



STUDENT GUIDE

Three Credit Course on Supply Chain Management of Health Commodities



Prime
Institute of Public Health
bridging academia and practice in public health

HEALTH DEPARTMENT
Government of
Khyber Pakhtunkhwa
حکومت خیبر پختونخوا

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COURSE ACRONYMS LIST

3TC	Lamivudine
AIDS	Acquired Immunodeficiency Syndrome
AMC	Average Monthly Consumption (what we need to determine how much we should order)
ART	Antiretro Viral Therapy
ARV	Anti-Retroviral (Drugs)
AZT	Azido-Thymidine
BDS	Bid Data Sheet
BEC	Bid Evaluation Committee
BHU	Basic Health Unit
BOC	Bid Opening Committee
CPR	Contraceptive Prevalence Rate
CS	Commodity Security
CWH	Central Warehouse
CYP	Couple Year Protection (used in quantifying contraceptives)
D4T	Stavudine
DAR	Daily Activity Register for recording items given to patients (where dispensed-to-user data comes from)
DOH	Department of Health
DPIU	District Program Implementation Unit
DPWO	District Population Welfare Departments
EDO	Executive District Officer
EML	Essential Medicine List
EOP	Emergency Order Point
EPI	Expanded Program of Immunization
FEFO	First Expiry First Out – a method for stocking items
FLCF	First Level Care Facility
FP	Family Planning

HMIS	Health Management Information System
ICB	International Competitive Bidding
ICC	Inventory Control Card
ITB	Instructions To Bidders
IUD	Intrauterine Contraceptive Device
IV	Intravenous
LHW	Lady Health Worker
LIAT	Logistics Indicator Assessment Tool (quantitative)
LMIS	Logistics Management Information System
LSAT	Logistics System Assessment Tool (qualitative)
Max/Min	Maximum Minimum months of stock
M&E	Monitoring and Evaluation
MOS	Months of Stock
PEPFAR	(U.S.) President's Emergency Plan for AIDS Relief
PMTCT	Prevention of Mother to Child Transmission (of HIV)
PPIU	Provincial Program Implementation Unit
PPR 2004	Public Procurement Rules 2004
PPRA	Public Procurement Regulatory Authority
PST	Pre-service training (this course can be considered PST)
PWD	Population Welfare Department
RFQ	Request for Quote
RH	Reproductive Health
RHC	Rural Health Center
SBD	Standard Bidding Documents
SDP	Service Delivery Point. Used to represent the following unless specified. Family Welfare Centers, Mobile Service Units, Reproductive Health Services, LHWs, Rural Health Centers, Tehsil Headquarter Hospitals, Basic Health Units, District HQ Hospital.
SOH	Stock on Hand
STGs	Standard Treatment Guidelines (if followed by Doctors, Pharmacists and Nurses this helps us in quantifying our projected stock needs)

TEC	Technical Evaluation Committee
THQ	Tehsil Headquarter Hospital
TMS	Transport Management System
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WRA	Women of Reproductive Age

SESSION 1: INTRODUCTION TO THE COURSE

OVERVIEW COURSE IN SUPPLY CHAIN MANAGEMENT GOALS AND OBJECTIVES

GOALS: To increase the participants' understanding of the fundamentals of logistics management and the relationship between supply chain logistics and commodity security

To strengthen the participants' ability to implement improvements to basic elements of their logistics systems

OBJECTIVES: By the end of the course, participants will be able to:

1. Describe the purpose of a logistics system, list the major activities of logistics management, and describe the relationships among these activities
2. Describe the concept of commodity security and the role of logistics in assuring commodity security
3. Define key logistics terms and concepts
4. Identify key public health logistics actors in Pakistan
5. List the main components of Pakistan's public health logistics system
6. Identify the basic elements of a logistics management information system (LMIS), analyze a LMIS, and make recommendations for improving a LMIS.
7. List the basic guidelines for proper storage to ensure health commodity quality
8. Assess health commodity stock status at different levels of a public health system
9. Define maximum-minimum ordering systems and determine appropriate order quantities using max/min inventory control procedures.
10. Define quantification and describe the steps in the quantification process.
11. Describe the purpose of Monitoring and Evaluation
12. Apply basic logistics principles to the management of a wide variety of health commodities, including contraceptives, HIV/AIDS products, Essential Drugs, and TB and malaria drugs.
13. Evaluate a health facility's logistics practices
14. Identify the basics components of procurement in relation to: public sector competitive bidding, contract performance monitoring and product delivery, and public sector procurement in Pakistan
15. Explain the concept of cold chain management and its significance

SESSION 2: SETTING THE CONTEXT OF THE COURSE: COMMODITY SECURITY

COMMODITY SECURITY FRAMEWORK



SESSION 3 INTRODUCTION TO HEALTH LOGISTICS SYSTEMS

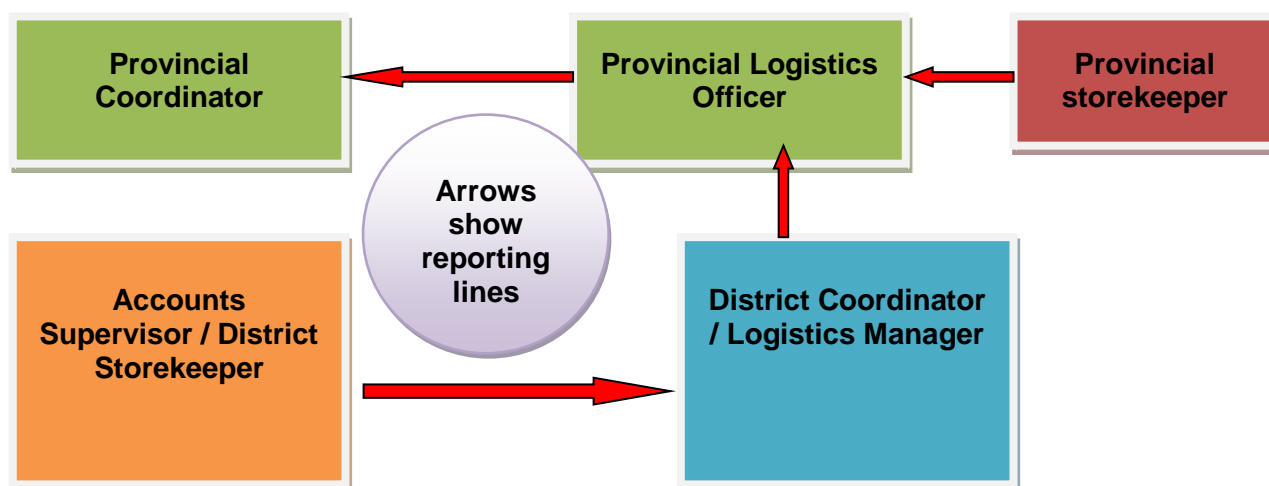
Logistics Activities

Instructions: For each activity that you are given identify one or more persons who are responsible for that activity in a logistics system

- 1. Receive products at port of entry**
- 2. Transport products by bicycle or on foot**
- 3. Ensure products are clearly labeled**
- 4. Perform customs clearance procedures**
- 5. Determine size of packages**
- 6. Dispense products to the client**
- 7. Apply First-Expiry, First-Out**
- 8. Organize the warehouse or storage facility**
- 9. Pack/unpack cartons of products**
- 10. Count the number of products available for use**
- 11. Transport products by airplane or by ship**
- 12. Perform quality testing**
- 13. Enter information into records**
- 14. Repackage products into smaller size containers**

- 15. Complete a monthly/ quarterly logistics report**
- 16. Follow proper storage guidelines**
- 17. Ensure availability of adequate storage space**
- 18. Transport products by truck**
- 19. Update logistics records**
- 20. Verify quantities received or issued**
- 21. Complete an issue or receipt voucher**
- 22. Procure raw materials**
- 23. Produce products from raw materials**
- 24. Conduct laboratory tests**

Job Descriptions – Lady Health Workers Program



Level	Position	Job responsibilities
Provincial / Regional	Provincial Logistics Officer	<p>Warehousing</p> <ul style="list-style-type: none"> Establish, equip and maintain an office in the provincial warehouse premises and must dedicate at least 60% of his duty time to this office. Advise the Provincial Coordinator regarding the timely procurement and inform about the arrival of materials at the Provincial and Regional Project Implementation Unit (PIU). Prepare a plan that shows the actual storage space and the requirement of storage space in the warehouse. Supervise day-to-day activities of the storekeeper and verify/ensure that the warehouse/stores are being managed according to policy guidelines and the checklist. Arrange and provide resources for the maintenance and repair of the warehouse. Assessment and preparation of specifications for the purchase, repairs and maintenance of durable goods. Monitor logistics system and take physical inventory and verification of the PPIU warehouse/stores annually and of the District PIU stores at least twice a year. * (For details, refer to Monitoring protocol and requirements). Prepare periodic summary of obsolete, unusable and expired materials and manage disposal in accordance with Programme policy Manage the security of warehouse/ store. <p>Forecasting / Quantification</p> <ul style="list-style-type: none"> Prepare/calculate the annual requirements for Programme commodities and forward these to the Competent Authority <p>Procurements</p> <ul style="list-style-type: none"> Undertake and manage all local procurements assigned to the Provincial PIU. <p>Distribution and Supplies</p>

		<ul style="list-style-type: none"> • Prepare distribution plans of Programme commodities and submit to competent authority for approval. • Verify Issue and Receipt Vouchers (IRVs). • Manage the timely transportation of Programme commodities to districts.
Provincial / Regional	Provincial Storekeeper	Warehouse <ul style="list-style-type: none"> • Dedicate at least 80% of his duty time to the office established in the warehouse. • Maintain the PPIU warehouse and its commodities according to the Programme guidelines which includes: • Responsibility for cleanliness and orderliness of the warehouse. • Operate ventilation systems. • Maintain record of temperature during working hours. • Disinfect the warehouse periodically. • Maintain the security of the warehouse. Keep the doors and windows of the warehouse locked after duty hours. Lock of the main door must be sealed and emboss the seal. • Maintain the records of all transactions related to inventory management. This includes maintenance of Bin Cards, stock registers and preparation of issue/receipt vouchers. • Collect and receive materials and document these activities. • Provide information and summary reports to management when requested regarding periodic receipts and issues of commodities. • Assist Logistics Officers in developing distribution plans. • Assist Logistics Officer in distribution and transportation of commodities. • Supervise the loading and unloading of Programme commodities. • Prepare lists of near expiry (six months before their expiry) and unusable/expired commodities on periodic basis.
District	District Coordinator / Logistics Manager	Warehousing <ul style="list-style-type: none"> • Supervise day-to-day activities of the Accounts Supervisor and verify that the store is being maintained according to the policy guidelines. • Verify store records, i.e. Bin Cards, Stock Registers and IRVs. • Physically verify District PIU store every six months, preferably in collaboration with Provincial Logistics Officer. • Monitor the District PIU and FLCF stores regularly and assess their stock balances and average monthly consumption. • Prepare periodic summary of obsolete, unusable and expired materials and inform the authority accordingly. Ordering and receipt <ul style="list-style-type: none"> • Prepare/calculate the requirements on quarterly basis for Programme commodities and forward these to the Competent Authority (CWH) through District Population Welfare Officer.

		<ul style="list-style-type: none"> Inspect commodities after being received in the store and acknowledge the receipts. <p>Supplies Distribution</p> <ul style="list-style-type: none"> The Logistics Manager will be responsible for ensuring/arranging/monitoring regular and effective flow of Programme commodities to the First Level Care Facilities (BHU, RHC, THQ). Arrange for the transportation of commodities to FLCFs. <p>Reporting</p> <ul style="list-style-type: none"> Manage the compilation of LMIS and Health Management Information System (HMIS) monthly reports and timely submission to PPIU
District	Accounts Supervisor / District Storekeeper	<p>Warehousing</p> <ul style="list-style-type: none"> Maintain the District store and its commodities according to the Programme guidelines which includes: <ul style="list-style-type: none"> Responsibility for cleanliness and orderliness of the store. Operate ventilation systems. Maintain record of temperature during working hours. Disinfect the store periodically. Maintain the security of the store. Keep the doors and windows of the store locked after duty hours. Lock of the main door must be sealed and emboss the seal. Maintain the records of all transactions related to inventory management. This includes maintenance of Bin Cards, Stock Registers and preparation of Issue/Receipt Vouchers. Prepare lists of near expiry (six months before their expiry) and unusable/expired commodities on periodic basis. <p>Ordering and receipt</p> <ul style="list-style-type: none"> Assist District Coordinator in preparing/calculating the requirements on quarterly basis for Programme commodities. Assist the District Coordinator in recovery of the items from the LHWs no more serving the Programme. Supervise the loading and unloading of Programme commodities. Provide information and summary reports to the District Coordinator when requested regarding periodic receipts and issues of commodities. <p>Reporting</p> <ul style="list-style-type: none"> Assist District Coordinator in compilation of LMIS and HMIS monthly reports and timely submission to PPIU. <p>Supplies and Distribution</p> <ul style="list-style-type: none"> Assist District Coordinator in developing distribution plans. Assist District Coordinator in distribution and transportation of commodities.
Service Delivery Point	Lady Health Worker	<ul style="list-style-type: none"> Dispenses contraceptive to clients Reports consumption to FLCF level

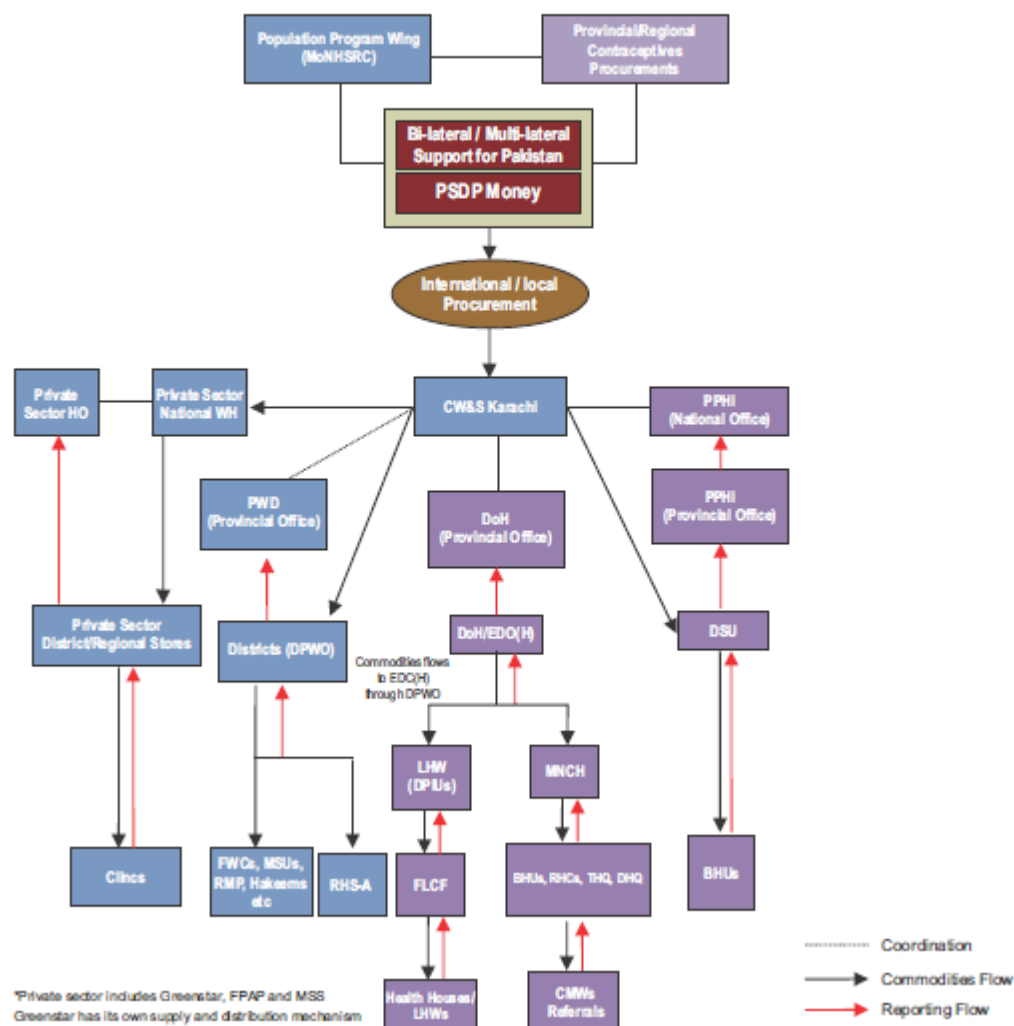
Contraceptive Supply and Reporting Flow

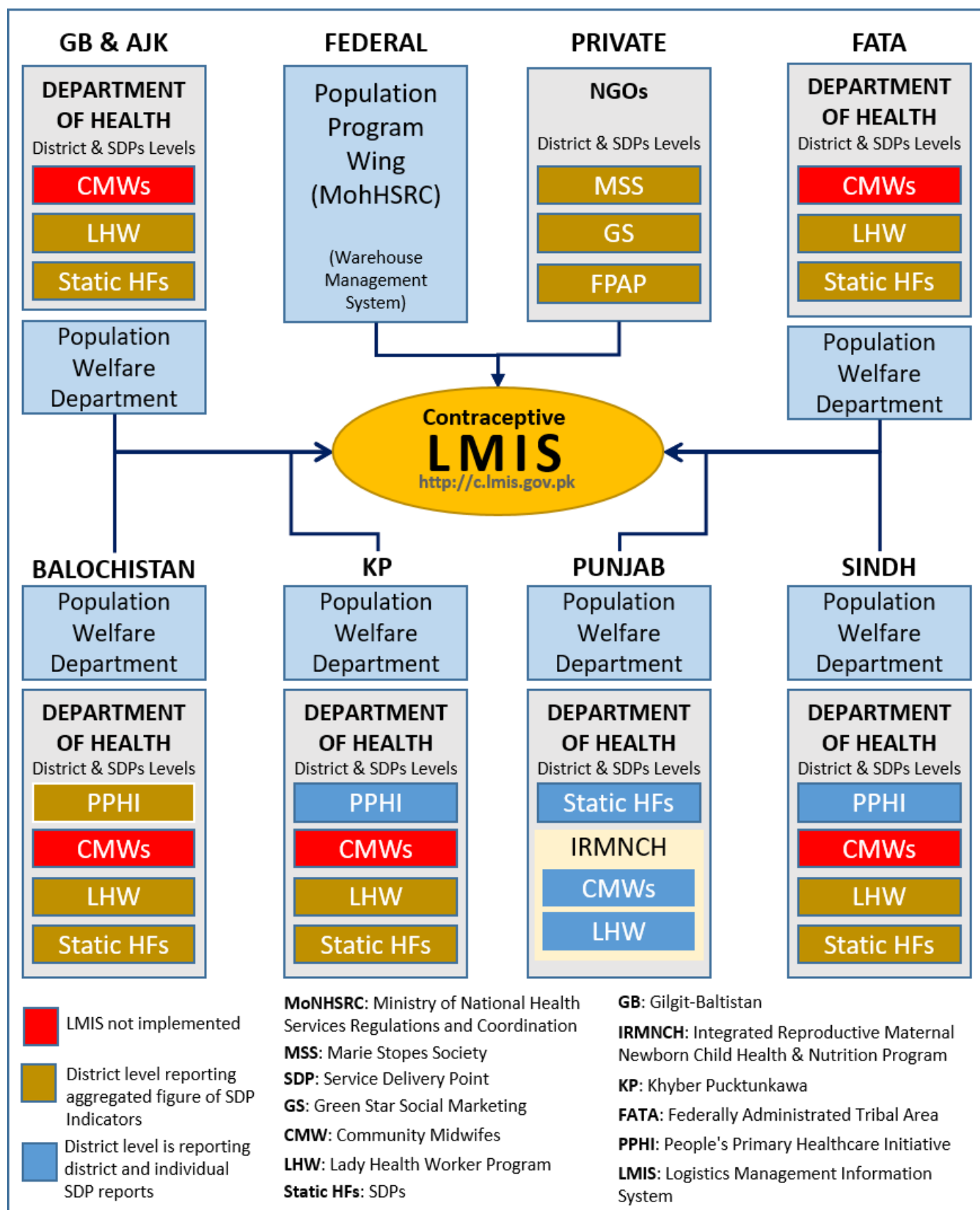
The flowchart below describes supply for all contraceptive commodities for all stakeholders. The flowchart incorporates recent policy changes regulating the movement of commodities from central to district level. Most of the contraceptives are procured internationally apart from small local procurements by Lady Health Program for injectables and oral pills. The funding sources include government's public sector development program (PSDP), USAID and UNFPA. All international procurements are usually shipped through sea and received at Karachi port. Once cleared, the commodities are transported and stored at Central Warehouse & Supplies Karachi.

