Name of Storekeeper/Store-in-charge:

Demographic Info: (This information will be obtained from the District Population and Development Profiles developed by National Institute of Population Studies - NIPS)

Population: _____ (source)

Other details:???

Total # of Service Delivery Points/facilities (by location/type). Ask for list of SDPs with possible addresses.

NGOs (names and #s) receiving supplies from this facility. Ask for list of NGOs

Sl. #	Area	YES	NO	Comments	
A: Physical facility					
A.1	Is the District Coordinator office located in the government's own building ?			If YES skip to A.3	
A.2	Is the District Coordinator office located in the rented building?				
A.3	Does the building have a dedicated storeroom?				
A.4	What is the size (length & breath) of the storeroom?	Length: ft, Width: ft, Height: ft.			
A.5	Is there a separate storeroom or a separate place within the store for family planning commodities/Medicines?				
A.6	Is the storeroom has pucca structure (built of brick, sand & cement, mention specifically)?				
A.7	Are the walls & roof strong? (observe)				
A.8	IS the floor & roof dry? (observe)				
A.9	Are the doors & windows strong enough?				
A.10	Are there Ceiling fans in the storeroom? (Observe).			If NO skip to A.12	
A.11	If YES, how many & are they in running condition?				
A.12	Are there Exhaust fans in the storeroom? (Observe).			If NO skip to A.14	
A.13	If YES, how many & are they in running condition?				
A.14	Is there provision of periodic pest control in the Storeroom?			If NO, skip to A.16	
A.15	If YES, when was the last pest control done?				
A.16	Is there adequate storage equipment (rack, shelves, dunnage, Almirah) in the store? (Observe)			If NO skip to A.20	
A.17	If YES how many?				Quantity
				Rack	
				Shelve	
				Almirah	
				Dunnage	
				Trolley	
others					
A.18	Is the equipment in good condition?				
A.19	What is the size of equipment?		Length	Breadth	Height
		Rack			

		Shelve			
		Almirah			
A.20	Is there Fire Extinguisher in the store in working condition?			If NO skip to B1	
A.21	If YES, how many?	F. Extinguisher:	Bucket:		

B. Computerization:							
B.1	Is there a computer with printer, UPS, etc. in working condition?			If NO, skip to B.11			
				Items	Qty	Condition	
				Computer(s)			
				UPS			
				Printer(s)			
				Scanner(s)			
B.2	Specifications of Computer			Item	Comp.1	Comp.2	Comp.3
				Processor Technology			
				CPU Speed			
				RAM			
				Hard Drive			
				CD/DVD Rom			
				Network Card			
B.3	Is computer network installed?			If NO, skip to B.5			
B.4	If YES then it is wired or wireless?						
B.5	Is internet connectivity available in your office			If YES, skip to B.7			
B.6	Is internet connectivity available in your region			If NO, skip to B.8			
B.7	If YES then type of internet (either in office or Service Provider internet packages)			Internet	Speed		
				Dial-up			
				ISDN			
				DSL			
				Wireless DSL			
B.8	Who operates computer for entering logistics data?						
B.9	What purposes the computer is used for?						
B.10	Does the operator have minimum basic capacity to use MS office and internet explorer?						
B.11	Is day to day logistics transaction records maintained in the computer?						

B.12	Can the computer and operator be used for logistics recordkeeping and reporting?			
B.13	Is Invoice, Monthly report, etc. are produced in the computer?			
B.14	What software is used for logistics data?			If NO, skip to B.16
B.15	Who developed the software?			
B.16	Which forms are used for logistics data?			
B.17	What is the electricity condition?			
B.18	Is Generator available for computer?			If NO, skip to B.21
B.19	If YES, what is specifications of generator			
B.20	Is budget allocated for the diesel?			
B.21	Do you think a computer will be useful to maintain the logistics data?			
B.22	Will a staff (storekeeper or other) be available for entering logistics data?			
C. Present Inventory		Yes	No	Comments
C.1	From where the District office receives family planning commodities?			If NO, skip to C.3
C.2	How many times a year family planning commodities are received?			
C.3	How many total numbers of Service Delivery Points (SDPs) receive supplies from this district store?			
C.4	How many SDPs receive family planning commodities?			
C.5	How many individual field workers receive supplies from this district store?			
C.6	Are commodities supplied at the door step?			If YES skip to C.8
C.7	If NO, what is the means of transportation?			
C.8	How many items are (drugs, medicines and supplies) handled by the District store? (collect a list of items)			
C.9	Are there any family planning commodities items in the store?			If NO skip to C.11
C.10	List the present item-wise usable inventory of the family planning items in the storeroom with Exp. Date.	Contraceptives		Expiry date
C.11	Total quantity of family planning items received since			