The Central Warehouse supplies contraceptives based on pull system. The Integrated CLR-6 form is used to send orders from district to Central Warehouse. An integrated CLR-6 is one single order request containing demand of all public sector family planning (FP) services providers (Population Welfare Department, Department of Health). The Executive District Officers first estimates the demand of all its various service delivery points and sends it to District Population Welfare Officer (DPWO). These service delivery points include Lady Health Workers, Maternal Neonatal and Health Services and Basic Health Units (BHUs). In districts where Peoples Primary Healthcare Initiative (PPHI) manages BHUs the demand for BHUs is sent by them to DPWO. Once CWH receives the CLR-6 from each DPWO, it will ship the required quantities to districts. DPWO will thus receive all required contraceptives from districts and will send required quantities (initially indicated in integrated CLR-6) to each of the FP service provider (DOH & PPHI). Once all public sector FP providers have received their required quantities they distribute them onwards to their respective service delivery points.

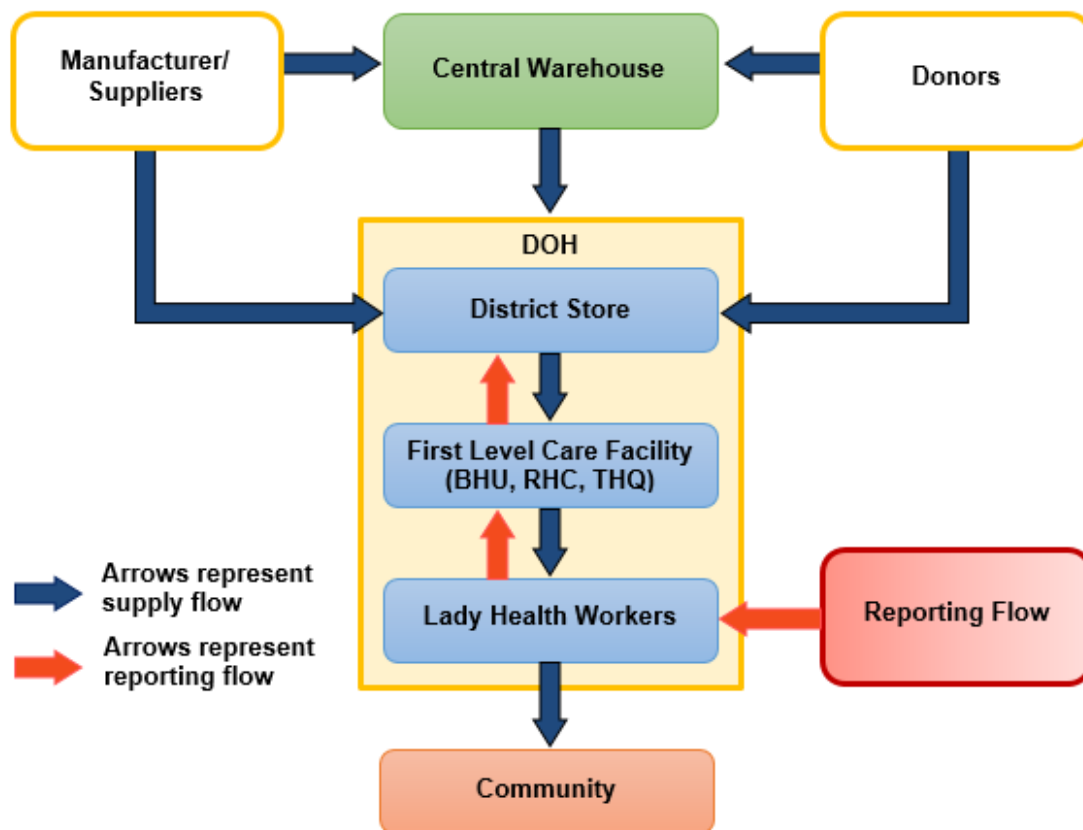
The Contraceptive reporting mechanisms vary by public sector family planning (FP) services providers (Population Welfare Department and the Department of Health). The consumption data is generated at the service delivery points for all public sector FP service providers (e.g. family welfare centers, mobile service units and basic health units). The reports originating from service delivery points are compiled at district level by district managers (District Population Welfare Officer, Executive District Officer – Health) and then submitted onwards to their respective provincial departments (Population Welfare Department, Department of Health). The provincial departments then analyze the data on regular basis and make decisions related to quantification and procurement planning. They also provide feedback to districts to improve commodity availability for clients. The feedback could be informal during the monitoring visits or formally in the form of letters and communications.

Supply & Reporting Mechanism for Contraceptive Commodities





Pipeline for Health Commodities for Lady Health Workers Program



The above chart describes the flow of health commodities and LMIS reports in the Lady Health Workers Program. Other programs in the Department of Health (Maternal Neonatal and Child Health, Tuberculosis Program etc.) also follow similar reporting and flow patterns with some variations. Most of the times, the manufacturer or supplier is contracted to ship the commodities to District stores directly. However, the manufacture or supplier does not ship to all District stores in Pakistan and some quantities are shipped CWH (Central Warehouse) for storage and are later transported to Districts. Some districts have geographical proximity to PPIUs and CWH and are easily supplied through these storage facilities. Once in the district store, the commodities are distributed to LHWs via First Level Care Facilities (FLCF).

LHWs report the consumption of health commodities in the monthly FLCF report which is developed at the FLCF level by the incharge of FLCF (physicians mostly) and submitted to District Health Office by the second week of every month. The District prepares a summary of all reports and sends it to Province. The Provinces analyze the logistics data on regular basis to quantify and plan procurements and also sends feedback reports to Districts. The feedback includes informal feedback during monitoring visits and formal in the form of reports and communication

CHEATER'S QUIZ

1. Three (3) activities in the logistics cycle are
2. Where does Quality Monitoring fit in the Logistics Cycle?
3. Why are LMIS data gathered?
4. How does a well functioning logistics system help the population and save the country money?
5. Name the 6 Rights of logistics.
 1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____

Circle TRUE if the statement is true, or FALSE if the statement is false:

- | | | | |
|-----|--|------|-------|
| 6. | An example of lead time would be the three days it takes for your order to get to the regional warehouse.

Also includes the time it takes to get to you and the time it takes to make it available for use. | TRUE | FALSE |
| 7. | In a requisition system, decision-making is centralized. | TRUE | FALSE |
| 8. | Dispensed-to-user data comes only from Service Delivery Points (SDPs) and Lady Health Workers. | TRUE | FALSE |
| 9. | A pipeline is all the storage facilities in a system.
Also includes the transportation involved | TRUE | FALSE |
| 10. | The pipeline for Health Commodities (other than contraceptives) for LHW program flows in this order: Central, PPIU, District Store, First Level, Lady Health Workers | TRUE | FALSE |

SESSION 4 LOGISTICS MANAGEMENT INFORMATION SYSTEM (LMIS)

Exercise on Logistics Forms

Instructions: Attached you will find a variety of logistics records from different countries. Work in your small group to:

- 1) Classify the records by their type – stock keeping, transaction, consumption
- 2) List what type of information should be included in each type of record
- 3) Look at the overall design of each record. Is it easy to complete and follow? Is there enough space to include the information that it requests?

LMIS FORMS

LMIS

Handout 1

Small Group Exercise on Logistics Records

Instructions:

Attached you will find a variety of logistics records from a number of different countries. Working in your small group,

1. Classify the records by their type—stock keeping, transaction, consumption.
2. List what information should be included in each type of record.
3. Look at the overall design of each record—it should be easy to complete, to follow, and allow enough space to complete the lines.

SUPPLIES LEDGER CARD[illegible]

Form 6 ICR

Name of Article

Accounting Unit

Page #

[illegible]

(.....Section)

ISSUE VOUCHER

It is certified Following commodities handed over to Mr/Ms.....of

Store Incharge-

Date-

S.No.	Ledg.No.	Particular	Quantity	Unit	Total Cost	Received date	Remark

•Certified above mentioned commodities are received.

Authorized

Signature of receiver

Discussion

HIS MAJESTY,S GOVERNMENT
MINISTRY OF HEALTH
DEAPRTMENT OF HEALTH
RECEIVE REPORT

No:-

S.No.	Ledg.No.	Particular	Quantity	Unit	Amount		Remark
					Rate	Total	

Certified and posted in the ledger of this office after cheking all the items received from
.....of purchase order No.and Date.....

Date:-

Store Incharge:

LMIS

Handout 1, *over 11*
10-10

REPUBLIC OF MALAWI
MINISTRY OF HEALTH AND POPULATION
Family Planning Clinic Daily Tally Sheet

Name of Clinic:		Month:		Year:	
-----------------	--	--------	--	-------	--

Method of Contraception	New Clients	Subsequent Clients		Restarting Clients	Changing Method
		1st Visit This Year	Revisits This Year		
Le-Reward	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv
Ovula	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv
All Other Oral	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv
Copper T	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv
Other IUCDs	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv
DepoProvera? Injectables	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv
MORPLANT?	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv
Tubal Ligation	vvvvv vvvvv vvvvv vvvvv vvvvv				
Vasectomy	vvvvv vvvvv vvvvv vvvvv vvvvv				
Condoms issued to Registered Clients	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv
Condoms issued to Unregistered Clients	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv
Spermicide Tabs	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv
All Other Methods	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv
Clients Counselling	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv vvvvv vvvvv vvvvv	vvvvv vvvvv	vvvvv

Notes:

- (1) Write contraceptive units/cycles issued on top of the zeros
- (2) Subsequent clients first visit this year are those whose last visit was registered this year
- (3) Subsequent clients revisits this year are those who are visiting for the second, third, or fourth time this year
- (4) Re-starting clients are those who decided to resume after a long period of discontinuation

LMIS

Handout 1.2

General Form No. 3
Revised January 1992

[illegible]

DAILY ACTIVITY REGISTER (FAMILY PLANNING)

S.D.P./Clinic

Name: _____

S.D.P./Clinic

Number: _____

Month:

Year: _____

[illegible]

REQUISITION, ISSUE, AND RECEIPT VOUCHER

Issue Voucher No.: _____

Date: _____ Ship to: _____

	ARTICLE	Quantity			REMARKS
		Requested	Issued	Received	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Approved by: _____ Date: _____

Shipped by: _____ Date: _____

Received by: _____ Date: _____

LOGISTICS RECORDS AND REPORTS TYPES AND DATA

(Essential Data noted with *)

STOCK-KEEPING RECORDS

Types of Stock-keeping Records:

Bin Cards
Inventory Control Cards
Stores Ledgers

Stock-keeping Data:

Stock on Hand*
Losses and Adjustments*
Quantity to Order
Quantity on Order

TRANSACTION RECORDS

Types of Transaction Records:

Requisition and Issue Vouchers
Issue Vouchers
Packing Slips

Transaction Data:

Quantity of product being
ordered/shipped/received
Authorization, usually by signature, to
issue
Proof of receipt, usually by signature
Dates for all parts of the transaction

CONSUMPTION RECORDS

Types of Consumption Records:

Daily activity registers
Tick sheets

Consumption Data:

Quantity dispensed to user*
Time period

Summary Reports

For a specified time period:

Quantity dispensed to user*
Stock on Hand*
Losses and Adjustments*

Note: Each brand and formulation of
each product must be reported
separately.

LMIS REPORTS

Monthly Summary Report of ART Patients

Facility: _____

Month: _____

District: _____

Year: _____

Region: _____

A	ADULT First-Line Regimens	Current No. Patients This Period	Expected No. New Patients Next Period	Total No. of Patients Next Period
A1	AZT 300mg/3TC 150mg + NVP 200mg			
A2	AZT 300mg/3TC 150mg + EFV 600mg			
A3	d4T(30) + 3TC 150mg + NVP 200mg			
A4	d4T(40) + 3TC 150mg + NVP 200mg			
B	ADULT Second-Line Regimens			
B1	AZT 300mg + TDF 300mg + LPV/r 133.3mg/33.3mg			
B2	TDF/FTC 300mg/200mg+ LPV/r 133.3mg/33.3mg			
C	PAEDIATRIC First-Line Regimens			
C1	AZT 10mg/ml + 3TC 10mg/ml + NVP 10mg/ml			
C2	AZT 100mg capsule +3TC 10mg/ml + NVP 10mg/ml			
C3	AZT 100mg capsule +3TC 10mg/ml + EFV 50mg			
C4	d4T 1mg/ml + 3TC 10mg/ml + NVP 10mg/ml			
D	PAEDIATRIC Second-Line Regimens			
D1	ABC 20mg/ml + ddl 10mg/ml (2g)+ NFV 144g PFR			
D2	ABC 20mg/ml + ddl 10mg/ml (2g)+ LPV/r 80mg/20mg/ml			
D3	ABC 300mg + ddl 25mg + NFV 250mg			
E	PMTCT Regimens			
E1	Mother			
E2	Infant			
	Total:			

Report prepared by:

Name/Signature:

Designation:

Reviewed by:

Name/Signature:

Designation:

Federal Ministry of Health

FORM 3 – STATE/PPDs/IPT/MONTH.....

NAME OF REPORTING OFFICER: _____

DESIGNATION: _____

SIGNATURE & DATE

[illegible]

M & E/DSN Officer _____
Signature & Date: _____

NIGERIA

FORM 2: VACCINE UTILISATION MONITORING FORM- DISTRICT SUMMARY

ANTIGEN

DISTRICT _____

MONTH/YEAR _____

[illegible]

Reasons for wastage in order of highest cause- Temperature exceeding $+8^{\circ}\text{C}$ = 1, Temperature below 0°C = 2, Expired vials = 3, Vials without labels = 4

Vials missing diluent = 5, Reconstituted vaccine remaining after 6 hours = 6, Opened vials not used by end of session = 7

Opened vials contaminated = 8, Vials broken = 9, Others (specify) = 10.

Comments on the commonest causes of vaccine wastage_____

Reporting Officer _____

Title _____

Signature _____

Date _____

ANTIGEN _____

MONTH/YEAR _____

[illegible]

Opened vials contaminated = 8, Vials broken = 9, Others (specify) = 10.

Date _____

Bimonthly Report and Order Calculation Form HIV Test Kits

Facility Name: _____ Report Period: _____
 District: _____ month - month/year
 Health Sub-district: _____ Date Prepared: _____
 day - month - year

REPORT											
Serial No.	HIV TEST KITS Description	No. Tests per Kit	Basic Unit	Number of Test Available at the Beginning of the two Months	Total Number of Test Received During the two Months	Total Number of Test Used During the two Months	Losses/ Adjustments (+/-)	Total Number of Test Remaining at the end of the two Months (physical count)	Maximum Stock Quantity	Quantity to Order	Quantity to Ship
				A	B	C	D	E = A + B - C +/- D	F = C x 3	G = F - E	H
1	Determine HIV 1/2	100	1 test								
2	Unigold HIV 1/2	20	1 test								
3	InstantScreen	20	1 test								
4											
5											

Bimonthly Summary of HIV test by Purpose of Use			
	VCT	PMTCT	Clinical Diagnosis
Determine HIV 1/2			
Unigold HIV 1/2			
InstantScreen			

Remarks: _____

Prepared by: _____ Full Name _____ Signature _____ Designation: _____ Date _____
 _____ Full Name _____ Signature _____ Designation: _____ Date _____
 Reviewed by: _____ Full Name _____ Signature _____ Designation: _____ Date _____

Computer-generated Report and Requisition for Antiretroviral Drugs

Report and Requisition for Antiretroviral Drugs

Report Period: December, 2006

Maximum Stock Level: 3.0 months

Facility: Kaleta DHMT

Emergency Order Point: 0.5 months

Facility Code KATET

Product	Unit	Beginning Balance	Total Quantity Received	Total Quantity Dispensed	Adjustments	Physical Count	AMC	New EOP	Order Quantity	Quantity Supplied
AR1277A	Nevirapine 200mg Tablets	0	20	10	0	10	10	5	20	20
AR12167	Zidovudine 300mg Tablets	0	9	2	0	7	3	2	2	2
AR12180B	Nevirapine oral solution 10mg/ml (PMTCT)	0	15	7	0	8	7	4	13	13

Comments

Computer Generated Adjustment of 1 for Nevirapine 200mg Tablets
Damaged Adjustment of 1 for Nevirapine 200mg Tablets

LMU TECHNICAL OFFICER APPROVAL (Signature Name) _____

Date _____

RECEIVED by _____

Signature _____

Date _____

Internal Facility Report, Issue and Receipt Voucher

Name of Dispensing Unit _____

Reporting Period _____ Maximum Level _____

Ser. No.	Item	COMPLETED BY UNIT				COMPLETED BY STORE					
		Stock on Hand at Start of Period	Stock on Hand at End of Period	Expired/ Damage d/ Lost	Qty. Trans.	Estimated Consumption E = A-B-C+/-D	Average Consumption	Maximum Quantity G = F * ML	Quantity Needed to Reach Max. H = G - B	Quantity Supplied	Item Price
		A	B	C	D	E	F	G	H	I	J
1	Condoms (piece)										
2	Depo (vial)										
3	Eugynon (cycle)										
4	IUCD (piece)										
5	Jadelle (set)										
6	Lo-Femenal (cycle)										
7	Microgynon (cycle)										
8	Microlut (cycle)										
9	Microval (cycle)										
10											
...											
15											

Requested by: _____

Issued by: _____

Approved by: _____

Received by: _____

Signature: _____

Signature: _____

Signature: _____

Signature: _____

Date: _____

Date: _____

Date: _____

Date: _____

EXERCISE: EXCERPT FROM SITE VISIT MONITORING AND SUPERVISION REPORT

Name of facility: *Smalltown Health Center*

4. The facility has:

	Yes	No
A locked drawer for keeping patient records	X	
A working refrigerator	X	
A locked cabinet for keeping high value or restricted items	X	
Plastic bags for dispensing pills, tablets, etc.	X	
Shelves for stacking bottles, boxes, etc.	X	

Comments:

*Drawer and cabinet have working locks but were unlocked at time of visit.
Refrigerator well maintained.*

6. Products are arranged:

	Yes	No
To facilitate FEFO		X
With usable products separated from unusable products	X	
According to therapeutic category	X	

Comments:

Some first to expire products are placed behind later to expire products.

7. The storeroom has:

	Yes	No
Fans or air conditioning to reduce room temperature	X	
A backup generator	X	
Firefighting equipment or supplies (fire extinguisher)		X
Adequate security measures	X	

Comments:

*Three of the four fans are in working order.
Sand bucket only half filled.*

10. The following commodity management tools are available:

	Yes	No
Requisition vouchers	X	
Monthly report forms	X	
Stock cards	X	

Comments:

Signature of Supervisor: *Mohammad Biggleswade*

		CODE:		AR12175B	
ITEM DESCRIPTION:		Stavudine/Lamivudine/Nevirapine Tabs		STRENGTH: 30/150/200mg	
UNIT		Bottle of 60			

DATE	REF. No.	ISSUED TO OR RECEIVED FROM	REC'D (+)	ISSUED(-)	LOSSES and ADJUST-MENTS	BALANCE	NAME/ SIG.	REMARKS
03/01/06		Physical Inventory				435	GRR	
14/01/06		Dispensing Area		90		345	GRR	
15/01/06	321	MSL	120			465	GRR	
23/01/06		Dispensing Area		100		365	GRR	
31/01/06		Physical Inventory				365	GRR	
04/02/06	123	Jambo HC			- 50	315	GRR	Loaned out
07/02/06		Dispensing Area		120		195	GRR	
18/02/06		Dispensing Area		110		85	GRR	
03/03/06		Physical Inventory				85	GRR	
14/03/06		Loss			- 1	84	GRR	Damaged by Kerosene
15/03/06	821	MSL	300			384	GRR	
16/03/06		Dispensing Area		100		284	GRR	
21/03/06		Loss			- 10	274	GRR	Expired
18/04/06		Dispensing Area		90		184	GRR	
20/04/06	891	MSL	200			384	GRR	
28/04/06		Dispensing Area		100		284	GRR	
02/05/06		Jambo HC			-50	234	GRR	Loaned out
09/05/06		Dispensing Area		110		124	GRR	
20/05/06		Dispensing Area		100		24	GRR	

Population Welfare Department LMIS forms

Contraceptive Stock Register - CLR 5

This register is maintained by all warehouses and stores i.e. central and provincial warehouses, district stores, family welfare center stores and RHS-A centers. The form is meant to identify the source from whom any quantity is received and the consignee to whom any quantity has been issued from the warehouse/store. The form also contains the signature and remarks of the person receiving or issuing the contraceptives. The 'balance (column 7)' indicates the balance brought forward from the previous register and regular entries thereafter.

CLR-5

CONTRACEPTIVE STOCK REGISTER

Contraceptive _____ A/C Unit _____

[illegible]

REQUISITIONING / ORDER FORM

Integrated CLR-6

This form is used by all district level public sector Family Planning Service Providers (DPWO, DOH & LHW, PPHI) for requesting contraceptives from Central Warehouse.

The new integrated CLR-6 was introduced in 2012 and it compiles requests from departments of Health and Population at district level. This form indicates the stock status and consumption during the past quarter and indicates the quantity requested for each contraceptive for this quarter. Immediately below is a job aid which explains how to complete the form with the CLR 6 following.

Job Aid: Completing the Integrated Contraceptive Requisition Form CLR 6

Purpose:	To request contraceptives from Central Warehouse and provide a report on consumption and stock status to PWD, DOH and P& D
Used by:	All district level public sector Family Planning Service Providers (DPWO, DOH & LHW, PPHI)
Completed By:	District level Officer in Charge at the DOH and PWD
When to Perform:	Quarterly
Materials Needed:	Updated Stock Cards for last 3 months, LMIS Reports, calculator, pen
Signed by:	District Population Welfare officer and Executive District Officer Health

Step	Action	Notes
1	For: Insert the name of the person or position who the Requisition is intended for	For Example: Director of Central Warehouse
2	Requisition No: Insert the appropriate Requisition number	This is determined by each District. Consult with the In Charge.
.3	Requisition Date: Write the date that you are sending in this order.	The Requisition should be completed at the end of the reporting period. Example: 1 April 2013
4	Department of Health Sections A – D All steps are completed by following the instructions below. The only difference is who fills out sections A – D.	Section A is completed by the District Officer for the district Section B is completed by the District Program Implementation Unit (DPIU) Section C is completed by PPHI/CMIPCH Section D is completed by MNCH
5	<u>Section A</u> A-D 1 Provide the consumption at your facility for the past quarter	Completed by Executive District Officer Provide this information for all products/columns on the form.
6	A-D 2 Provide the amount of stock on hand at the district store at the end of this quarter	Conduct a physical inventory and update your stock cards afterwards.
7	A-D 3 Provide total amount of stock at all health outlets in this district at the end of this quarter	Find this by reviewing all facility reports.
8	A-D 4 Determine the desired stock amount for the next two quarters.	Multiply the figure in A1 by 2. (Double your consumption for the quarter that just ended)
9	A-D 5 Determine your replenishment	(A5 - A4) subtract how much stock you have from the total you wish to have for the next period.

1	Population Welfare Department Sections E – H All sections are completed by following the steps below. The only difference is who fills out parts E – H.	Section E is completed by DPWO Section F is completed by Reproductive Health Centers (RHS) Section G is completed by Marie Stopes Int'l Section H is completed by Family Planning Associations of Pakistan (FPAP) Each Section has two parts - an A and B. Each part A and B is the same for all Sections
2	Section E – H, Part A1 Avg. quarterly sale on the basis of last three months consumption	Calculate the average sale per month based on the last quarter consumption and write in Pak rupees. The condoms are sold at 0.5 Rs per unit while all other contraceptive at 3 Rs. / unit or cycle
3	E – H, A2 Sale/Use Last Month	Indicate sale in Pak rupees for all contraceptives in this cell. The sale is calculated by multiplying the use/consumption by sale prices
5	E – H, A3 Amount of sales proceeds deposited in bank/treasury (Attach original paid challan)	Write amount that was deposited from these sales into the bank or treasury. Remember to keep track of your receipts or bank numbers
6	E – H, A4 Bank/Treasury challan no. & Date	Write the reference number of challan no. with date
7	E – H, B1 Consumption during the last quarter	Add up the total consumption for all products during the quarter that just ended. Find this information from the web-based LMIS if consumption data is regularly entered into it every month

8	E – H, B2 Stock at the end of last quarter at district Store	This should be done by conducting a physical count. Update the corresponding stock cards at the same time so your true balance is known.
9	E – H, B3 Stock at the end of last quarter at health facilities	Add the monthly reports from all the health facilities in the district. Make estimates for non-reporting facilities
10	E – H, B4 Total Stock Available	Add steps 2+3 above
11	E – H, B5 Desired stock level for 2 quarters	Multiply step 1 (Consumption during the last quarter) X 2
12	E – H, B6 Replenishment Requested	Subtract step 4 from step 5 desired stock level – total stock available

Task is complete when:

- ☐ The Requisition Number and Date are filled in.
- ☐ When either sections A- D or sections E – H have been completed for the 9 commodities.
- ☐ The Maximum Quantity for the District to have on hand is calculated
- ☐ The Order Quantity is calculated.
- ☐ The name, signature and date of the person are filled in.
- ☐ An authorized person signs and dates the requisition
- ☐ Send CLR 6 to Central Warehouse
- ☐ Confirm CWH has received CLR 6

See Exercise below

CLR 6 Exercise

Following is the consumption data for COC in your district. Please fill in the appropriate cells in the CLR-6 form to complete the requisition.

COC issued to clients from facilities during from 01 Oct to 31 Dec 2013

	Facility- A	Facility- B	Facility- C	Facility- D
Consumption	832	765	1,032	755
Stock on hand (as of 31 Dec 2013)	1,003	432	654	109

Stock on hand at district store as of Dec 31, 2013 is 1,200 cycles of COC

S.No	Description	COC (No.)
1	2	3
PART - A (To be filled by Requester)		
A-1	Consumption during the last quarter	
A-2	Stock at the end of last quarter at district Store	
A-3	Stock at the end of last quarter at health outlets	
A-4	Total Stock Available (A2+A3)	
A-5	Desired stock level for 2 quarters (A1x2)	
A-6	Replenishment Requested (A5-A4)	

Contraceptive Requisitioning Form (Integrated CLR-6)

For: _____ Requisition No.: _____ Requisition Date: _____

DEPARTMENT OF HEALTH											
A - Executive District Officer-EDO Health (Static Facilities)											
S. No.	Description	Con dom (no.)	Oral Pills (m. cycles)			IUD (pieces)		Injectables (vials)		Implant	Remarks
			POP	COC	EC	Multiload	Copper-T	Norigest (NET-EN)	Megestron (DMPA)		
1	2	3	4	5	6	7	8	9	10	11	12
PART - A (To be filled in by requester)											
A-1	Consumption during the last quarter										
A-2	Stock at end of last quarter at district store										
A-3	Stock at the end of last quarter at health outlets										
A-4	Total stock available (A2 + A3)										
A-5	Desired stock level for 2 quarters (A1 x 2)										

S. No.	Description	Con dom (no.)	Oral Pills (m. cycles)			IUD (pieces)		Injectables (vials)		Implant	Remarks
			POP	COC	EC	Multiload	Copper-T	Norigest (NET-EN)	Megestron (DMPA)		
1	2	3	4	5	6	7	8	9	10	11	12
A-6	Replenishment requested (A5 - A4)										
B - District Program Implementation Unit - DPIU (Community-based distribution - LHW Program)											
PART - A (To be filled in by requester)											
B-1	Consumption during the last quarter										
B-2	Stock at the end of last quarter at district store										
B-3	Stock at the end of last quarter at health outlets										
B-4	Total stock available (B2 + B3)										
B-5	Desired stock level for 2 quarters (B1 x 2)										
B-6	Replenishment requested (B5 - B4)										
C- PPHI/CMIPHC (static facilities)											
PART - A (To be filled in by requester)											
C-1	Consumption during the last quarter										
C-2	Stock at the end of last quarter at district store										
C-3	Stock at the end of last quarter at health outlets										

S. No.	Description	Con dom (no.)	Oral Pills (m. cycles)			IUD (pieces)		Injectables (vials)		Implant	Remarks
			POP	COC	EC	Multiloal	Copper-T	Norigest (NET-EN)	Megestron (DMPA)		
1	2	3	4	5	6	7	8	9	10	11	12
C-4	Total stock available (C2 + C3)										
C-5	Desired stock level for 2 quarters (C1 x 2)										
C-6	Replenishment requested (C5 - C4)										
D - Maternal, Neonatal, and Child Health (MNCH)											
PART - A (To be filled in by requester)											
D-1	Consumption during the last quarter										
D-2	Stock at the end of last quarter at district store										
D-3	Stock at the end of last quarter at health outlets										
D-4	Total stock available (D2 + D3)										
D-5	Desired stock level for 2 quarters (D1 x 2)										
D-6	Replenishment requested (D5 - D4)										
Total Replenishment for DoH											

S. No.	Description	Con dom (no.)	Oral Pills (m. cycles)			IUD (pieces)		Injectables (vials)		Implant	Remarks
			POP	COC	EC	Multiloal	Copper-T	Norigest (NET-EN)	Megestron (DMPA)		
1	2	3	4	5	6	7	8	9	10	11	12
POPULATION WELFARE DEPARTMENT											
E - District Population Welfare Office - DPWO											
PART - A & B (To be filled in by requester) Part -A											
1	Avg. quarterly sale based on last three months consumption										
2	Sale/use last quarter										
3	Amount of sales proceeds deposited in bank/treasury (attach original paid challan)										
4	Bank/treasury challan no. & date										
PART-B											
E-1	Consumption during the last quarter										
E-2	Stock at the end of last quarter at district store										
E-3	Stock at the end of last quarter at population outlets										
E-4	Total stock available (E2 + E3)										
E-5	Desired stock level for 2 quarters (E1 x 2)										
E-6	Replenishment requested (E5 - E4)										

S. No.	Description	Con dom (no.)	Oral Pills (m. cycles)			IUD (pieces)		Injectables (vials)		Implant	Remarks
			POP	COC	EC	Multiload	Copper-T	Nonigest (NET-EN)	Megestron (DMPA)		
1	2	3	4	5	6	7	8	9	10	11	12
F - Reproductive Health Centers (RHS-A)											
PART - A & B (To be filled by requester) Part -A											
1	Avg. quarterly sale based on the last 3 months consumption										
2	Sale/use last quarter										
3	Amount of sales proceeds deposited in bank/treasury (attach original paid challan)										
4	Bank/treasury challan no. & date										
PART-B											
F-1	Consumption during the last quarter										
F-2	Stock at the end of last quarter at district store										
F-3	Stock at the end of last quarter at health outlets										
F-4	Total stock available (F2 + F3)										
F-5	Desired stock level for 2 quarters (F1 x 2)										
F-6	Replenishment requested (F5 - F4)										
Total Replenishment for PWD											

S. No.	Description	Con dom (no.)	Oral Pills (m. cycles)			IUD (pieces)		Injectables (vials)		Implant	Remarks
			POP	COC	EC	Multiload	Copper-T	Nonigest (NET-EN)	Megestron (DMPA)		
1	2	3	4	5	6	7	8	9	10	11	12
Grand Total											
PART - B (To be filled in at warehouse)											
Quantity approved											
Relevant issue voucher											

EDO(H)/DHO

DPWO

Signature: _____

Signature: _____

Name: _____

Name: _____

Designation: _____

Designation: _____

Date: _____

Date: _____

REPORT

District Contraceptive Stock Report (CLR-15)

The report has two parts. Part-I related to the position at the District Store and Part-II indicates the stock and sales position at various categories of the field operational units. The commodities issued from district store should be the same as received by field level. The commodities issued from field levels (indicated as sold in the form) are used as a proxy for consumption where 'dispense to user' data is not available.

CLR-15

District Contraceptive Stock Report

Distribution

1. Province Office
2. Office Copy For the Month of _____ Year _____ Name of District _____

(PART -I)																			
District Store	CONDOM (Units)	ORAL PILL (Cycles)			IUD (Pieces)		INJECTABLE (Vials)		Norplant	Contraceptive Surgery (Cases)		REMARKS							
		(Micrognon/ Le- Feminal/etc)	Exluton Tab/etc	Postinor2/etc		Multiload/ etc	Norigest/etc	Megestron/De po/etc		CS (Cases)									
										COC	POP		(EC)	Copper-T 380- A	Copper-T 375	Net-En	DMPA	Male	Female
1	2	3	4	5	6	7	8	9	10	11	12	13							
1. Opening Balance																			
2. Received From Central WareHouse																			
3. Issued To Field																			
4. Closing Balance																			
(i) District Store																			
(ii) Field												CS (Cases)							
Total																			
5. Expired Stock																			
6. Untraceable Stock																			

(PART -II)																			
Field	CONDOM (Units)	ORAL PILL (Cycles)			IUD (Pieces)		INJECTABLE (Vials)		Norplant	Contraceptive Surgery (Cases)		REMARKS							
		(Micrognon/ Le- Feminal/etc)	Exluton Tab/etc	Postinor2/etc		Multiload/ etc	Norigest/etc	Megestron/De po/etc		CS (Cases)									
										COC	POP		(EC)	Copper-T 380- A	Copper-T 375	Net-En	DMPA	Male	Female
1	2	3	4	5	6	7	8	9	10	11	12	13							
01. FWCs																			
Opening Balance																			
Received From District Store																			
Sold																			
Closing Balance																			
02. MSUs																			
Opening Balance																			
Received From District Store																			
Sold																			

Received From District Store												
Sold												
Closing Balance												
10. DDPs												
Opening Balance												
Received From District Store												
Sold												
Closing Balance												
11. TBAs												
Opening Balance												
Received From District Store												
Sold												
Closing Balance												
12. Counters												
Opening Balance												
Received From District Store												
Sold												
Closing Balance												
13. Field Total												
Opening Balance												
Received From District Store												
Sold												CS (Cases)
Closing Balance												
(PART -III)												
EDO (Health)	CONDOM (Units)	ORAL PILL (Cycles)			IUD (Pieces)		INJECTABLE (Vials)		Norplant	Contraceptive Surgery (Cases)		REMARKS
		(Micrognan/ Lo- Feminal/etc)	Exluton Tab/etc	Postinor2/etc		Multiload/ etc	Norigest/etc	Megestron/De po/etc		CS (Cases)		
		COC	POP	(EC)	Copper-T 380- A	Copper-T 375	Net-En	DMPA		Male	Female	
1	2	3	4	5	6	7	8	9	10	11	12	13
Sold												

OTHER CONTRACEPTIVE LOGISTICS FORMS

DOH-2

LHV requests for commodities through DOH-2 from EDO(H) and collect the commodities during monthly meetings. This form has requester particulars that include District & Tehsil names along with name of outlet.

The other indicators are Opening balance, Received, Sold/Dispensed, closing Balance and Next Month demand.

DoH-1

This form is being used by EDO(H) to report Monthly Contraceptive Performance Report . this report then fed into the HMIS.

The indicators of this form are Contraceptive sold/dispensed, Current Month, Previous month and %age increase/decrease

RHC-F-1

This is form is prepared by Health Outlets each month and report then sends to EDO(H). This form contains the service delivery indicator along with contraceptive new and older cases served during this month.

CLR-5

This is contraceptive Stock Register. This register is being maintained in all warehouses and stores at central, provincial, districts, FWCs, RHS centers etc. Separate pages is being maintained to record each contraceptive.

FWC-F-1

This is form is prepared by FWC each month and report then sends to DPWO. This form contains the service delivery indicator along with contraceptive new and older cases served during this month.

The logistics indicators for contraceptive also included in this form

MSU-F-1

This is form is prepared by MSU (Mobile Services Unit) each month and report then sends to DPWO. This form contains the service delivery indicator along with contraceptive new and older cases served during this month. The other indicators of this form are Staff Position, Equipment, General Medicine Stock and vehicle Conditions

The logistics indicators for contraceptive also included in this form

CLR-15

This is District Contraceptive Stock Report. Part-I of this report relates to the position at the district store and part-II indicates the stock and sales position at categories of field operational unit.

CLR-11

This is Provincial Contraceptive Stock Report (district wise). This report is prepared by Monitoring and Provincial Cell of Provincial Offices every month for submission of M&S wing of MoPW. This report is prepared separately district wise for each type of contraceptive.

CLR-8

This is monthly Warehouse Contraceptive Stock and Dispatch Report. This report is prepared by Central and Provincial Warehouse each month and sends to Director PME. Part-A of the report indicates the accountability and stock position. Part-B is a breakdown of dispatches to various categories of recipients

LHW LMIS Forms

BIN CARD

This indicates the balance of a specific item available in the stock; it is used for all levels of storage facilities.

Lady Health Workers Program

Name of Article

Accounting Unit:

Mfg Date

Batch No.

Exp. Date

Date	Description	Quantity		Balance	Initials
		Receipt	Issued		

BIN CARD MUST SHOW ALL REQUIRED INFORMATION

- Name of commodity
- Accounting Unit
- Batch No. of commodity (if applicable)
- Manufacturing date
- Expiry Date
- Date received/ issued
- Description
- Quantity of commodity received/ issued
- Balance
- Initials of storekeeper.

HOW TO USE THE BIN CARD

- One card must be used for each stack of commodity.
- For each type of commodity, the Storekeeper of the warehouse / store must prepare the card.

Name of Item/ Article

Name of the item along with specifications must be written as shown in the example.

Accounting Unit

It is the individual piece contained in the standard packing of a product. It is very important to note that supplies must always be requisitioned, issued and reported in terms of their fundamental accounting unit.

Batch No.

Batch No. of the commodities, if any, (written on the packing by manufacturers) must be clearly mentioned.

Mfg./ Exp. Date

In specified columns, manufacturing/ expiry dates on the medicines/ contraceptives (written on the packing by manufacturers) must be mentioned.

Date

In this column, date must be mentioned on which date transactions (issued/ receipt) are made.

Description

In this column, it must be mentioned from where the material has been received or to whom it is issued on a particular date.

Signature

Initials of storekeeper must appear against all entries on the Bin Card.

Note: It is important that entries on the Bin Card must be recorded on the same date on which the transaction is actually made.

Example

40,000 tablets of Paracetamol were in the stock at the DPIU Sanghar store. 100,000 tablets were received on 12-09-2002 from PPIU and 60,000 tablets were distributed from DPIU store to 5 different health facilities on 13-09-2002. The entries made on the Bin Card are as follows:

NATIONAL PROGRAMME FOR FAMILY PLANNING AND PRIMARY HEALTH CARE

BIN CARD

Name of Article PARACETAMOL TAB 500mg Accounting Unit TABLET Batch
No. 123454
Mfg. Date: 08-98 Exp.Date: 08-2003

Date	Description	Quantity		Balance	Signature
		Receipt	Issued		
12/09/2002	Opening balance			40,000	
12/09/2002	Received from PPIU	100,000		140,000	
13/09/2002	Issued to health facilities		60,000	80,000	

CONSUMPTION RECORD

Accurate information on quantities of commodities distributed by the LHWs to the community in intervals of one month is essential for proper management and replenishment. Submission of monthly reports by the LHWs to the concerned FLCF takes place in the first week of the following month. Amounts/quantities equivalent to the consumed commodities will be replenished. FLCF staff must consolidate the data, and submit the report to DPIU in the second week. Subsequently the District PIU staff will compile the District Monthly Reports and will submit them to PPIU/RPIUs in the third week. At PPIU/RPIU Provincial Monthly Report will be completed for onward submission to FPIU before the end of the fourth week.

FLCF MONTHLY REPORT (LMIS)

In FLCF monthly report, the portion relevant to LMIS is LHW Kit at Serial No. 7.

Instruction for filling the FLCF, LMIS portion

- **Received**
Quantity and date of receipt of commodities from DPIU during the reporting month are recorded in this column.
- **Quantity distributed**
The quantities of commodities distributed to the LHWs are written in this column. The quantity distributed to each LHW will be written using the LHW's individual code number as allocated to her.
- **Present stock**
The balance of commodities present in the FLCF is calculated at the end of each month as under:

$$\text{Present stock} = \text{Previous Balance} + \text{any stock received during reporting month from DPIU} - \text{any stock distributed to LHWs during the reporting period.}$$
- **Days out of stock**
Number of days for which the drugs/medicines/contraceptives remained out of stock in the store of the facility during the reporting month will be written

NATIONAL PROGRAMME FOR FAMILY PLANNING

AND PRIMARY HEALTH CARE

District Quarterly Inventory Report & Request for Commodities

District _____

Working LHWs

Report for Quarter Beginning

200

Ending

200

I	II	III	IV	V	VI	VII	VIII	IX	X	XI
Item Name	Opening Balance at DPIU	Received during last Qtr. From PPIU	Total qty. (II + III)	Issued during last Qtr. To FLCFs	Average Monthly Consumption AMC	Total requirement (VI x 5.5 months)	Balance at DPIU (IV - V)	Balance at FLCF	Total Balance in the District (VIII + IX)	Net Requirement (VII - X)
Paracetamol Tablets										
Paracetamol Syrup										
Choloquine Tablets										
Choloquine Syrup										
Piprazine Syrup										
Ferrous Fumerate + Folic Acid Tab.										
Sticking Plaster										
Antiseptic Lotion										
Cotton Wool										
Cotton Bandages										
Eye Ointment										
Mebendazole Tablets										
O.R.S.										
Benzyl Benzoate Lotion										
Condom										
Oral Contraceptive Pills										
Inj. Depoprovera										
IUCDs										

Prepared By:

Signature _____ Countersigned by EDO(H)/District Coordinator:

Date: _____

How to use Inventory Report/ Requisition forms

1. The Inventory Report/Requisition Forms are filled by DPIU and FLCF, for requesting drugs/medicines/commodities (supplies) from the Provincial/Regional warehouses and DPIU stores.
2. Requisition form are prepared and submitted by PPIUs/RPIUs on annual basis, while DPIUs and FLCFs on quarterly basis.
3. At Provincial/Regional PIUs, it will be prepared by the Logistics Officers, District Coordinators at DPIUs level and at the facility by the concerned store official.
4. Each form is prepared in duplicate. The requisitioning office submits one copy to the issuing office and the other copy is retained at the requisitioning office.