	January 2010 by source. (collect a list of items with quantity received)			
C.12	Is there mechanism to record monthly/quarterly consumption of family planning items for district?			
C.13	Is/Are there any unusable family planning item(s) in the storeroom? (Observe & verify records)			
D. Human resource		Yes	No	Comment
D.1	What is the total staff of your Department?			
D.2	How many positions are vacant in your logistics/storeroom?			
D.3	Is there a designated Storekeeper/store-in-charge for the facility?			If YES, skip to D.5
D.4	If there is NO designated Storekeeper/Store-in-charge, how is the store managed?			
D.5	Is there someone who can be designated to prepare the report?			
D.6	Can the SK be trained to prepare the report using computer			
E. Inventory Control				
E.1	Are there any Register/Cards in the store to maintain the transaction records of commodities?			If NO, skip to E.7
E.2	If YES, list the names of Register/Cards (Collect sample copy)	1..... 2..... 3.....		
E.3	Are the records in Register/Cards up to date? (Check Register/Cards)			
E.4	How often records are up dated? (Check)			
E.5	Who updates the records?			
E.6	Who verifies the records from time to time? (Check Register/Cards)			
E.7	Is there a rule/mechanism to decide distribution/disbursements of supplies of family planning commodities?			
E.8	How often the family planning items are supplied? (Check records)			
E.9	Are there printed Invoice/Issue Voucher to supply family planning items? (If yes, collect a sample copy)			
F. Transportation				
F.1	Is there a yearly budget for transportation of family planning Items?			If NO skip to F.3

F.2	If YES, how much & how frequently fund is released for transportation? (check records)			
F.3	Does the District Store use a Departmental vehicle to supply items to lower facilities?			If NO skip to F.5
F.4	If YES, how many such vehicles are available/			Skip to F.6
F.5	If NO, how the lower levels take supplies from the District Store?			Skip to G.1
F.6	What are the types and size of the vehicles?			
G. Reporting				
G.1	Is there a regular logistics management reporting system?			If NO, Skip to G.7
G.2	If YES, does there exist any regular reporting system? And is there printed reporting form? (if yes, enlist reporting forms used for various levels and obtain copies of printed forms)			
G.3	How often the report is submitted by your office to the Provincial/Regional level? (Check report)			
G.4	Who prepares and who approves this report? (See the report, collect a photocopy)	Prepared by:..... Approved by:.....		
G.5	Is there a feedback system on the report?			
G.6	If YES, who provides feedback? (Collect a copy of feedback)			
G.7	If there is NO regular reporting system, how information is passed to higher authority?			
H. Training				
H.1	Is the District Coordinator /Storekeeper trained on logistics management?			If NO skip to H.8
H.2	When the training was received?			
H.3	Who provided the training?			
H.4	What topics were taught in that training?			
H.5	Do you think you need a refresher?			
H.6	What topics, according to you, should be discussed in that training?			
H.7	What should be the duration (days) of the training?			
H.8	Do you think you need training on logistics management?			
H.9	What topics should be taught in that training?			
H.10	Where the training should be held?	On-Site	Off-Site	
H.11	What Should be the duration of the course??	Short Duration (3-6	Medium Duration	Long Duration (Certification Courses – 1 month)

		days)	(7- 15 days)	
--	--	-------	------------------------	--

The information recorded in the Instrument is correct.