SDP/Health Facility Monthly Contraceptive Report and Requisition

Facility: _____ District: _____

Reporting Month: _____

Item Name	Opening Balance	Received	Issued	Adjustments		Closing Balance	Next Month Requirement
				(+)	(-)		
Condoms							
COC							
POP							
ECP							
Copper-T							
Multiloop							
2-month Inj.							
3-month Inj.							
Implanon							

Prepared by:

Signature: _____

Name: _____

Designation: _____

Date: _____

Verified by:

Signature: _____

Name: _____

Designation: _____

Date: _____

Sample Feedback Reports

The following 17 pages are samples of LMIS Feedback Reports

Sample Feedback Reports

- **Philippines Feedback Report**
- **Excerpts from Bangladesh Feedback Report**
- **Sample reports from Supply Chain Manager**



Republic of the Philippines
 Department of Health
FAMILY PLANNING SERVICE
 San Lazaro Compound, Sta. Cruz, Manila
 Telephone No: 743-83-01 to 23 ext. 3502/3503
 Fax No.: (632) 711-60-85



14 May 1998

FRANCISCO M. DUMAYAS, M.D.
 PROVINCIAL HEALTH OFFICER
 PROVINCIAL HEALTH OFFICE
 ILOILO PROVINCIAL CAPITOL
 ILOILO CITY

06-04-00-000-000-28

Attention: EDDLMS Delivery Team

Dear Dr. Dumayas:

Enclosed please find the EDDLMS Summary Delivery Report printout for ILOILO for the 1998 2ND Quarter round of contraceptive deliveries.

Thank you for your submission of the forms which made the production of the Summary Delivery Report possible.

Part I SDR Analysis --- In analyzing the Summary Delivery Report, we noted that:

1. We received 60 EDOFs and RIVs out of 60 facilities expected to receive contraceptive deliveries. There is a total of 60 facilities in your area.
2. The EDOFs from the following facilities were TEMPORARILY EXCLUDED from the Summary Delivery Report because of the following reasons:

Facility	Stock	Reason
RIVERA FP CLINIC	IUD Tcu-380	Stock not filled
MIAGAO RHU II	IUD Tcu-380	Stock not filled
SAN JOAQUIN RHU	CONDOM	No RIV Stock Removed
SAQUIAN MEDICAL CL.	IUD/DEPO-PROVERA	Stock not filled
CABATUAN RHU	LO-GENTROL	No RIV Stock Removed

We would also like to follow-up the EDOFs from facilities which were temporarily excluded from previous SDRs:

Facility	Stock	Comments
TIGBAUAN RHU	DEPO-PROVERA	SOH > T.A.
GUIMABAL DIST. HOSP.	IUD Tcu-380	Not properly filled

Could you please send the corrected EDOFs and/or RIVs of the currently EXCLUDED facilities and the PREVIOUSLY EXCLUDED facilities so that we can make the necessary revisions on your next Summary Delivery Report

3. The following facilities had STOCKOUTS at the time the delivery team arrived:

Facility	Stock
DINGLE RHU	DEPO-PROVERA 150
PAVIA RHU	IUD TCu-380
PASSI DISTRICT HOSP.	IUD TCu-380/DEPO-PROVERA 150
R.TABIANA MEM.DIST.HOSP.	DEPO-PROVERA 150
CABATUAN RHU	DEPO-PROVERA 150
SARA DISTRICT HOSPITAL	IUD TCu-380
AJUY RHU	IUD TCu-380
CONCEPCION RHU	IUD TCu-380
LEMERY RHU	IUD Tcu-380
ESTANCIA RHU	IUD Tcu-380
CARLES RHU	IUD Tcu-380

Kindly remind them that when they reach a One Month Supply Status (AMU), they should already place an Emergency Order.

4. The following facilities' BALANCE END OF LAST DELIVERY, column A on the EDOFs did not tally with the ENDING balance on the SDR of the last delivery. The facilities' BALANCE END OF LAST DELIVERY have been corrected by the computer. Please take note of the ENDING BALANCE on the Summary Delivery Report for this quarter as this is the correct balance to be used for the next Delivery Run of the following facilities:

Facility	Stock Description	EDOF	Corrected
BALASAN RHU	LO-GENTROL	1,641	2,900
	CONDOM	1,128	800
	DEPO-PROVERA 150	189	209
BAROTAC NUEVO RHU	CONDOM - 52 MM.	2,273	4,073
OTON RHU II	LO-GENTROL	2,442	2,042
SAN MIGUEL RHU	DEPO-PROVERA 150	217	252

5. There was a difference in the quantity delivered/removed between the EDOF and the RIV in LEGANES RHU (DEPO-PROVERA = EDOF=100/RIV = 18).

PART II. --- In analyzing the EDDL MIS Inventory Report for 1998 2ND Quarter, we noted that:

There were discrepancies and errors between the following balances reported in the EDDL MIS Inventory Report as against the computer-calculated balances.

1.) STOCK DELIVERED

	INVENTORY REPORT	SDR	DIFFERENCE
LO-GENTROL			5,400
CONDOM			200
IUD			3
DEPO-PROVERA			927

2.) EMERGENCY ORDER GIVEN

	IN	DIFFERENCE
IUD		15
DEPO-PROVERA	-	2

May we suggest that you review the SDR and the EDDL MIS Inventory Report that you have submitted to us in order to identify the causes of discrepancies.

In addition, may we note that:

- For the LPP benchmark 85% of your facilities have at least one month supply of Lo-Gentrol and Condom for this quarter's delivery run. If you maintain or even improve this performance through the next national benchmark assessment, you will be able to pass the LPP Logistics benchmark. For all items (LO-GENTROL, CONDOM, IUD & DMPA), 60% of your facilities have at least one month supply.
- The EDDL MIS forms were received by the Central Office 46 days after the last day of Delivery. EDDL MIS forms received by the Central Office more than 15 days after the last day of Delivery, cause delays in shipment of commodities to your provincial warehouse and processing of the SDR.

দু'টি সম্ভাব্যের বেশী নয়
একটি হলে ভাল হয়

EXCERPTS FROM:

Family Planning Monthly Logistics Report

September 2005



Management Information System (MIS)
Directorate General Of Family Planning

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ACTION LIST FOR SUPPLY OFFICER AT WAREHOUSES FOR OCTOBER 2005

1. ACTIONS FOR CWH, DHAKA (Page 12-13)

- a. **Stock out:** - Stock out of Condom in Kushtia, Sylhet & Tangail RWH and of Inj. Depo-Provera in Pabna RWH. Please supply on priority basis to bring up the stock to satisfactory level.
- b. **Potential stock out:** - Potential stock out of Condom in Rangpur RWH, Lohajang & Srinagar upazila; of Inj. Depo-Provera in Jessore, Mymensingh & Patuakhali RWH; of IUD in Comilla, Mymensingh & Tangail RWH, Keraniganj, Monohardi & Palash upazila and of Shukhi in Tangail RWH. Please supply to bring up the stock to satisfactory level.

2. ACTIONS FOR RWH, BOGRA (Page-14)

- a. **Potential stock out:** - Potential stock out of Condom in Akkelpur upazila. Please supply to bring up the stock to satisfactory level.

3. ACTIONS FOR RWH, CHITTAGONG (Page-15)

- a. **Potential stock out:** - Potential stock out of Condom in Noakhali RWH; of Inj. Depo-Provera in Rangamati RWH and of Shukhi in Comilla RWH & Laksmichhari upazila (there is no field distribution of IUD in Laksmichhari upazila). Please supply to bring up the stock to satisfactory level.

4. ACTIONS FOR RWH, KHULNA (Page-16)

- a. **Stock out:** - Stock out of IUD in Kalarua upazila. Please supply on priority basis to bring up the stock to satisfactory level.

5. ACTIONS FOR RWH, BANDARBAN (Page-17)

- a. **Stock out:** - Stock out of IUD in Chakaria & Mahesh Khali upazila. Please supply on priority basis to bring up the stock to satisfactory level.
- b. **Potential stock out:** - Potential stock out of Condom in Teknaf upazila & of Inj. Depo-Provera in Lama & Mahesh Khali upazila. Please supply to bring up the stock to satisfactory level.

6. ACTIONS FOR RWH, BHOLA (Page-18)

Summary of Important Logistics Activities

During the Month of September 2005

- 1. Warehouse Inventory Management System (WIMS):** CWH and RWHs are using WIMS.
- 2. During the Month of September, 2005 Directorate General of Family Planning has received and distributed the following contraceptives and other items:**

Name	Receipts	Distribution
	Quantity	Quantity
Condom (pcs)	Nil	7,227,660
Shukhi (cycles)	4,147,200	7,656,747
Ovral (cycles)	Nil	35
Inj. Depo-Provera (vial)	Nil	1,147,014
Disposable Syringe (pcs)	Nil	1,136,937
CT-380A	Nil	22093
CT-200B (pcs)	Nil	8
Total of IUD (pcs)	Nil	22,101
DDS Kits (boxes)	Nil	4,486
DDS Kits (CC) (boxes)	Nil	2
DDS Kits (FWC) (boxes)	Nil	2,324
Total of DDS Kits (boxes)	Nil	6,812
Implant (sets)	Nil	8,965
Standard Dose (cycles)	Nil	229
ECP Pill (doses)	Nil	13,385

BEST AND WORST WAREHOUSES

According to the ranking order in respect of performance on Month of Stock:

1. **Best Warehouse in September 2005:** **Patuakhali Regional Warehouse**
(Ranking Point 92%)
2. **Worst Warehouse in September 2005:** **Bandarban Regional Warehouse**
(Ranking Point 50%)

CONGRATULATIONS

Congratulations to the Supply Officer and other staff members of Patuakhali Regional Warehouse for their excellent performance in achieving 92% satisfactory stock of all contraceptives in upazila covering by the RWH during September 2005.

UNSATISFACTORY PERFORMANCE

We are sorry for unsatisfactory performance of Bandarban Regional Warehouse for its worst performance in achieving 50% satisfactory stock of all contraceptives in upazila covering by the RWH during September 2005.

List of Non-reported Upazila From (Apr, 2005 To Sept, 2005)

Supplier	Zila	Upazila	April	May	June	July	Aug	Sept
Dhaka CWH	Dhaka	Nawabganj (Dhaka)						NR
	Manikganj	Daulatpur (Manikganj)						NR
Faridpur RWH	Gopalganj	Gopalganj					NR	NR
		Tungipara	NR					
	Madaripur	Kalkini						NR
Mymensingh RWH	Mymensingh	Bhaluka		NR				
		Ishwarganj						NR
		Muktagacha					NR	
		Phulpur	NR					
		Trishal						NR
Pabna RWH	Pabna	Sujanagar				NR	NR	
	Seraiganj	Seraiganj					NR	
		Shahjadpur					NR	
Rangpur RWH	Rangpur	Taraganj						NR
Sylhet RWH	Moulavibazar	Moulavibazar						NR
Tangail RWH	Tangail	Gopalpur			NR			
Bandarban RWH	Bandarban	Alikadam						NR
		Rowangchhari					NR	
Comilla RWH	Brahmanbaria	Nasirnagar						NR
Noakhali RWH	Feni	Sonagazi					NR	
	Laksmipur	Ramganj					NR	NR
Khulna RWH	Pirojpur	Kawkhali						NR
		Perojpur						NR

NR = Non Reported

Highlights

MIS Logistics Report

September, 2005

National (GOB + NGO) Consumption and Closing Balance

Name of Product	Reported Consumption (GOB + NGO)	100% Adjusted Consumption (GOB + NGO)	Reported Closing Bal. (GOB + NGO)	100% Adjusted Closing Balance (GOB + NGO)	Month of Stock (MOS)
Condom	7,026,462	7,227,660	36,924,187	37,741,656	5.2
O.P.C-5					
Ovral	34	35	6	6	.2
Copper - T 380A	21,478	22,093	160,024	163,499	7.4
Depo_Provera	1,115,084	1,147,014	15,791,300	15,914,879	13.9
Noristerat					
Doryxas					
Implant	8,715	8,965	53,115	54,309	6.1
Disposable Syr.	1,105,288	1,136,937	13,080,591	13,204,432	11.6
DDS Kit	4,361	4,486	10,802	10,970	2.4
Satelite C. Kits	1	1	3	3	3.0
Shukhi	7,443,604	7,656,747	89,740,048	91,155,208	11.9
Copper - T 200B	8	8	258	265	33.1
Total IUD (380 A + 200 B)	21,486	22,101	160,282	163,764	7.4
Injectable - Megisterone					
Total DDS Kits	6,622	6,812	15,289	15,559	2.3
DDS kit (CC)	2	2	9	9	4.5
DDS kit (FWC)	2,259	2,324	4,478	4,580	2.0
STANDARD DOSE	223	229	4,070	4,187	18.3
ECP(Pill)	13,012	13,385	1,721,617	1,750,711	130.8

Note: i) Consumption means total distribution of GOB + NGO to users.

ii) Closing balance means total stock (CWH+RWH+Upazila+Field) of GOB + NGO.

Contraceptive Stock Status Report (RWH Summary)
Stock Status at the end of September, 2005

Supplying RWH	Condom	Depo_Provera	Total IUD (380 A + 200 B)		Shukhl	Store	
	Distribution	Store	Distribution	Store	Distribution	Store	
Bogra RWH	369,368	1.7	57,136	1.5	991	1.7	
					554,428	12.0	
Facility Name	R	Distr.	Str.	Fld.	Distr.	Str.	Fld.
Adamdighi	Y	11,610	23	23	40	34	30
Akshpur	Y	3,358	0.4	2.5	1,871	3.2	1.1
Atrai	Y	13,461	2.5	2.5	1,269	2.7	1.1
Badalgachi	Y	7,451	2.1	7.3	844	2.8	1.8
Bogra	Y	99,834	1.8	1.7	2,234	2.9	0.3
Dhamoirhat	Y	10,999	2.5	2.3	8,688	2.0	1.5
Dhunat	Y	13,186	2.8	2.3	1,211	2.5	1.3
Drupachalia	Y	4,933	2.8	3.6	5,008	2.6	0.7
Gabtalai	Y	27,030	2.6	2.5	1,570	3.0	2.1
Ghoraghat	Y	3,415	4.1	4.0	3,447	2.4	2.2
Hakimpur	Y	4,008	3.1	2.4	567	4.0	0.7
Jaipurhat	Y	11,425	2.2	4.0	418	3.2	1.1
Kahaloo	Y	10,794	2.7	3.8	2,080	3.2	1.1
Kalai	Y	4,806	1.8	2.8	1,037	3.4	2.7
Khetlai	Y	3,415	2.4	3.2	711	4.2	0.8
Manda	Y	7,361	4.1	0.9	437	3.3	0.7
Mohadevpur	Y	6,115	3.0	2.0	2,304	3.3	1.6
Nandigram	Y	5,154	4.1	1.0	1,707	2.3	3.6
Nasogon	Y	18,183	2.8	2.1	1,036	3.5	1.0
Niamapur	Y	10,283	2.2	3.5	3,876	2.7	2.1
Panch Bibi	Y	10,975	2.9	1.5	977	2.8	1.9
Patnilola	Y	3,598	1.5	5.7	1,946	2.5	1.4
Porsha	Y	11,305	2.6	1.8	781	2.9	3.0
Raninagar	Y	6,361	3.5	0.7	447	3.5	1.0
Sariakandi	Y	9,228	2.7	2.1	978	2.8	1.6
Shapahar	Y	3,594	2.9	2.6	1,742	3.4	2.0
Sherpur(Bogra)	Y	12,375	2.9	4.2	875	3.1	0.9
Shibganj(Bogra)	Y	19,026	2.5	2.6	3,427	2.5	1.8
Sonatala	Y	16,085	2.4	1.0	3,342	3.2	0.6
					2,295	2.7	0.8
Total:		3,69,368			57,135		
					991		
					5,54,431		

Laurie's test SCMgr Logistic's System
Laurie's test database

Supply Status Report

Report Period: 2nd Quarter, 1999

All Facility Types

Condom -- 52mm

Run Date: 27-Mar-02

Run Time: 2:10 PM

Contraceptives

	Type	Receipts	Issues/ Dispensed	Closing Balance	Current MOS	Average Monthly Consumption
Central Warehouse 100	MCH Directorate	0	82,000	8,000	0.1	87,750
Dispensing To:						
Washington DC Distribution Ce	MCH Directorate	37,500	25,000	57,500	2.8	20,500
Richmond Dist Center	Health Directorate	20,000	9,000	11,000	0.7	14,800
Winchester Distribution Center	Health Directorate	20,000	13,500	6,500	0.3	23,000
Charlottesville District Store	JAFPP Directorate	13,000	5,000	8,000	0.9	9,000
Arlington Test 2	Health Center	10,000	9,000	1,100	0.1	7,450
SDP - Test Arlington	Health Center	2,000	9,000	3,000	0.2	13,000
Total		102,500	70,500	87,100	1.0	87,750

Laurie's test SCMgr Logistic's System
Laurie's test database

Dispensed To User Report
Report Period: 2nd Quarter, 1999

Run Date: 27-Mar-02
Run Time: 2:09 PM

All Facility Types
Condom - 52mm

Contraceptives
Total for Whole Country 80,800

	Type	Dispensed	Percent
Central Warehouse 100	MCH Directorate	18,000	22.28%
Dispensing To:			
Washington DC Distribution Center	MCH Directorate	16,000	19.80%
Charlottesville District Store	JAFPP Directorate	9,000	11.14%
Richmond Dist Center	Health Directorate	14,800	18.32%
Winchester Distribution Center	Health Directorate	23,000	28.47%
Arlington Test 2	Health Center	9,000	11.14%
SDP -Test Arlington	Health Center	9,000	11.14%
Total For Central Warehouse 100		80,800	100.00%

Aggregate Stock Movement - by Level Report Period: 2nd Quarter, 1999 All Facility Types

Run Date: 27-Mar-02
Run Time: 2:10 PM

Contraceptives

Microgynnon -- high dose oral						
Level	-#-	Opening Balance	Receipts	Issues	Adjustments	-% of Total
1	2	0	200	0	0	0.1 12%
2	3	10	3,010	2,005	0	0.3 59%
3	13	1,530	2,000	3,015	0	0.2 30%
	18	1,540	5,210	5,020	0	1,730

Femulen -- low dose oral						
Level	-#-	Opening Balance	Receipts	Issues	Adjustments	-% of Total
1	2	3,000	20,000	14,500	0	0.1 25%
2	3	0	20,000	10,100	0	0.5 29%
3	13	49,000	12,100	45,470	0	0.4 46%
	18	52,000	52,100	70,070	0	34,030

IUD -- 380I						
Level	-#-	Opening Balance	Receipts	Issues	Adjustments	-% of Total
1	2	1,400	0	400	0	40.0 92%
2	1	0	100	100	0	0.0 0%
3	13	10	100	25	0	3.4 8%
	16	1,410	200	525	0	1,085

Condom -- 52mm						
Level	-#-	Opening Balance	Receipts	Issues	Adjustments	-% of Total
1	2	135,000	37,500	107,000	0	0.6 47%
2	3	0	53,000	27,500	0	0.5 18%
3	13	71,100	58,000	80,800	0	0.6 35%
	18	206,100	148,500	215,300	0	139,300

Aggregate Stock Movement - by Level

Report Period: 2nd Quarter, 1999
All Facility Types

Run Date: 27-Mar-02
Run Time: 2:10 PM

Contraceptives

Depoprovera -- 30cc						
Level	-#-	Opening Balance	Receipts	Issues	Adjustments	-% of Total
1	2	3,000	0	1,000	0	2,000 0.0 40%
2	3	0	3,000	0	0	3,000 0.0 60%
3	13	0	0	0	0	0 0.0 0%
	18	3,000	3,000	1,000	0	5,000

VFI -- 1 dose						
Level	-#-	Opening Balance	Receipts	Issues	Adjustments	-% of Total
1	2	5,000	8,000	11,000	0	2,000 0.1 14%
2	2	0	5,000	4,100	0	900 0.1 7%
3	12	10,500	20,700	20,300	0	10,900 0.7 79%
	16	15,500	33,700	35,400	0	13,800

Norplant -- 1 dose						
Level	-#-	Opening Balance	Receipts	Issues	Adjustments	-% of Total
1	2	0	100	20	0	80 2.9 17%
2	3	0	420	185	0	235 8.4 49%
3	12	0	195	29	-3	163 5.8 34%
	17	0	715	234	-3	478

Rubber Gloves -- Pair						
Level	-#-	Opening Balance	Receipts	Issues	Adjustments	-% of Total
3	11	0	0	0	0	0 0.0 0%
	11	0	0	0	0	0

Stocked Out Facilities
Report Period: 2nd Quarter, 1999
All Facility Types

Run Date: 27-Mar-02
Run Time: 2:08 PM

Contraceptives

Supplier: CEN001: Central Warehouse 100

Product: Femulen

Code: **dst001**

Name: **Washington DC Distribution Center**

Contact: Supervisor

Type: MCH Directorate

Phone:

Average Monthly Consumption: **22,500**

TOTAL # of Sites 1

Product: IUD

Code: **DST005**

Name: **Charlottesville District Store**

Contact: Chovitz

Type: JAFPP Directorate

Phone:

Average Monthly Consumption: **25**

TOTAL # of Sites 1

Product: Microgynon

Code: **dst001**

Name: **Washington DC Distribution Center**

Contact: Supervisor

Type: MCH Directorate

Phone:

Average Monthly Consumption: **22**

TOTAL # of Sites 1

Laurie's test SCMgr Logistic's System
Laurie's test database

Stocked Out Facilities
Report Period: 2nd Quarter, 1999
All Facility Types

Run Date: 27-Mar-02
Run Time: 2:08 PM

Contraceptives

Supplier: DST001: Washington DC Distribution Center

Product: Condom

Code: s0003

Name: SDP 3-Bethesda

Contact:

Type: MOH Hospital

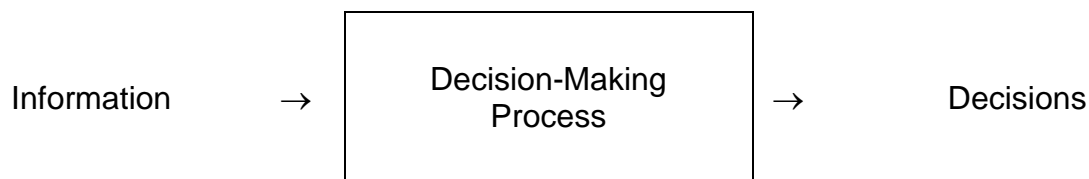
Phone:

Average Monthly Consumption: 5,000

TOTAL # of Sites 1

MANAGEMENT DECISION MAKING

Collection of information should not be a goal in itself, but rather a means to improve the management of the service delivery system by improving the quality of management decisions. At the most fundamental level, the decision-making process can be viewed as a "black box," into which flows information, and from which comes decisions. Schematically:



Although this is a very simplistic view of what managers actually do, it serves to illustrate a number of very important points which are frequently overlooked in information systems development. First, if one's interest is in decisions, one must understand the decision-making process itself. Second, in order to improve decisions, one might attempt either to improve the information flowing into the box, or to improve the process within the box. These are two very different kinds of activities, and in most cases they must be undertaken concurrently in order to have any effect on decisions. Third, it is not possible to say what "better" information really is without understanding both the decisions being made and the decision-making process itself.

This is the most important single principle of information systems development. To design a relevant, useful system, one must first consider what decisions are being made, and second, how they are made. Only with this understanding is it possible to say what information is needed and how to collect it. The most frequent cause of information systems failures is that they do not aim at supporting specific decisions.

SESSION 5 STORAGE AND DISTRIBUTION

Guidelines for the Storage of Essential Medicines Scavenger Hunt

1. Name two data elements that are required on stock records and two that are optional.
2. Which term best describes storage of products at between 8 and 15 degrees Celsius (45 to 59 degrees Fahrenheit)?
3. Identify two techniques for cyclic physical inventory.
4. What is the minimum width for a passageway between shelves and racks? How far away from the wall should shelves be placed?
5. Name 4 types of disposal methods. Which method is ideal? Which method would be appropriate to use in a very resource limited setting?
6. Identify three indicators of quality problems for sterile products.
7. Identify three specific steps that should be taken to guard against pests.

8. Name 3 methods for arranging medicines/products in the storeroom. Name one that is more appropriate for a large facility that manages many products and one that is more appropriate for a small facility that manages a limited number of products.
9. Name three specific reasons for requiring special storage/handling of HIV/AIDS products (ARVs in particular).
10. If using refrigerators for cold storage, what is a measure you can take to protect cold chain items in the event of a power failure?
11. Name two specific steps that should be taken to guard against humidity.
12. What is a sharps container? Where should it be kept?
13. In what situations are pallets most useful? What are 2 types of pallet lifters?

When to Conduct a Visual Inspection

- A. Every time products are received from the manufacturer (usually at the central level)
- B. Each time the warehouse or clinic receives supplies
- C. When conducting a physical inventory dispensing products to a client
- D. When issuing products from one level to another
- E. When investigating complaints
- F. When supplies are about to expire
- G. When supplies show signs of damage
- H. When products have been kept under improper storage conditions

Product-related Problems

- 1. Missing expiration or manufacturing date, when required on the carton or outer box**
- 2. Broken or crumbled tablets**
- 3. Information on boxes or cartons illegible**
- 4. Dirty, torn or otherwise damaged boxes**
- 5. Missing product or empty boxes**
- 6. Missing expiration date on multiple-unit cartons, with expiration date on individual units**
- 7. Contents not identified on multiple-unit cartons**
- 8. Water-damaged cartons**
- 9. Products found outside warehouse or clinic**
- 10. Cartons with holes and/or frayed edges**

GUIDELINES FOR PROPER STORAGE

1. The storage space must be kept clean and cleaned regularly
2. The storage space must be cross-ventilated and installed ceiling and exhaust fans.
3. Ceiling fans must be turned on during daylight hours.
4. Exhaust fans must be turned on at all, times when temperatures exceed 25 degrees Celsius.
5. Thermometer must be displayed on wall and two readings per day must be recorded in a separate register i.e. 9:00 a.m. & 2:30 p.m.
6. Incandescent lighting fixtures (no tube lights) to be positioned at suitable intervals.
7. Store walls must be painted with a lime-based substance annually (Whitewashed)
8. Roofs must not leak; rain/floodwater must be managed by proper drainage arrangements installed externally.
9. The sun must not shine directly on stored commodities.
10. Floor must be raised at least 6 inches above the plinth and must be flat and cemented.
11. The walls and under-ceilings must be disinfected periodically with a mild commonly available household spray.
12. Storerooms must be equipped with pallets, racks, shelves and lockable almirahs.
13. Storerooms must be equipped with functional (up-to date) fire extinguishers.
14. Physical security must be ensured by the presence of designated security guards (at-least three in numbers).
15. Visitors' book is to be maintained for signature and comments of authorized personnel who visit storeroom/ warehouse.
16. Cartons must be stacked on pallets with minimum of 4 inches (9-10cms) of space between floor and bottom of cartons.
17. Carton labels must be visible and right side up.
18. Bin Cards, containing up-to-date information, must be positioned/affixed on stacks, on shelves, (outside) and/or on racks.
19. Space between stacks and walls must be 12 inches (33cms).
20. Stacks must not be higher than 8 feet (2.5meters). If at that height the lower cartons show squashing/buckling/compression, etc. then this rule has to be amended. Stacks must be vertically aligned/straight, and must not lean to left or right.

Guidelines for Proper Storage Continued

21. At least 3 feet, or one-meter space, between stacks must be maintained.
22. Medicines, drugs and contraceptives must not be stored in same room with Insecticides, volatile chemicals and fluids (like alcohol, kerosene, diesel and petrol), Non-usable equipment, machinery, spare parts, expired drugs, obsolete materials, old files, obsolete stationary and other printed materials.
23. FEFO: While issuing commodities First Expiry/First Out methods must be adopted and practiced
24. Store condoms and other latex products away from electric motors and fluorescent lights.
25. Maintain cold storage, including a cold chain, for commodities that require it.
26. Keep narcotics and other controlled substances in a locked place.
27. Store flammable products separately using appropriate safety precautions.

Distribution System

From logistics Manual of Lady Health Workers Program

7.1 INTRODUCTION

Distribution includes the movement of commodities from suppliers/ manufacturers to storage facilities, between storage facilities, from one level of storage to another, and from storage facilities to FLCFs and LHWs. It also refers to the transaction between the provider and the end-user.

7.2 LEVEL 1: the National Programme level.

Nationally procured commodities are directly received from manufacturers/suppliers at the PPIUs. The frequency of supplies at PPIU depends upon supply plans and availability of resources. Contraceptives are received from Central Warehouse and Supplies (CW&S) to the district stores, on a pull basis.

7.3 LEVEL 2: the Provincial Programme level.

[Provincial PIUs to District PIUs] Commodities are supplied on both Pull and Push system depending upon the circumstances using standard requisition forms on quarterly basis.

7.4 LEVEL 3: the District Programme level. [District PIU to FLCFs]

Commodities are supplied on both Pull and Push system depending upon the circumstances using standard requisition forms on monthly or quarterly basis.

7.5 LEVEL 4: FLCF Programme level. [FLCF TO LHWs]

Commodities to the LHWs are replenished on monthly basis from the concerned FLCF.

Distribution plans are prepared at Federal, Provincial and District PIU levels. These plans are based on requisition forms submitted by FLCFs and District PIUs.

7.6 TRANSPORTATION

The current policy is that commercial transportation services are used for the movement of commodities between levels 1, 2 and 3.

*While using commercial transportation services Logistics Managers must consider the volume, weight and **urgency** of the supply.*

There is ambiguity concerning the policy as stated in the Protocol of Programme. The current practice is that the District Coordinators frequently impose the responsibility on the LHWs to use their assigned Programme vehicles to transport Programme commodities to the FLCFs. This is in contradiction to the Protocol of Use of National Programme vehicles.

SESSION 6 ASSESSING STOCK STATUS

ASSESSING STOCK STATUS AT CLINIC LEVEL EXERCISE 1

You have just begun your assignment at your clinic and you want to become very familiar with consumption patterns and your stock situation. Therefore you have decided to determine the stock status for each contraceptive monthly. With the information given on the daily activity registers, inventory control cards, and nurses desk drawer inventory chart (Table A) provided, **determine the months of stock on hand for Microgynon for the months of May 2006 through July 2006.**

Stocks in this clinic are issued to the nurses for distribution to users. The nurses store the contraceptives they are issuing to users in their desk drawers. To determine your stock on hand, you must add the amount of stock in the storeroom to the amount available in the nurses' drawers. This information is found on inventory control cards and in Table A.

Until you have three months data, use as many months' data as you have for each monthly calculation to determine the average monthly stock dispensed to users. For example, on May 31st, 2006, you only have one month's data, so you would use that month's data only. (Use additional data as it becomes available.) **Round your average monthly dispensed to user calculations to the nearest whole number and your months of stock answers to one place after the decimal point.**

Enter your calculations in the appropriate columns below.

Inventory Control Card for Microgynon

Date	Microgynon			
	Stock on Hand	Consumption this month	Average Monthly Consumption	Months of Stock on Hand
May 31, 2006				
June 30, 2006				
July 31, 2006				

INVENTORY CONTROL CARD						
Commodity Number		Description: Microgynon				
Unit: Cycles (100 per box)		Maximum Stock: 5 months		Minimum Stock: 2 months		Location: Sopoka
Date	Transaction Reference	Quantity Received	Quantity Issued	Losses/ Adjustments	Quantity On Hand	Quantity On Order
May 31, 2006		500	100		400	
June 3, 2006			100		300	
July 4, 2006			100		200	

Table A
&
Daily Activity Registers
(DARs)

Table A

	Nurses Desk Drawer Inventory	
	Microgynon	Condoms
May 31, 2006	3 cycles	16 pieces
June 30, 2006	43 cycles	8 pieces
July 31, 2006	71 cycles	108 pieces

Exercise 1
DAILY ACTIVITY REGISTER (FAMILY PLANNING)

Month: May

S.D.P./Clinic

Name Sopoka

S.D.P./Clinic

Number: 10

Year: 2006

Date	Name of Client	Client Number	Client Type		Contraceptives Dispensed at this Visit														Referrals		Glo- ves		Comments/ Remarks		
			New	Revisit	Oral Contraceptives								Injectables		Nor- plant	IUCD's			Con- doms	Foam- ingTabl ets				Sterili- zation	Natural FP
					Micro- gynon	Neo- gynon	Eu- gynon	Micro- lut	Nor- dette	Lo- gynon	Tri- nordial		Depo- provera	Nori- sterat		Copper T	NovaT	Multi- load							
1/5	Sam Kambu	80	x																12						
1/5	Mary Ben	59		X					3																
1/5	Michelle Kifaluka	81	x										1												
1/5	Maureen Jima	47		X	3																				
1/5	Margaret Nashara	82	x										1												
1/5	Simone Duma	83	x		1																		1		
1/5	Melissa Ntube	12		X									1												
1/5	Karen Traore	84	x										1												
1/5	Mary John	66		X	3																				
1/5	Jeanette Busia	46		x					3																
8/5	Abigail Mo	54		x	3																				
8/5	Mukami Riberia	7		x									1												
8/5	Shana Pierce	18		x									1												
8/5	Annie Hawa	85	x										1												
15/5	Thelma Louise	19		x									1												
15/5	Elizabeth Keita	86	x										1												
15/5	Nowai James	68		x	3																				
15/5	Jane Diallo	61		x	3																				
Totals for this page:			7	11	16				6				9						12				1		
Totals for this month:																									

DAILY ACTIVITY REGISTER (FAMILY PLANNING)

Month: May

S.D.P./Clinic

S.D.P./Clinic

Name: Sopoka

Number: 10

Year: 2006

Date	Name of Client	Client Number	Client Type		Contraceptives Dispensed at this Visit																		Referrals		Gloves		Comments/Remarks
			New	Revisit	Oral Contraceptives								Injectables		Nor-plant	IUCD's			Condoms	Foam-ingTablets	Sterili-zation	Natural FP					
					Micro-gynon	Neo-gynon	Eu-gynon	Micro-lut	Nor-dette	Lo-gynon	Tri-nordial		Depo-provera	Nori-sterat		Copper T	NovaT	Multi-load									
15/5	Mariam Thomas	87	x										1														
22/5	Benjamin Peter	14		x															24								
22/5	Rayna Smythe	69		x					3																		
22/5	Fanta Akimba	88	x										1														
22/5	Samba Soko	8		x															24								
22/5	Anne Hangali	89	x										1														
22/5	Ellen Kidyalla	90	x										1														
22/5	Abu Moses	4		x															24								
22/5	Erica Faye	11		x									1														
22/5	Sarah Seku	16		x	3																						
22/5	Fatu Torre	17		x									1														
23/5	Rachel Were	13		x	3																						
23/5	Rose Mosongo	10		x	3																						
23/5	Aminata Amina	1		x	3																						
23/5	Esther Kibet	6		x	3																						
23/5	John Sawyer	67		x															24								
23/5	B.J. Taylor	76		x	3																						
23/5	Yaya Diawa	91	x										1														
Totals for this page:			5	13	18				3				7						96								
Totals for this month:																											

DAILY ACTIVITY REGISTER (FAMILY PLANNING)

Month: May
S.D.P./Clinic

Name: Sopoka

Number: 10

Year: 2006

Date	Name of Client	Client Number	Client Type		Contraceptives Dispensed at this Visit																Referrals		Gloves		Comments/Remarks
			New	Revisit	Oral Contraceptives								Injectables		Nor-plant	IUCD's			Condoms	Foaming Tablets	Sterilization	Natural FP			
					Micro-gynon	Neo-gynon	Eu-gynon	Micro-lut	Nor-dette	Lo-gynon	Tri-nordial		Depo-provera	Nori-sterat		Copper T	NovaT	Multi-load							
23/5	Ben Doe	56	x																24						
23/5	Mary John	66	x		3																				
23/5	Melinda Thomas	20		x									1												
23/5	Andrea Macha	92	x						1														1		
28/5	Andrea Dolo	78		x	3																				
28/5	Lua John	93	x		1																		1		
28/5	Liza Mwiola	94	x										1												
28/5	Edward Doe	95	x																12						
28/5	Karen Torre	74		x	3																				
Totals for this page:			6	3	10				1				2						36				2		
Totals for this month:			17	27	44				10				18						144				3		

DAILY ACTIVITY REGISTER (FAMILY PLANNING)

Month: June

S.D.P./Clinic

Name: Sopoka

Number: 10

Year: 2006

Date	Name of Client	Client Number	Client Type		Contraceptives Dispensed at this Visit													Referrals				Gloves		Comments/Remarks	
			New	Revisit	Oral Contraceptives								Injectables		Nor-plant	IUCD's			Condoms	Foaming Tablets	Sterilization				Natural FP
					Micro-gynon	Neo-gynon	Eu-gynon	Micro-lut	Nor-dette	Lo-gynon	Tri-nordial		Depo-provera	Nori-sterat		Copper T	NovaT	Multi-load							
3/6	Peter Mushi	71		x															24						
3/6	Catherine Ndeti	36		x									1												
3/6	Alma Tankara	96	x						1														1		
3/6	Elizabeth Silas	32		x									1												
8/6	Simone Duma	83		x	3																				
8/6	Lua John	93		x	3																				
8/6	Katherine Thube	21		x									1												
8/6	Abdulai Kassam	97	x						1														1		
8/6	Stacey James	38		x									1												
15/6	Angela Couililaly	98	x										1												
15/6	Heather Rutazza	99	x										1												
15/6	Edward Doe	95		x															24						
15/6	Sam Kamu	80		x															24						
15/6	Helen Embu	31		x									1												
16/6	May Seku	100	x		3																		1		
16/6	Joyce Kalimi	9		x									1												
16/6	Richard Kema	101	x																12						
20/6	Fatu Ayallo	27		x	6																				
Totals for this page:			6	12	15				2				8						84				3		
Totals for this month:																									

DAILY ACTIVITY REGISTER (FAMILY PLANNING)

S.D.P./Clinic

Month: June

Name: Sopoka Number 10

S.D.P./Clinic

Year: 2006

Date	Name of Client	Client Number	Client Type		Contraceptives Dispensed at this Visit																Referrals		Gloves		Comments/Remarks
			New	Revisit	Oral Contraceptives								Injectables		Nor-plant	IUCD's			Condoms	Foam-ing Tablets	Sterili-zation	Natural FP			
					Micro-gynon	Neo-gynon	Eu-gynon	Micro-lut	Nor-dette	Lo-gynon	Tri-nordial		Depo-provera	Nori-sterat		Copper T	NovaT	Multi-load							
20/6	Anna Diabate	102	x										1												
20/6	James John	103	x															12							
20/6	Mary Pascewe	34		x	3																				
22/6	Elizabeth Mwiloha	104	x										1												
22/6	Miriam Ayallo	105	x		3																	1			
22/6	Anna Kiamba	28		x									1												
22/6	Shana Nduati	37		x									1												
22/6	Rachel Wapilila	106	x						1													1			
22/6	Rose Muma	107	x		3																	1			
23/6	Sarah Doto	41		x	3																				
23/6	Jane Soko	22		x	3																				
23/6	Mukami Swai	108	x										1												
23/6	Sandra Mo	109	x		3																	1			
23/6	Patricia Bimat	30		x									1												
23/6	Fatima Doka	39		x	6																				
23/6	Margaret Sanya	110	x										1												
23/6	Linda Kessy	111	x										1												
23/6	Karen Lema	112	x										1												
Totals for this page:			11	7	24				1				9						12				4		
Totals for this month:																									

DAILY ACTIVITY REGISTER (FAMILY PLANNING)

Month: June

S.D.P./Clinic

S.D.P./Clinic

Name: Sopoka Number: 10

Year: 2006

Client: Suzanne Kimathi Client Number: 113

Date	Name of Client	Client Number	Client Type		Contraceptives Dispensed at this Visit																	Referrals		Gloves	Year	Comments/Remarks
			New	Revisit	Oral Contraceptives								Injectables		Nor-plant	IUCD's			Condoms	Foaming Tablets	Sterilization	Natural FP				
					Micro-gynon	Neo-gynon	Eu-gynon	Micro-lut	Nor-dette	Lo-gynon	Tri-nordial		Depo-provera	Nori-sterat		Copper T	NovaT	Multi-load								
23/6	Peter Cane	113	x																12							
23/6	Helen Moses	40		x	6																					
23/6	Kathryn Mwamba	114	x						1														1			
29/6	Ellen Wabera	9		x					3																	
29/6	Andra Soko	115	x		3																		1			
29/6	Suzanne Kimathi	25		x									1													
29/6	Ann James	116	x		3																		1			
29/6	Massara Thompson	117	x										1													
29/6	Louise Njoki	15		x					3																	
30/6	Anne Njeru	26		x									1													
30/6	Helen Kamu	118	x		3																		1			
30/6	Lillian Dibibi	119	x						1														1			
30/6	Jane Assefa	120	x										1													
30/6	Nancy Duna	121	x		3																		1			
30/6	Helen Peter	3		x					3																	
30/6	Abigail Taylor	122	x		3																		1			
30/6	Faith Slater	123	x										1													
30/6	Andrea Moses	5		x					3																	
Totals for this page:			11	7	21				14				5						12				7			
Totals for this month:																										