Interviewer: _____

Designation: _____

Annex II: List of In-Depth Interviews Conducted

City	Name	Designation
Islamabad	Abdul Waheed	Director Planning Division – Govt. of Pakistan
	Ali Gohar	District Population Welfare Officer - Islamabad
	Shahzad Ahmad	Chief Planning & Development Division – Govt. of Pakistan
	Dr. Hamid Afridi	Deputy National Coordinator, family planning IU
Punjab	Dr. Anwar Janjua	Director Health Services – MIS, Department of Health, Govt. Of Punjab
	Dr. Akhtar Rasheed	Provincial Coordinator, National Program of family planning & PHC, Govt. Of Punjab
	Abdul Rauf	Director General – Population Welfare Department, Govt. Of Punjab
KPK	Noor Nawaz Khan	Director General – Population Welfare Department, Govt. Of KPK
	Dr. Ihsan Ullah Turabi	Provincial Coordinator - National Program of family planning & PHC, Govt. Of KPK
Sindh	Ashfaq Ali Shah	Additional Secretary – Population Welfare Department, Govt. Of Sindh
	Muzaffar Ali Bhutto	District Population Welfare Officer - Karachi East, Govt. Of Sindh
	Feroz Din Memon	Provincial Coordinator - National Program of family planning & PHC, Govt. Of Sindh
	Dr. Zahid	Procurement Officer – Karachi EDO Office, Govt. Of Sindh

Annex III: Project Field Plan

USAID | DELIVER PROJECT—District and Provincial Supply Chain Management Situation Assessment in Pakistan - Field Plan

S.NO	Assessment Districts	Date of Assessment
1	Islamabad	25 April 2011
2	Rawalpindi	26 April 2011
3	Chakwal	05 May 2011
4	Faisalabad	06 May 2011
5	Nowshera	07 May 2011
6	Swabi	09 May 2011
7	Peshawar	10 May 2011
8	Lahore	11 May 2011
9	Muzaffarabad	12 May 2011
10	Rawalakot	13 May 2011
11	Multan	16 May 2011
12	Rahim Yar Khan	17 May 2011
13	Abbottabad	17 May 2011
14	Haripur	27 May 2011
15	Mardan	28 May 2011
16	Hyderabad	30 May 2011
17	Khushab	30 May 2001
18	Mirpur Khas	31 May 2011
19	Lodhran	31 May 2011
20	Dadu	01 June 2011
21	Mithi	02 June 2011
22	Jaccobabad	02 June 2011
23	Badin	03 June 2011
24	Karachi	04-06 June 2011
25	Gilgit	Taken-out from Sample

Annex IV: Government of Pakistan Devolution Note, June 29, 2011

FUNCTIONS OF MINISTRIES BEING DEVOLVED TO THE PROVINCES AS PER SCHEDULE-II TO THE RULES OF BUSINESS, 1973

MINISTRY OF HEALTH

SUBJECTS/ENTRIES		PROPOSALS OF THE IMPLEMENTATION COMMISSION
Ministry of Health		
1.	National Planning and Coordination in the field of health.	Assigned to the Planning and Development Division
2.	Dealings and agreements with other countries and international organisations in the fields of health, drug and medical facilities abroad	Assigned to the Economic Affairs Division
3.	International aspects of medical facilities and public health: International Health Regulations; Port health; health and medical facilities abroad	Assigned to the Economic Affairs Division
4.	Scholarships/fellowships, training courses in health from International Agencies such as W.H.O. and UNICEF	Assigned to the Economic Affairs Division
5.	Medical, nursing, dental, pharmaceutical, para-medical and allied subjects:- a) maintenance of educational standards; b) education abroad and c) educational facilities for backward areas and for foreign nationals, except the nomination of candidates from Federally Administration Tribal Areas for admission to Medical College	a) Developed, except to the extent of federal areas b) Assigned to the IPC Division c) Assigned to the IPC Division
6.	Standardisation and manufacture of biotechnological pharmaceutical products.	Assigned to the proposed Drug Regulatory Authority.
7.	Vital health statistics	Assigned to the Federal Bureau of Statistics
8.	Medical and health services for Federal Government employees.	Assigned to the CADD
9.	National Associations in medical and allied field such as the	Assigned to the IPC Division