DAILY ACTIVITY REGISTER (FAMILY PLANNING)

Month: June

S.D.P./Clinic

S.D.P./Clinic

Name: Sopoka Number: 10

Year: 2006

Date	Name of Client	Client Number	Client Type		Contraceptives Dispensed at this Visit																Referrals		Gloves		Comments/Remarks
			New	Revisit	Oral Contraceptives								Injectables		Nor-plant	IUCD's			Condoms	Foaming Tablets	Sterilization	Natural FP			
					Micro-gynon	Neo-gynon	Eu-gynon	Micro-lut	Nor-dette	Lo-gynon	Tri-nordial		Depo-provera	Nori-sterat		Copper T	NovaT	Multi-load							
30/6	Anna Ayalla	2		x					3																
Totals for this page:				1					3																
Totals for this month:			28	27	60				20				22						108				14		

DAILY ACTIVITY REGISTER (FAMILY PLANNING)

Month: July

S.D.P./Clinic

S.D.P./Clinic

Name: Sopoka Number: 10

Year: 2006

Form: Supra Number: 10

Date	Name of Client	Client Number	Client Type		Contraceptives Dispensed at this Visit																Referrals		Gloves	Year	Comments/Remarks
			New	Revisit	Oral Contraceptives								Injectables		Nor-plant	IUCD's			Condoms	Foam-ingTabl-ets	Sterili-zation	Natural FP			
					Micro-gynon	Neo-gynon	Eu-gynon	Micro-lut	Nor-dette	Lo-gynon	Tri-nordial		Depo-provera	Nori-sterat		Copper T	NovaT	Multi-load							
2/7	Jane Doe	124	x		1																		1		
2/7	Mary John	125	x		1																		1		
2/7	Alexis Kimana	57		x									1												
2/7	Josephine Kipendi	126	x										1												
2/7	Carla Homa	51		x									1												
5/7	John Peter	127	x																8						
5/7	Lillian Dibibi	119	x						3																
5/7	Rachel Kyara	128	x										1												
5/7	Fatima Kai	129	x		1																		1		
12/7	Mary Ben	59	x						3																
12/7	Sarah John	130	x		3																		1		
12/7	Giselle Ayalla	48		x									1												
12/7	May Seku	100		x	3																				
12/7	Miriam Ayalla	105		x	3																				
12/7	Benjamin Peter	14		x															12						
12/7	Alma Tankara	96		x					3																
12/7	Angela Rayburn	44		x									1												
12/7	Rayna Smythe	69		x					3																
Totals for this page:			9	9	12					12				6					20				4		
Totals for this month:																									

DAILY ACTIVITY REGISTER (FAMILY PLANNING)

Month: July
S.D.P./Clinic

S.D.P./Clinic

Name: Sopoka

Number: 10

Year: 2006

Date	Name of Client	Client Number	Client Type		Contraceptives Dispensed at this Visit																Referrals		Gloves		Comments/Remarks
			New	Revisit	Oral Contraceptives								Injectables		Nor-plant	IUCD's			Condoms	Foaming Tablets	Sterilization	Natural FP			
					Micro-gynon	Neo-gynon	Eu-gynon	Micro-lut	Nor-dette	Lo-gynon	Tri-nordial		Depo-provera	Nori-sterat		Copper T	NovaT	Multi-load							
12/7	Rose Muna	107		x	3																				
19/7	Mariam Senegama	131	x										1												
19/7	Samba Soko	8		x															12						
19/7	Christine Magami	132	x										1												
19/7	Josephine Baringo	55		x									1												
19/7	Abu Moses	4		x															12						
19/7	Richard Kena	101		x															12						
19/7	Rima Mboka	133	x										1												
19/7	Rachel Wapilila	106		x					3																
19/7	Nellie Miningi	49		x									1												
21/7	Sandra Mo	109		x	3																				
21/7	Carla Jones	53		x									1												
21/7	Andra Soko	115		x	3																				
21/7	Kathryn Mwamba	114		x					3																
21/7	Ann James	134	x		3																		1		
21/7	Heather Baruda	58		x									1												
21/7	Jane Diallo	61		x	3																				
24/7	James John	103		x															12						
Totals for this page:			4	14	15				6				7						48				1		
Totals for this month:																									

DAILY ACTIVITY REGISTER (FAMILY PLANNING)

S.D.P./Clinic

Month: July

S.D.P./Clinic

Name: Sopoka

Number 10

Year 2006

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0
6

Date	Name of Client	Client Number	Client Type		Contraceptives Dispensed at this Visit																Referrals		Gloves	Comments/Remarks	
			New	Revisit	Oral Contraceptives								Injectables		Nor-plant	IUCD's			Condoms	Foaming Tablets	Sterilization	Natural FP			
					Micro-gynon	Neo-gynon	Eu-gynon	Micro-lut	Nor-dette	Lo-gynon	Tri-nordial		Depo-provera	Nori-sterat		Copper T	NovaT	Multi-load							
24/7	Rima Alland	63		x									1												
24/7	Nancy Duna	121		x	3																				
24/7	Lillian Angala	70		x									1												
24/7	Nowai James	68		x	3																				
26/7	Elizabeth Temba	135	x										1												

26/7	Abigail Taylor	122		x	3																			
26/7	Peter Cane	113		x													8							
26/7	Massara Kigadye	136	x									1												
26/7	Karen Torre	74		x	3																			
26/7	Abigail Mo	54		x	3																			
26/7	Joan Matuba	62		x					3															
27/7	Mary John	66		x	3																			
27/7	Rena Manson	50		x								1												
27/7	Maureen Jima	47		x	3																			
27/7	Jeanette Busia	46		x					3															
27/7	Amana Upangile	137	x									1												
27/7	Sarah Seku	16		x	3																			
27/7	Rachel Were	13		x	3																			
Totals for this page:			3	15	27				6			6					8							
Totals for this month:																								

DAILY ACTIVITY REGISTER (FAMILY PLANNING)

Month: July
S.D.P./Clinic

S.D.P./Clinic

Name: Sopoka Number: 10 Year: 2006

Date	Name of Client	Client Number	Client Type		Contraceptives Dispensed at this Visit																Referrals		Gloves		Comments/ Remarks
			New	Revisit	Oral Contraceptives								Injectables		Nor-plant	IUCD's			Condoms	Foam-ingTabl ets	Sterili- zation	Natural FP			
					Micro-gynon	Neo-gynon	Eu-gynon	Micro-lut	Nor-dette	Lo-gynon	Tri-nordial		Depo-provera	Nori-sterat		Copper T	NovaT	Multi-load							
27/7	Giselle Angala	138	x										1												
27/7	Alise Mwilolo	139	x										1												
27/7	Lillian Cousins	65		x									1												
27/7	Rose Mosongo	10		x	3																				
27/7	Aminata Amina	1		x	3																				

27/7	Esther Kibet	6		x	3																			
27/7	B.J. Taylor	76		x	3																			
27/7	Andrea Dolo	78		x				3																
27/7	May Matunga	140	x									1												
27/7	Amy Thube	75		x								1												
27/7	Mary John	77		x	3																			
27/7	Katherine Mworio	141	x									1												
27/7	Margaret Kahari	142	x		3																	1		
27/7	Ben Doe	56		x														12						
27/7	Peter Siku	143	x															12						
Totals for this page:			6	9	18			3				6						24				1		
Totals for this month:			22	47	72			27				25						100				6		

Exercise 2

Assessing Stock Status at the District Level

SITUATION:

You are Janet Mijoni, District Pharmacist for Mzimba District. There are three health centres in your district: Erukweni, Gowa and Karonga.

It is March 6, 2007 and you must calculate the stock status of doxycycline for your health centres, as well as the district, as of February 28, 2007. Use a 3 month average, as appropriate.

ATTACHED YOU WILL FIND:

- Eighteen (18) completed *Health Centre Monthly Reports* for the months of September 2006, October 2006, November 2006, December 2006, January 2007 and February 2007
- District pharmacy inventory control cards for doxycycline and erythromycin

INSTRUCTIONS:

Enter your calculations in the appropriate columns below:

DOXYCYCLINE

Date	<i>Erukweni</i>			
	Stock on Hand	Consumption in this month		
Dec. 31, 2006				
Jan. 31, 2007			AMC for Feb. 28	MOS for Feb. 28
Feb. 28, 2007				

Doxycycline

Date	<i>Gowa</i>			
	Stock on Hand	Consumption this month		
Dec. 31, 2006				
Jan. 31, 2007			AMC for Feb. 28	MOS for Feb. 28
Feb. 28, 2007				

Date	<i>Karonga</i>			
	Stock on Hand	Consumption this month		
Dec. 31, 2006				
Jan. 31, 2007			AMC for Feb. 28	MOS for Feb. 28
Feb. 28, 2007				

Date	<i>Mzimba District</i>				
	Stock on Hand (District pharmacy)	Stock on Hand (Clinics)	Consumption this month		
Dec. 31, 2006				AMC for Feb. 28, 2007	
Jan. 31, 2007				MOS for Feb. 28, 2007 (District Only)	MOS for Feb. 28, 2007 (District + Clinic)
Feb. 28, 2007					

EXERCISE 2 CONTINUED
MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Enukweni

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other:

Report for: Month November Year 2006

Product	Beginning Balance	Received This Month	Dispensed/ Issued	Losses/ Adjustments	Ending Balance	Quantity Needed
Doxycycline	230	100	110		220	
Erythromycin	265	90	130		225	

Submitted: John Mponga

Explanation of losses: _____

Date: December 2, 2006

MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Enukweni

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other:

Report for: Month December Year 2006

Product	Beginning Balance	Received This Month	Dispensed/ Issued	Losses/ Adjustments	Ending Balance	Quantity Needed
Doxycycline	220	100	115		205	
Erythromycin	225	140	125		240	

Submitted: John Mponga

Explanation of losses: _____

Date: January 3, 2007

MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Enukweni

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other: ☐

Report for: Month January Year 2007

Product	Beginning Balance	Received This Month	Dispense d/ Issued	Losses/ Adjust-ments	Ending Balance	Quantity Needed
Doxycycline	205	125	105		225	
Erythromycin	240	130	120		250	

Submitted: John Mponga

Explanation of losses: _____

Date: February 4, 2007

MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Enukweni

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other: ☐

Report for: Month February Year 2007

Product	Beginning Balance	Received This Month	Dispense d/ Issued	Losses/ Adjust-ments	Ending Balance	Quantity Needed
Doxycycline	225	100	110		215	
Erythromycin	250	120	125		245	

Submitted: John Mponga

Explanation of losses: _____

Date: March 2, 2007

MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Gowa

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other:

Report for: Month November Year 2006

Product	Beginning Balance	Received This Month	Dispense d/ Issued	Losses/ Adjust-ments	Ending Balance	Quantity Needed
Doxycycline	237	150	155		232	
Erythromycin	215	130	115		230	

Submitted: Mary Phiri Explanation of losses: _____
Date: December 2, 2006 _____

MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Gowa

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other:

Report for: Month December Year 2006

Product	Beginning Balance	Received This Month	Dispense d/ Issued	Losses/ Adjust-ments	Ending Balance	Quantity Needed
Doxycycline	232	160	150		242	
Erythromycin	230	100	120		210	

Submitted: Mary Phiri Explanation of losses: _____
Date: January 3, 2007 _____

MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Gowa

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other:

Report for: Month January Year 2007

Product	Beginning Balance	Received This Month	Dispense d/ Issued	Losses/ Adjust-ments	Ending Balance	Quantity Needed
Doxycycline	242	150	147		245	
Erythromycin	210	140	115		235	

Submitted: Mary Phiri Explanation of losses: _____
Date: February 4, 2007 _____

MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Gowa

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other:

Report for: Month February Year 2007

Product	Beginning Balance	Received This Month	Dispense d/ Issued	Losses/ Adjust-ments	Ending Balance	Quantity Needed
Doxycycline	245	170	144		271	
Erythromycin	235	100	110		225	

Submitted: Mary Phiri Explanation of losses: _____
Date: March 2, 2007 _____

MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Karonga

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other:

Report for: Month November Year 2006

Product	Beginning Balance	Received This Month	Dispense d/ Issued	Losses/ Adjust-ments	Ending Balance	Quantity Needed
Doxycycline	125	50	90		85	
Erythromycin	150	100	85		165	

Submitted: Doris Banda Explanation of losses: _____
Date: December 2, 2006 _____

MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Karonga

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other:

Report for: Month December Year 2006

Product	Beginning Balance	Received This Month	Dispense d/ Issued	Losses/ Adjust-ments	Ending Balance	Quantity Needed
Doxycycline	85	170	80		175	
Erythromycin	165	100	90		175	

Submitted: Doris Banda Explanation of losses: _____
Date: January 3, 2007 _____

MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Karonga

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other:

Report for: Month January Year 2007

Product	Beginning Balance	Received This Month	Dispense d/ Issued	Losses/ Adjust-ments	Ending Balance	Quantity Needed
Doxycycline	175	160	85		250	
Erythromycin	175	100	110		165	

Submitted: Doris Banda Explanation of losses: _____
Date: February 4, 2007 _____

MONTHLY REPORT & REQUEST FORM

District: Mzimba Facility: Karonga

Facility type: Depot: ☐ District Store: ☐ SDP/Clinic: ☐ Other:

Report for: Month February Year 2007

Product	Beginning Balance	Received This Month	Dispense d/ Issued	Losses/ Adjust-ments	Ending Balance	Quantity Needed
Doxycycline	250	0	90		160	
Erythromycin	165	120	115		170	

Submitted: Doris Banda Explanation of losses: _____
Date: March 2, 2007 _____

INVENTORY CONTROL CARD						
Commodity Number:			Description: Doxycycline			
Unit: 100mg tablets		Maximum Stock: 6 months		Minimum Stock: 3 months		Location: Mzimba
Date	Transaction Reference	Quantity Received	Quantity Issued	Losses/ Adjustments	Quantity on Hand	Quantity on Order
10 Nov 2006	Enukweni Clinic		100		1020	
11 Nov 2006	Gowa Clinic		150		870	
11 Nov 2006	Karonga Clinic		50		820	
28 Nov 2006	Regional Store	1200			2020	
30 Nov 2006	Physical Inventory				2020	
9 Dec. 2006	Enukweni Clinic		100		1920	
9 Dec 2006	Gowa Clinic		160		1760	
9 Dec 2006	Karonga Clinic		170		1590	
31 Dec 2006	Physical Inventory				1590	
12 Jan. 2007	Enukweni Clinic		125		1465	
12 Jan. 2007	Gowa Clinic		150		1315	
13 Jan. 2007	Karonga Clinic		160		1155	
31 Jan. 2007	Physical Inventory				1155	
8 Feb. 2007	Enukweni Clinic		100		1055	
9 Feb. 2007	Gowa Clinic		170		885	
23 Feb. 2007	Regional Store	1200			2085	
28 Feb. 2007	Physical Inventory				2085	

INVENTORY CONTROL CARD						
Commodity Number:			Description: Erythromycin			
Unit: 250mg tablets, 1000 tablets per tin		Maximum Stock: 6 months		Minimum Stock: 3 months		Location: Mzimba
Date	Transaction Reference	Quantity Received	Quantity Issued	Losses/ Adjustments	Quantity on Hand	Quantity on Order
10 Nov. 2006	Enukweni Clinic		90		1050	
11 Nov. 2006	Gowa Clinic		130		920	
11 Nov. 2006	Karonga Clinic		100		820	
28 Nov. 2006	Regional Store	1000			1820	
30 Nov. 2006	Physical Inventory				1820	
9 Dec. 2006	Enukweni Clinic		140		1680	
9 Dec. 2006	Gowa Clinic		100		1580	
9 Dec. 2006	Karonga Clinic		100		1480	
31 Dec. 2006	Physical Inventory				1480	
12 Jan. 2007	Enukweni Clinic		130		1350	
12 Jan. 2007	Gowa Clinic		140		1210	
13 Jan. 2007	Karonga Clinic		100		1110	
31 Jan. 2007	Physical Inventory				1110	
8 Feb. 2007	Enukweni Clinic		120		990	
9 Feb. 2007	Gowa Clinic		100		890	
9 Feb. 2007	Karonga		120		770	
23 Feb. 2007	Regional Store	1000			1770	
28 Feb. 2007	Physical Inventory				1770	

HOMEWORK EXERCISE 1
ASSESSING STOCK STATUS

Instructions:

Just as you did for Exercise 1, with the information given on the daily activity registers, inventory control cards, and nurses desk drawer inventory chart (Table A) provided, **determine the months of stock on hand for condoms for the months of May 2006 through July 2006.**

Enter your calculations in the appropriate columns below.

Date	Condoms			
	Stock on Hand	Consumption this month	Average Monthly Consumption	Months of Stock on Hand
May 31, 2006				
June 30, 2006				
July 31, 2006				

INVENTORY CONTROL CARD						
Commodity Number		Condoms Description				
100 pieces per box	12 months		7 months		Sopoka	
Unit	Maximum Stock		Minimum Stock		Location	
Date	Transaction Reference	Quantity Received	Quantity Issued	Losses/ Adjustments	Quantity On Hand	Quantity On Order
January 26, 2006		3000			3000	
February 1, 2006			100		2900	
March 28, 2006			100		2800	
April 8, 2006			100		2700	
May 15, 2006			100		2600	
June 15, 2006			100		2500	
July 5, 2006			100		2400	
July.19, 2006			100		2300	

HOMEWORK EXERCISE 2

ASSESSING STOCK STATUS

Instructions:

Just as you did for Exercise 2 in class,

- Calculate the stock status of your health centres and district for erythromycin, using the 18 completed *Health Centre Monthly Reports* for the months of September, October, November, December, January, and February and the District pharmacy inventory control cards for doxycycline and erythromycin.

SITUATION:

You are Janet Mijoni, District Pharmacist for Mzimba District. There are three health centres in your district: Erukweni, Gowa and Karonga.

It is March 6, 2007 and you must calculate the stock status of erythromycin for your health centres, as well as the district, as of February 28, 2007. Use a 3 month average, as appropriate.

ERYTHROMYCIN

Date	<i>Erukweni</i>			
	Stock on Hand	Consumption this month		
Dec. 31, 2006				
Jan. 31, 2007			AMC for Feb. 28:	MOS for Feb. 28:
Feb 28, 2007				

Date	Gowa	
	Stock on Hand	Consumption this month
Dec. 31, 2006		
Jan. 31, 2007		
Feb 28, 2007		

AMC for Feb. 28:	MOS for Feb. 28:

Date	Karonga	
	Stock on Hand	Consumption this month
Dec. 31, 2006		
Jan. 31, 2007		
Feb 28, 2007		

AMC for Feb. 28:	MOS for Feb. 28:

Date	Mzimba District				
	Stock on Hand (District pharmacy)	Stock on Hand (Clinics)	Consumption this month		
Dec. 31, 2006				AMC for Feb. 28:	
Jan. 31, 2007				MOS for Feb. 28: (District Only)	MOS for Feb. 28: (District + Clinic)
Feb 28, 2007					

SESSION 7 MAX MIN INVENTORY CONTROL SYSTEMS

FORCED ORDERING MAXIMUM-MINIMUM INVENTORY CONTROL

EXERCISE 1

With the data given below, calculate the quantity of Brand X condoms to order if the maximum stock level for Brand X is 5 months and an emergency order point of 1 month. One case of 3000 condoms was ordered and has not yet been received. Use an average of the last 3 months data for your calculations.

BRAND X CONDOMS

Dispensed to Users

September	11	2508
October	11	3000
November	11	2778
December	11	2178
January	12	2552
February	12	2240
March	12	2846
April	12	2530
May	12	2478
June	12	2612
July	12	2108
August	12	2868
September	12	2424

BALANCE OF BRAND X ON HAND

October 1, 2012 is 2335 pieces.

(Note there are no documents for Sessions 8 or 9)

SESSION 10 ANALYZING LMIS

Exercise: Analysis of an Inventory Control Card

Inventory Control Cards (ICC) can be a valuable source of information on how well a supply system is functioning, and if program policies are being followed. By reviewing ICCs one can quickly determine, for example, if commodities are being shipped or received in specified lot sizes, and the frequency of shipments. Both of these are measures of efficiency.

In this exercise you will **analyze** a hypothetical Inventory Control Card for **Oral Rehydration Salt Packets** which is packed 100 in a box, with 10 boxes of 100 in each case. This supply is maintained in a new district warehouse. As the logistics supervisor of this program, you are eager to identify and resolve problems quickly, before they have a chance to affect the performance of the program.

In completing this exercise, assume that the ten clinics re-supplied by the district warehouse are to be re-supplied every month, and that program policy requires that warehouses take a physical inventory the last working day of each month.

Circle the problems -- if any-- you find while analyzing the Inventory Control Card, and be sure you can explain what problems you believe exists. You should also be prepared to discuss whether these problems could have a major or minor impact on the program, and make recommendations on what should be done to solve them.

DISTRICT LEVEL INVENTORY CONTROL CARD

Product: Oral Rehydration Salt


Maximum Stock Level: 6 MOS

Package Size: 100 packets per box/10 boxes per case

Minimum Stock Level: 3 MOS

Issuing Unit: Packet

Emergency Order Point: 1 MOS

Date	Reference number	Received from / Issued to	Quantity		Losses / Adjust	Balance	Initials	Comments
			Receipt	Issued				
29/12/12		Physical Inventory			-20	9,280	RG	
4/1/13	1616	Clinic D		300		8980	RG	
7/1/13	1390	Clinic E		200		8,780	MK	
7/1/13	1525	Clinic A		400		8,380	MK	
8/1/13	1662	Clinic C		500		7980	RG	
14/1/13	0125	To KP District Warehouse		1,200		6780		Emergency supply to KP District
17/1/13	1330	Clinic B		100		6680	MK	
18/1/13		Clinic		200		6450	MK	
21/1/13	0216	Clinic F	300			6150		Overstock product returned to avoid expiration
22/1/13	1492	Clinic C		100		6050	RG	
22/1/13					50	6000	RG	Visual inspection - water damage
11/1/13		Clinic I		100		5900	MK	
22/1/13	1443	Clinic D		150		5750	RG	
23/1/13	1515	Clinic H		200		5550	MK	
25/1/13	1559	Clinic A		300		5350	MK	
28/1/13	1626	Clinic D				5050	RG	
28/1/13	1689	Clinic J		200		4750	RG	
29/1/13	1474	Clinic E		100		4650	RG	
31/1/13		Physical Inventory			-300	4450	MK	
1/2/13	0259	Central Warehouse	5,000			9450	MK	

SESSION 11 ASSESSING LOGISTICS SYSTEMS

CASE STUDY

- Anyland is divided into 7 administrative zones, 20 regions and 120 districts. Health services are provided by health centers, dispensaries, and district hospitals under district authority and through regional hospitals.
- At the central level, the National AIDS Control Program (NACP) coordinates HIV/AIDS prevention activities, forecasts HIV/AIDS commodity requirements, and coordinates donations and/or procurement of these commodities.

Currently NACP stores and distributes condoms, HIV/AIDS test kits and STI drugs within its administrative offices. Condoms and STI drugs are distributed to the Regional AIDS Control Coordinators (RACCs) who are responsible for distributing them to the District AIDS Control Coordinators (DACCs). DACCs provide condoms for AIDS prevention to service delivery points, guesthouses, bars, military units and other distribution points. STI drugs are supplied by the DACCs to the health centres. NACP has one large truck that is used to transport condoms and STI drugs to the regions.

NACP distributes HIV/AIDS test kits to the RACCs, who then distribute them to the Regional and District Lab Technicians for use in the hospitals for blood safety and voluntary counselling and testing. Since the test kits require cold storage, they are flown from the capital city to the regional capitals.

- The Central Medical Stores (CMS), a semi-autonomous agency of the Ministry of Health, is responsible for the procurement, storage and distribution of essential drugs and medical supplies for Anyland. CMS has a central warehouse and 7 zonal offices and warehouses that stock all the products on the Essential Drugs List. CMS is managed much like a private company that provides services to the Ministry of Health.

CMS distributes essential drug kits and family planning commodities, including condoms, to the districts every two months. These products are then distributed to service delivery points by the districts monthly using one of two vehicles assigned to each district.

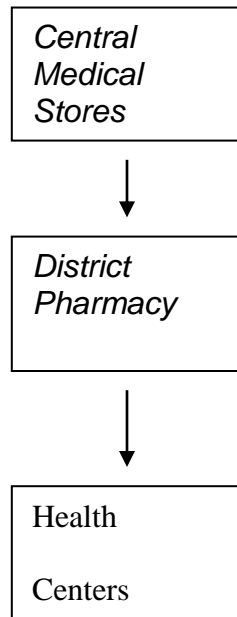
District and regional hospitals procure and pick up their supplies from CMS monthly.

Diagrams of the supply chains follow.

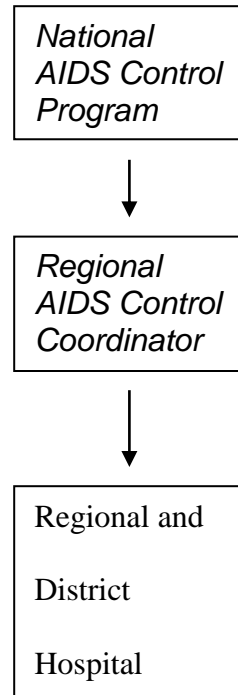
MINISTRY OF HEALTH, REPUBLIC OF ANYLAND

Selected Health Commodity Supply Chains

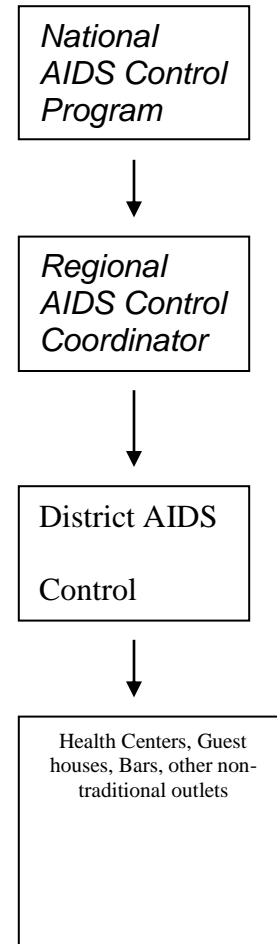
**ESSENTIAL DRUGS
AND CONTRACEPTIVES**



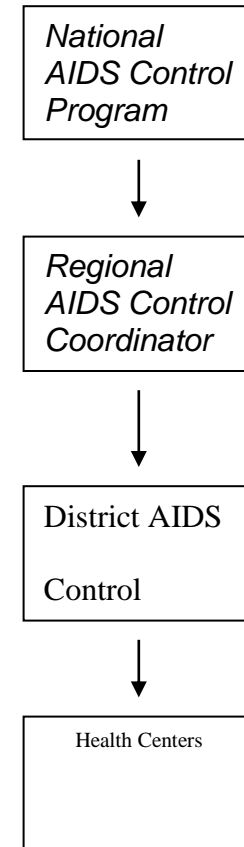
HIV TEST KITS



HIV/AIDS CONDOMS



STI DRUGS



INFORMATION FROM FIELD VISITS:

To assess the logistics system you make field visits to a health center and the associated district, regional and zonal facilities. During field visits you discover the following.

Kanoda Health Center

While visiting the Kanoda Health Center, you spoke with both the Medical Assistant who is in charge and the MCH Aide who handles family planning and reproductive health activities. The Medical Assistant reported that he receives the essential drug kit monthly from the district. The District Transport Officer delivers it during the first week in the month. There is plenty of storage space in the health center and the records appear to be up to date and accurate. A member of the DHMT collects information on drugs used when they come for supervision. This happens about once every 2 months. From time to time, a member of the DHMT will bring supplementary drugs to augment what the health center receives in the kit. While the Medical Assistant never complains, often the drugs are not those most needed in the health center.

While this health center does provide STI treatment services, it has not received STI drugs for the last two months. Usually the District AIDS Control Coordinator (DACC) sends them in the same vehicle with the essential drug kit. The medical assistant asked the DACC about the drugs last time he went to the district office. The DACC said that he was not receiving enough drugs from the Regional AIDS Control Coordinator and therefore was only supplying them to the clinic in the district hospital. The health center does not provide HIV/AIDS testing, but refers clients to the district hospital.

The MCH Aide reported that she goes to the district at the beginning of each month and brings the Report and Request for Contraceptives, the Daily Activity Register and the Stock Ledger for contraceptives with her. She and the District Family Planning Coordinator calculate the quantity of contraceptives the health center needs and these are issued to the MCH Aide. The MCH Aide said that she often is not able to take the whole supply of contraceptives back to the health center with her because she hires a bike to bring her to the district and can not carry all the contraceptives with her. This is particularly a problem with the condoms. She leaves what she can not take to be brought by the next vehicle coming to the health center. Sometimes she makes a second trip to the district to pick them up in the middle of the month. The MCH Aide said that sometimes she does not have the money to hire the bike, and must ask for funds from the village chief. While the MCH Aide does not supply many condoms through the clinic, she does provide them to community-based distributors and local bars and guesthouses when requested.

Magu District

At the District Health Office, you had the opportunity to interview the District Family Planning Coordinator, the District AIDS Control Coordinator, and District Hospital Pharmacist.

The District Family Planning Coordinator reported that she receives the contraceptives she orders every two months from CMS. CMS delivers the contraceptives to her office. She has no problem

with storage of the contraceptives. She stores them in her office and has plenty of space. After taking physical inventory you determine that her records are up to date and that she has about 2 months of supply on hand. While the District Transport Officer could schedule delivery of the contraceptives to the health centers, the Family Planning Coordinator prefers to have the MCH Aides come to the district so she can check their records before issuing the contraceptives.

The District AIDS Control Coordinator (DACC) is responsible for supplying STI drugs to the health centers and the District Hospital, HIV/AIDS condoms to bars, guesthouses, military units and other outlets, and HIV/AIDS test kits to the District Hospital which does voluntary counseling and testing (VCT) and blood safety. The DACC is also responsible for HIV/AIDS community education campaigns and distributes education materials.

Each month the DACC collects information on the number of each STI syndrome treated in the health centers and hospital and aggregates that information into a worksheet. Every quarter the DACC prepares a report with this information and takes it to the RACC and receives STI drugs. Last quarter he received only about half of what he needed when he went to the region to collect the drugs. The RACC told the DACC that there were insufficient quantities of drugs at NACP and that was why the DACC couldn't get more.

The DACC has not had any HIV/AIDS condoms for 6 months and has had to borrow condoms from the District Family Planning Coordinator to supply his customers. The DACC said that he has stopped reporting to the RACC on condoms distributed since they were not HIV/AIDS condoms and he knows that the RACC does not have any condoms to supply him.

The DACC supplies HIV/AIDS test kits to the District Hospital Laboratory Technician. The Lab Tech lets the DACC know when he has only 20 tests left and then the DACC goes to the region to pick up a kit for the hospital. Because the supply of test kits to the RACC is irregular, several times the DACC has not been able to get them from the RACC, but has been able to "borrow" them from the referral hospital.

The District Hospital Pharmacist goes to the CMS Zonal Warehouse once a month to procure the drugs needed in the hospital, and if funds allow, supplementary drugs that can be distributed to the health centers. Generally CMS has everything she wants, but because the hospital vehicle can not hold all the supplies, she makes two trips to pick them up. The Pharmacist estimates the type and quantity of supplementary drugs based on her knowledge of the district.

Mutata Region

After making a courtesy call to the Regional Medical Officer, you met with the Regional AIDS Control Coordinator (RACC). You also visited the CMS Zonal Office.

The RACC tells you that he has not received HIV/AIDS condoms from NACP for more than 6 months because the one truck at NACP has been out of service. He has been able to get STI drugs intermittently. A few months back he was sent a shipment of STI drugs by train. Those are the drugs he has been supplying to the districts. Recently he has advised some of the DACCs to purchase STI drugs from CMS as they have a reliable supply. The RACC receives HIV/AIDS test

kits about 6 times a year, but on no set schedule. NACP advises him as to when they have been received in the capital and when they will be sent to the region. They are flown to the region in cold boxes and the RACC picks them up and stores them in the refrigerator in his storeroom. He believes the supply of test kits is irregular because they are received from multiple donors.

The General Manager of the CMS Zonal Warehouse was quite proud to show you his operation. He keeps the facility well stocked with over 1000 items. There is more than sufficient storage capacity and five trucks for deliveries. The staff is well trained and organized into functional areas such as receiving, storing, picking and shipping. The items in stock are received from CMS Central. Essential drug kits are prepackaged outside the country. Additional kits are packed in CMS Central. CMS Zonal receives the kits already marked for delivery to the districts. Contraceptives are shipped in bulk to CMS Zonal from CMS Central and are packaged for each district at the zonal facility. Bulk drugs are also received from CMS Central and available for purchase by district and regional hospitals and other customers. CMS has a computerized information system. This system is used to calculate orders for restocking CMS using stock on hand and issues data. CMS Zonal sends its orders to CMS Central by email and receives deliveries 1-2 times a month.

ASSIGNMENT:

1. Identify the problems
2. List the strengths and weaknesses in the supply chains.
3. Discuss some possible recommendations you might make to ensure that the increased supplies of HIV/AIDS commodities are available for use at service delivery points.

SESSION 12 FIELD VISIT

Before Leaving on Your Site Visit

Get together with those going to the same site as you and do the following:

- Appoint a team leader and representative (not necessarily the oldest male)
- Review the Checklist carefully
- Develop a general plan of action and appoint leads for different Checklist sections. (all should be involved in leading discussions with staff)
- Organize all necessary materials you will need to take i.e. SOP manual, Supervisors manual, Participant guide, calculators, pens, note books for taking good notes
- Appoint a person to be the logistics and transport lead to ensure group leaves and returns on time (communicates with the driver as needed)

Field Visit Checklist

Group members' _____ Department: _____

Facility type: District Office / District Hospital / Tehsil Hospital / Rural Health Center / Basic Health Unit - Data Gathering Method: R = Reading, O = Observation, D = Discussion

S/No	Indicator	Method	Observations	Recommendations (for class presentations)
	Pre- Visit			
1.	Review of district Logistics data from LMIS (www.lmis.pc.gov.pk)			
2.	Review the demographic and other health indicators of the districts			
3.	Review what type of health and / or population services are being provided by the facility			
	During Visit			
	<i>Standard Operating Procedures & Guidelines</i>			
4.	Do written storage guidelines and procedures exist			
5.	Do written ordering guidelines / job aids exist			
6.	Do written shipping guidelines / job aids exist for commodities (if applicable)			
7.	Any other observation			
	<i>Commodity Availability</i>			
8.	Discuss availability of a few key commodities (Condoms, Oral Contraceptive, Essential Medicines etc.) and observe their stock positions by reviewing their bin or stock cards			
9.	Are any commodities typically over or under stocked Evaluate the reason(s) for this.			
10.	Which products does the facility typically stocks out of			
11.	How are problems of under/over stock are handled			
12.	Are stock cards available and completed accurately? Are they up to date for products?			

13.	Observe whether the stocks have been most recently ordered have been delivered			
14.	Any other observation			
	<i>Storage</i>			
15.	Are damaged stocks counted and separated from the other stock and appropriate actions taken?			
16.	Is the Store room well lit yet protected from direct sunlight and well ventilated?			
17.	Is the store room clean and free of clutter and non related items?			
18.	Are medicines kept off the floor and stacked properly?			
19.	Are stocks are arranged by FEFO (first expiry first out)			
20.	How are physical inventories conducted? How often are then done.			
21.	Any other observation			
	<i>Ordering</i>			
22.	How are the quantities to be ordered determined			
23.	Are past order forms completed correctly and fully			
24.	What percentage of the time do you receive your orders on time?			
25.	Are the supplies received according to requested quantities			
26.	Any other observations			
	<i>Human Resources</i>			
27.	Did the staff receive formal training for managing inventory			
28.	Did the staff receive formal training for ordering and receiving orders			
29.	If you could receive logistics training in any one area what would help you most to do your job?			

What can be done for low cost or no cost?

For additional observations not included in the checklist use the space provided below

General Comments / Observations

When at the site

- Make the appropriate introductions
- Remember we are guests at these sites and not their supervisors. Please be respectful and sensitive to their needs
- Positive feedback and good listening are always appreciated
- Take lots of good notes
- Watch the time
- Thank the In-Charge at end of visit

General questions to ask

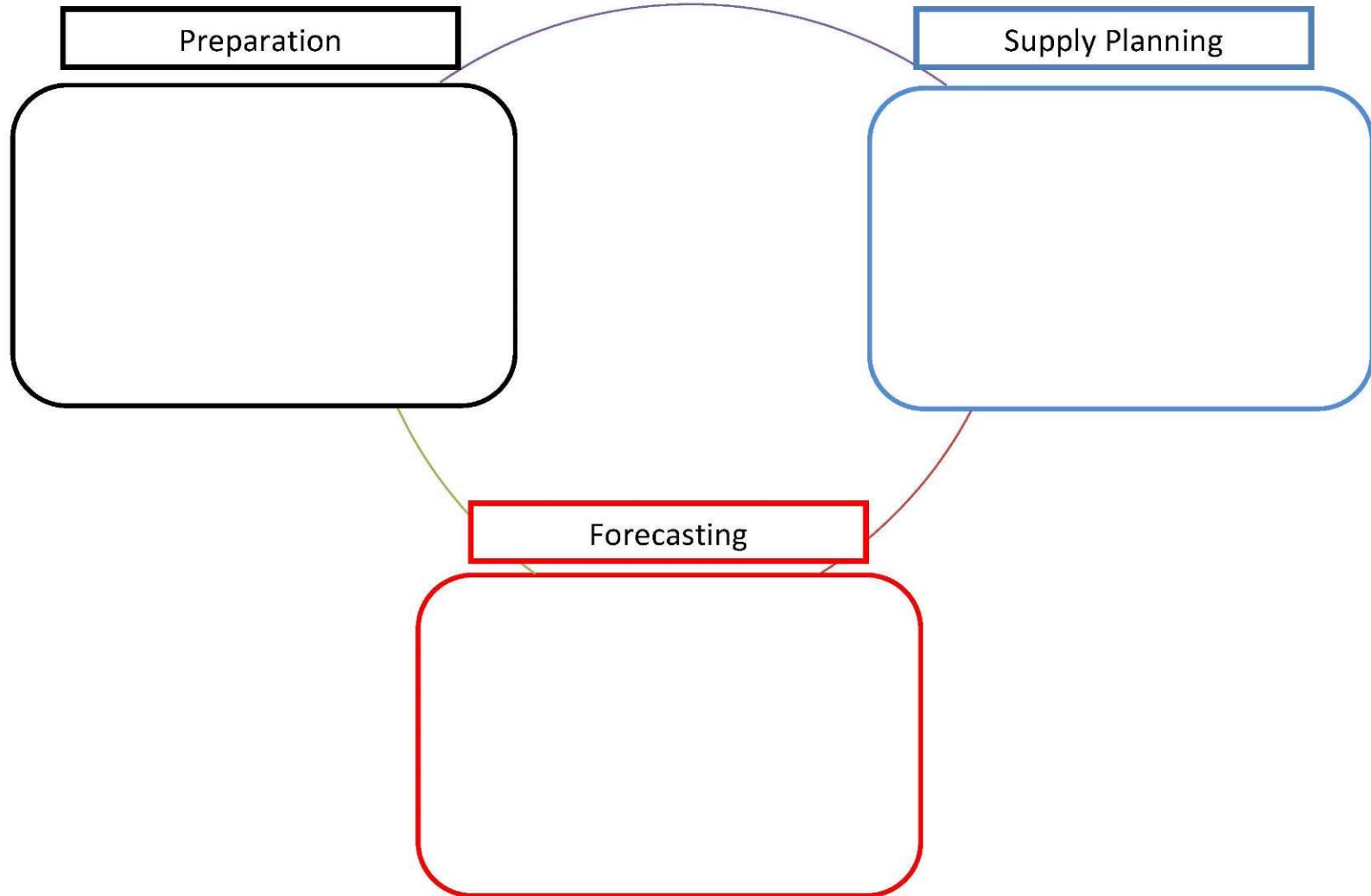
- How many people work at this facility?
- Who is responsible for managing the family planning, TB or Essential Drugs and other health commodities?
- What other data are being collected for commodities and for what use?
- What are your most common challenges?
- What are you most proud of about your work/facility?

SESSION 13 QUANTIFICATION OF HEALTH COMMODITIES

Steps in Quantification

Instructions

1. Put these steps in the order in which you think they occur when conducting Quantification. Number the boxes 1,2,3 and draw arrows on the lines to indicate the direction of the steps
2. List the activities that you think are a part of each Quantification step inside each box.



Forecasting Using Four Data Types: Worksheet

Instructions:

Fill in the blanks in the following statements using the appropriate word from the list at the bottom of the worksheet.