	Red Crescent Society and T.B. Association.	
10.	Coordination medical arrangements and health delivery systems for the Afghan refugees.	Assigned to the States and Frontier Regions Division
11.	(i) Legislation pertaining to drugs and medicines, including narcotics and psychotropic, but excluding functions assigned to the Pakistan Narcotics Control Board. (ii) Administration of Drugs Act, 1976, and (iii) Poisons and dangerous drugs.	Assigned to the proposed Drug Regulatory Agency Assigned to the proposed Drug Regulatory Agency Assigned to the proposed Drug Regulatory Agency
12.	Prevention of the extension from one Province to another of infectious and contagious diseases.	Devolved
13.	Lunacy and Mental deficiency.	Devolved
14.	Administrative control of the Pakistan Medical Research Council.	Assigned to the IPC Division
15.	Administrative control of the National Institute of Handicapped, Islamabad.	Assigned to the CADD
Attached Departments/Organisations of Ministry of Health		
1.	Pakistan Medical and Dental Council	Assigned to the IPC Division
2.	Pakistan Nursing Council	Assigned to the IPC Division
3.	College of Physicians and Surgeons	Assigned to the IPC Division
4.	National Council for Tibb	Assigned to the IPC Division
5.	National Council for Homeopathy	Assigned to the IPC Division
6.	Pharmacy Council of Pakistan	Assigned to the IPC Division
7.	National Institute of Health	Assigned to the Cabinet Division
8.	Proposed Drug Regulatory Agency	Assigned to the Cabinet Division
9.	PIMS	Assigned to the CADD
10.	Federal Government Services Hospital, Islamabad	Assigned to the CADD
11.	Directorate of Malaria Control, Islamabad	To be wound up
12.	National Health Information Resource Centre, Islamabad	To be merged with the National Institute of Health
13.	Health Services Academy, Islamabad	Assigned to the IPC Division
14.	Federal Dental and Medical College, Islamabad	Assigned to the CADD
15.	Jinnah Postgraduate Medical Centre, Karachi	Devolved to the Government of Sindh
16.	National Institute of Child Health, Karachi	Devolved to the Government of Sindh
17.	Directorate of Central Health Establishment, Karachi	Assigned to the IPC Division
18.	National Institute of Cardiovascular Diseases, Karachi	Devolved to the Government of Sindh
19.	Sheikh Khalifa Bin Zaid Hospital, Quetta	Devolved to the Government of Balochistan
20.	Tobacco Control Cell	To be merged with the Health Services Academy
21.	Vertical Programmes	Devolved to the provinces
22.	National Health Emergency Preparedness and Response Network	Assigned to the Cabinet Division

Annex V: Government of Pakistan, Ministry of Population Welfare Devolution Note, December 3, 2020

TO BE PUBLISHED IN THE NEXT ISSUE
OF GAZETTE OF PAKISTAN PART-1

No.14(2)/2009-Services
Government of Pakistan
Ministry of Population Welfare
"F" Block, Pak Secretariat
Islamabad

Islamabad, the 3rd December 2010

NOTIFICATION

On reorganization of Federal Secretariat in pursuance of Constitutional (Eighteenth Amendment) Act, 2010 (Act No.X of 2010) the following Offices under the Ministry of Population Welfare are transferred to Planning & Development Division, Government of Pakistan, Islamabad:

1. National Research Institute of Fertility Care (NRIFC), Karachi.
2. Central Warehouse & Supplies (CW&S), Karachi.
3. National Institute of Population Studies (NIPS), Islamabad.
4. National Trust for Population Welfare (NATPOW), Islamabad.


(Lt. Cdr. (R) Abdul Mateen)
Section Officer (Services)
Ph : (051) 924-8029

The Manager,
Printing Corporation Pakistan Press
Islamabad

Copy to:

1. Chairman, Implementation Commission, 18th Amendment, Islamabad.
2. Secretary, Cabinet Division, Islamabad.
3. Secretary, Establishment Division, Islamabad.
4. Secretary, Planning & Development Division, Islamabad.
5. National Research Institute of Fertility Care (NRIFC), Karachi.
6. Central Warehouse & Supplies (CW&S), Karachi.
7. Executive Director, National Institute of Population Studies (NIPS), Islamabad.
8. Chairman, National Trust for Population Welfare (NATPOW), Islamabad.
9. DS (IC-1), IPC Division/Implementation Commission Secretariat, Islamabad.


Section Officer (Services)

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

USAID | DELIVER PROJECT

John Snow, Inc.

1616 Fort Myer Drive, 16th Floor

Arlington, VA 22209 USA

Phone: 703-528-7474

Fax: 703-528-7480

Email: askdeliver@jsi.com

Internet: deliver.jsi.com