1. Forecasting based on services data counts the number of _____, or _____.
2. In forecasting using morbidity data, to convert the number of cases of a disease or health condition to be treated into the quantity of medicines needed, you need to know the _____.
3. When forecasting using consumption data, the specific data to be used is _____.
4. Morbidity data is usually collected from _____.
5. Forecasting using _____ uses population variables that can be found in surveys and from the _____.
6. To convert number of visits into the quantity of product required you must use the _____.
7. Data for forecasting using consumption data comes from the _____.
8. _____ represents the number of units of a contraceptive needed to protect a couple for a year.
9. Forecasts for contraceptives can not prepared done using _____ .
10. Prevalence is an example of _____ data.
 - national census data
 - CYP factor
 - cases of disease treated
 - demographic
 - demographic data
 - dispensed-to-user data
 - dispensing protocols
 - HMIS
 - LMIS
 - morbidity data
 - new visits/revisits
 - services provided
 - standard treatment guidelines
 - disease surveillance reports

Recommend “Default” Couple Years of Protection Factors (CYP) Updated 12/11

Method	CYP Per Unit
Copper-T 380-A IUD	4.6 CYP per IUD inserted (3.3 for 5 year IUD e.g. LNG-IUS)
3 year implant (e.g. Implanon)	2.5 CYP per implant
4 year implant (e.g. Sino-Implant)	3.2 CYP per implant
5 year implant (e.g. Jadelle)	3.8 CYP per implant
Emergency Contraception	20 doses per CYP
Fertility Awareness Methods	1.5 CYP per trained adopter
Standard Days Method	1.5 CYP per trained adopter
LAM	4 active users per CYP (or .25 CYP per user)
Sterilization*	
Global	10
(India, Nepal, Bangladesh)	13
Oral Contraceptives	15 cycles per CYP
Condoms (Male and Female)	120 units per CYP
Vaginal Foaming Tablets	120 units per CYP
Depo Provera (DMPA) Injectable	4 doses per CYP
Noristerat (NET-En) Injectable	6 doses per CYP
Cyclofem Monthly Injectable	13 doses per CYP
Monthly Vaginal Ring/Patch	15 units per CYP

*The CYP conversion factor for sterilization varies because it depends on when the sterilization is performed in the reproductive life of the individual. For more specific data on CYPs and sterilization, consult with national DHS and CDC reproductive health survey records which may provide a historical calculation based on a specific country’s context.

What is it?

CYP is the estimated protection provided by contraceptive methods during a one-year period, based upon the volume of all contraceptives sold or distributed free of charge to clients during that period.

How is CYP calculated?

The CYP is calculated by multiplying the quantity of each method distributed to clients by a conversion factor, to yield an estimate of the duration of contraceptive protection provided per unit of that method. The CYP for each method is then summed for all methods to obtain a total CYP figure. CYP conversion factors are based on how a method is used, failure rates, wastage, and how many units of the method are typically needed to provide one year of contraceptive protection for a couple. The calculation takes into account that some methods, like condoms and oral contraceptives, for example, may be used incorrectly and then discarded, or that IUDs and implants may be removed before their life span is realized.

Why does USAID use CYP as an indicator to measure program performance?

CYP is easy to calculate from data that programs routinely collect; these data can come from a variety of sources and

are relatively easy to track. The term "CYP" reflects distribution and is a way to estimate coverage and not actual use or impact. The CYP calculation provides an immediate indication of the volume of program activity. CYP can also allow programs to compare the contraceptive coverage provided by different family planning methods.

Source: http://www.usaid.gov/our_work/global_health/pop/techareas/cyp.html

SESSION 14 PROCUREMENT

CHEATERS' QUIZ

There aren't many rules about a "Cheaters' Quiz," except that you must cheat. First try to answer the questions on your own. It is true that much of the information in this session is not for memorization, but it is important to know where to find the information in the reference materials you now have, such as the Contraceptive Procurement Manual. Consult it as needed.

When you have written your own answers, find a colleague with whom you can “cheat” so that you and the colleague get as close as possible to perfect scores. You need not put your name on this paper. It is not to hand in. Your lecturer will review the final answers with you.

-
1. These questions concern the principles of procurement. Write **Both** before the principles that apply to both private and public procurement. Write **Public** before the principles that apply only to public procurement.

_____ Economy	_____ Fairness
_____ Efficiency	_____ Transparency
_____ Equality	_____ Accountability
 2. Would you say that the procurement process is easier in the private sector or in the public sector? Give reasons for your answer. _____

 3. For this question, you need to match up the words or phrases in the right column with the Principles of Competitive Bidding in the left column. Just write the letter from the item in the right column in the space before the Principle in the left column. For example, if Item X in the right column matches Principle 100 in the left column, you would write an X in front of Principle 100. Caution: some of the terms or phrases are used in a technical sense rather than the common dictionary meaning.

4.

_____ 1. Suitable Package of Bid	A. Reasonable Costs for Bidding Docs
_____ 2. Early Warning	B. Info only to authorized parties
_____ 3. Non Discrimination	C. Attract many interested parties
_____ 4. Accessible	D. “Substantially Responsive”
_____ 5. Neutrality	E. Negotiate minor points afterwards
_____ 6. Formality	F. Sealed Envelopes by stated time
_____ 7. Confidentiality	G. No Specific Brands
_____ 8. Consistency	H. Judge on basis of same criteria
_____ 9. Objectivity	I. 15 days for NCB
_____ 10. No Pre-Award Negotiation	J. Advertise Widely

(Continued on next page.)

Caution: There may be some “trick” questions below. The answer may be somewhat debatable but can lead to worthwhile discussions.

4. In the spaces below, write one of the four types of procurement methods used in public procurement. Your choices are CB for Competitive Bidding (which can be either ICB or OCB), RQ for Requests for Quotations, DC for Direct Contracting, and PP for Petty Purchases.

1. _____ Could come from any country
2. _____ Just one contractor and no other bids
3. _____ CB but with no foreign companies
4. _____ Based on lowest evaluated cost among quotes from a few suppliers
5. _____ There are two types of this type
6. _____ Below Rs 25 000
7. _____ Based on PP Rules 2004 and PP Regulations 2008
8. _____ One Chosen Supplier
9. _____ Large, complex, and the subject of the next session in the course

5. In what document can you find the Ten Principles of Competitive Bidding?

6. Which is better, ICB or OCB? Try to justify your answer.

7. Does the information in the **Contraceptive Procurement Manual** apply only to contraceptives or to most public health commodities?

8. Which has a longer Early Warning, ICB or OCB? Why do you think one is longer than the other?

9. Which is more important, to have a bid that is technically accurate or one that completely complies with all the formal requirements and documents that must be included in an acceptable bid?

10. What would you think “eeefta” stands for?

Bonus question: What is sp-ew-nd-a-n-f-c-c-o-nn?

Session 14, Procurement, Activity 2, Slides 14-35

CHEATERS' QUIZ

There aren't many rules about a "Cheaters' Quiz," except that you must cheat. First try to answer the questions on your own. It is true that much of the information in this session is not for memorization, but it is important to know where to find the information in the reference materials you now have, such as the Contraceptive Procurement Manual. Consult it as needed.

When you have written your own answers, find a colleague with whom you can “cheat” so that you and the colleague get as close as possible to perfect scores. You need not put your name on this paper. It is not to hand in. Your lecturer will review the final answers with you.

1. The Procurement Unit should prepare the Procurement Requisition documents for the Programme Manager to review. True or False? And give a brief explanation why:

2. Following the documented procedures and checklists for the competitive bidding process helps avoid many problems later. True or False? And give an example of why this is true or false:

3. Tick the items below which are part of the Standard Bidding Documents.

- | | |
|---|--|
| <input type="checkbox"/> Instructions to Bidders | <input type="checkbox"/> Tech Specifications |
| <input type="checkbox"/> Bid Data Sheet | <input type="checkbox"/> Schedule of Requisitions |
| <input type="checkbox"/> General Conditions of Contract | <input type="checkbox"/> Specific Conditions of Contract |
| <input type="checkbox"/> Bid and Contract Forms | <input type="checkbox"/> List of Ineligible Bidders |

4. The ITB and Bid Data Sheet include which of the following? Tick your answer(s).

- ☐ Dates, times, and other info about a bid opening
- ☐ Criteria for eligibility and qualification of potential bidders
- ☐ Specific criteria with which the bids will be evaluated
- ☐ All of the three above plus other guidance

5. Which of these is **never** included in a standard bidding document package?

- ☐ The price schedule for bidders to fill out and submit
- ☐ Manufacturer's authorization letter
- ☐ Performance Security Form
- ☐ The prices of the winning bid of the last similar procurement

(Continued Next Page)

6. The required technical specifications for a bid should be written

- ☐ Only by qualified bidders
- ☐ By the programme manager
- ☐ By the procurement unit
- ☐ By qualified experts on the commodity involved (Could include programme manger)
- ☐ By accountants

7. One of the four basic bidder qualifications is adequate production capacity and experience. Is this true or false? _____ Regardless if it is true or false, can you give an example of one of the bidder qualifications?

8. Which of the following are key sources of information and guidance during the bidding process? (Put a tick mark in front of your answers.)

- ☐ Meetings with agents or firms who probably wish to bid
- ☐ The Contraceptive Procurement Manual
- ☐ Experienced colleagues
- ☐ Public Procurement Rules 2004

9. The General Condition of Contract has standard clauses to insert on which of these topics? (Put a tick mark in front of your answers.)

- | | |
|--------------------------------------|---|
| <input type="checkbox"/> Warranty | <input type="checkbox"/> Delivery |
| <input type="checkbox"/> Termination | <input type="checkbox"/> Names of Contract Committee Members |
| <input type="checkbox"/> Payments | <input type="checkbox"/> Internet sites with insider info for bidders |

10. Which of the following three principles is the most important in the procurement process: Neutrality, Confidentiality, or Consistency? Be ready to defend your answer:

These challenge questions are optional and only for the students who feel they have a good basic understanding of the content.

Challenge Question A: What are three non-technical reasons for which a bid might be rejected?

Challenge Question B: Is it more important for a bid to be filled out completely with all the required administrative forms and info or to be technically correct? Defend your answer.

Session 14, Activity 2

Case Study

In 2011, the program “PREVENT” (a fictitious name) began a subsidized social marketing program for condoms in Iraq. Its purpose was to sustain condom distribution where donor funding was being phased out. The Ministry of Health’s (MOH) procurement agency, the Medical Stores Iraq (MSI), was their primary in-country partner for distribution activities.

The World Bank had provided bulk condoms to Iraq in the past, but was now providing “seed money” to PREVENT to start the process of phasing out their support. PREVENT would procure a six-month condom supply to launch its new program. The condoms would be repackaged under the social marketing program logo, and MSI would manage the distribution to pharmacies, public health facilities, and nongovernmental organization programs.

The program was late in getting started, so Mr. Afkhazar, the PREVENT program manager, negotiated a sole source procurement with one manufacturer, Kobe Company of Korea since their condoms had already been registered in Iraq for sale on the private market. He communicated by email with the manufacturers on price. On August 1, 2011 PREVENT issued a contract (PREV-12) to Kobe Company for 900,000 condoms for a total price of 45,000 USD. Kobe produces 150,000 condoms per lot so this order consisted of 6 lots of condoms.

Shortly after placing the order the Minister of Health of Iraq, who was planning a big promotion for the launch of the program, told Mr. Afkhazar that the date for the launching ceremony was scheduled for October 1. For the ceremony he wanted to have 300,000 condoms available to start distribution.

Mr. Afkhazar called Kobe Company and told them that he needed 300,000 condoms by October 1 for the launching ceremony. He also told them that he would like another 300,000 by November 1 and the final 300,000 by December 1. These staggered deliveries would make it easier to manage his limited warehouse space. The Kobe Company representative said they would try to accommodate this request.

Unfortunately, things did not go according to plan. The week before the ceremony Mr. Afkhazar contacted the Kobe Company and asked if the condoms had shipped and why he hadn’t received shipping documents. The Kobe representative informed him that there had been problems with the batches of latex they received from their suppliers and this had delayed production.

The condoms finally arrived at the port of entry for Iraq on October 15, two weeks after the scheduled launching ceremony. The shipment was for the entire amount, 900,000 condoms, instead of the 300,000 condoms that Mr. Afkhazar had requested. The shipment did not clear customs for three weeks and incurred demurrage charges since customs reported that the shipment did not include the Supplier’s Certificate of Origin document which is required by Iraq customs for clearing condoms.

After clearing customs, the National Regulatory Control Laboratory (NRCL) took samples from the 6 lots of condoms for testing in accordance with the WHO specifications for condoms. When the testing was complete, two lots failed ISO 4074:2002 standards for latex thickness and air burst limits. The NRCL rejected the goods for entry.

The four lots of condoms that passed NRCL tests were delivered to the contractor who was responsible for repacking the condoms into the social marketing package. Upon receiving the condoms, the contractor called Mr. Afkhazar and informed him that they would not accept the condoms. Their social marketing program calls for condoms packaged in strips of three each and the condoms they received were all single packages. Also the condom foil was to be colored

blue and yellow to match the social marketing program promotional colors and the condoms they received were packaged in orange foil.

The next day Mr. Afkhazar received an invoice from Kobe Company for the remaining 80% due on all 6 lots of condoms (PREVENT had originally made a 20% advance payment to Kobe Company when the contract was signed). The invoice included a higher per condom price than originally agreed to because Kobe Company reported that the cost of latex had increased so they had to increase their condom prices.

The Minister of Health is furious over the situation with the condoms from Kobe Company. His launch was delayed. They do not have any condoms that they can use from the original order for 900,000 condoms and the social marketing program is in jeopardy. He does not want to approve the remaining 80% payment due to Kobe Company.

He is asking you, the Procurement Manager at MSI, to review the PREVENT contract to Kobe Company and advise him what contractual remedies exist to not pay Kobe the 80% remaining balance. (Since the contract to Kobe Company was issued in a hurry, and he had heard from a private marketer that Kobe Company had been a good supplier, Mr. Afkhazar did not request an advance payment guarantee for the 20% advance payment and did not request a Performance Bank Guarantee of 10% of the contract value.)

Instructions:

You have received a copy of the following components from the contract issued to Kobe Company for 900,000 condoms:

- Schedule of Requirements
- General Conditions of Contract, and
- Special Conditions of Contract.

1. Review the contract components and determine what contract rights and remedies exist to address the following problems:
 - a. Late delivery of shipment
 - b. Delivery of entire contract amount in one shipment instead of three shipments
 - c. Failure to provide customs clearance documents with shipment
 - d. Failure of two lots to comply with National Regulatory Control Laboratory requirements
 - e. Failure of condom packages to comply with social marketing packaging and color requirements

- f. Kobe Company's invoice to pay a higher per unit condom price than the original contract price
 - g. The right to not pay the remaining 80% balance due on the contract
 - h. The right to seek reimbursement of the 20% advance payment made..
2. Discuss what mistakes were made in preparing and issuing the contract to Kobe Company?
3. Discuss and list the contract recommendations you would make to protect the PREVENT program if such problems were to occur again.

Homework by Session

Session 2 Setting the Context of the Course: Commodity Security

- Read Logistics Handbook – Chapter 1 Introduction to Logistics
- Take Distance Learning Session 1 Introduction to Logistics

Session 3 Introduction to Health Logistics Systems

- Muhammed Tall's Field Notes with Happy Baby NGO – Read and answer questions for Memo's 1, 2, 3 and 4

Session 4 Logistics Management Information Systems

- Take Distance Learning Session 2 LMIS
- Read Logistics Handbook – Chapter 4 Logistics Management Information System
- Muhammed Tall's Field Notes with Happy Baby NGO – Read and answer questions for Memo 5

Session 5 Health Commodity Storage and Distribution

- Take Distance Learning Session 6 Storage of Health Commodities
- Read Logistics Handbook – Chapter 8 Storage and Distribution

Session 6 Assessing Stock Status

- Take Distance Learning Session 3 Assessing Stock Status
- Muhammed Tall's Field Notes with Happy Baby NGO – Read and answer questions for Memos 6 & 7

Session 7 Max-Min Inventory Control Systems

- Read Distance Learning Session 4 Max/Min Inventory Control Systems
- Take Distance Learning Session 5 Selecting Max/Min Inventory Control Systems – better for second half of the session
- Read Logistics Handbook – Chapter 10 – Logistics System Design

Session 9 Assessing Stock Status at Any Level

- Read Logistics Handbook – Chapter 3 Assessing Stock Status

Session 11 Assessing Logistics Systems

- Muhammed Tall's Field Notes with Happy Baby NGO – Read and answer Qs for Memos 7 & 13

Session 13 Quantification of Health Commodities

- Take Distance Learning Session 8 Quantification of Health Commodities – approx 2 hours
- Read Logistics Handbook - Chapter 5 Product Selection
- Read Logistics Handbook - Chapter 6 Quantification of Health Commodities

Session 14 Procurement

- Read Logistics Handbook – Chapter 7 Health Commodity Procurement

Session 15 Monitoring and Evaluation

- Read Logistics Handbook – Chapter 9 Monitoring and Evaluation of Supply Chains

Term paper

Each student is required to submit a term paper which will account for 25% of the course evaluation. Following are four thematic areas for a term paper:

1. Utilizing the consumption data of contraceptives reported in LMIS, perform quantification for next fiscal year for any of the contraceptives.
(The exercise will be done for real consumption data available in LMIS for the next fiscal year – July to June. An estimated growth in demand is kept at 5%)
2. Procurement assignment
3. Select a district store or warehouse, assess the storage conditions (temperature, humidity etc.) for all the health products available at the warehouse and recommend cost effective and feasible strategies to improve storage conditions in line with storage guidelines.
4. Analyze the pipeline and reporting for at least two important health commodities and write a report on it.

Students should select one theme as their area of research / assessment and write a detailed report on it. Each student must first develop a two to three page proposal to outline their work. The proposal should include the following components

1. Background (includes problem statement or challenge being faced)
2. Methodology (could be qualitative research, quantitative research, and / or literature review)
3. Plan of analysis

Each proposal should be submitted to the assigned supervisor within first three weeks of the start of the course. Students will review and finalize the proposal in the light of the recommendations. Students will start implementing their project only after approval of their proposal by the supervisor.

Report outline

Following are the key components of the final report to be submitted

1. Background (reviewed and refined in the light of findings)
2. Methodology (a detailed explanation of actual methodology employed)
3. Results (should be a meaningful analysis of the challenge within the global, regional and local context)
4. Discussion (should include scientific analysis and comparisons of results and cost effective and feasible recommendations for a Pakistani context)

Below please find the case study assignments for the Muhammed Tall and the Happy Baby NGO.

Muhammed Tall's Field Notes with Happy Baby NGO

Welcome to Acme Pharmaceutical's headquarters. I am the Acme chief. Several days ago, our logistics expert, Muhammed Tall, disappeared while on assignment in Neighboria, where he had been working to help managers of the Happy Babies non-governmental organization (NGO) improve their logistics system. When several Acme employees and I went to his hotel room at the Center City Lodge, we discovered that he had checked out. He left his briefcase and laptop computer, but not his clothes. We printed his files on Happy Babies. Although the hotel staff remembers Muhammed leaving the hotel, they do not know where he went. Muhammed's files are almost complete. He has not, however, written a report to the NGO. I have written some important questions on the printouts. Please help us write Muhammed's report. Attached are his files, in date order. Please answer the questions that follow each memo.

This is the earliest memo we found:

Memo #1

To: Acme Chief

From: Muhammed Tall

Reference: My visit to Neighboria

I arrived in Neighboria to assist the Happy Babies NGO in logistics for contraceptives and other medical supplies. Everyone here seems committed to improving the availability of high-quality supplies. While here, I will prepare regular progress reports for you to review. I will be traveling throughout Neighboria during the next few weeks, and it may be difficult to contact me. Please send messages to me through the office of the Director of Happy Babies.

Before reading the memos and completing the assignments, read chapter 1 of *The Logistics Handbook*.

Memo #2

To: Acme Chief

From: Muhammed Tall

Reference: My visit to the Happy Babies NGO Clinic in Medville

Today, I visited Dr. Emily Lead, the director of the Happy Babies NGO clinic in Neigboria's fourth largest city, Medville. She took me on a tour of her facility. The clinic has a nice waiting area with many educational materials and several comfortable chairs.

Dr. Lead told me that they offer a wide variety of reproductive health services that focus on family planning. They also offer antenatal, pregnancy, and post-natal care, and sexually transmitted disease (STD) prevention and treatment, and immunizations.

There are four patient rooms, each set up a little differently. In the first room, Dr. Lead told me that they offer care to pregnant patients, including post-natal care (with immunizations) and pap smears. The room is equipped with a scale, exam table, autoclave, and equipment for gynaecological exams. Latex gloves, KY jelly, and antiseptics are available, and there are dozens of pregnancy test kits stacked in a corner of the room.

Two of the patient rooms are set up for contraceptive counselling. In these rooms there are contraceptives and models for counselling. HIV/STD prevention cases are seen in these rooms, as well as testing for pregnancy. While one room has gloves available for examination, the other room has none.

Dr. Lead tells me that the nurses complain that they do not have enough gloves. To respect the privacy of the patients, the nurses do not want to enter a room to take gloves from one room to another.

Dr. Lead explains that they offer condoms, oral pills, vaginal foaming tablets, intrauterine devices (IUD), and injectable contraceptive methods. I asked her about progestin-only contraceptives for women who are breastfeeding. She told me that she ordered the mini-pill Ovrette, but received only the combined oral contraceptive (COC) pill Lo-Ovral.

In the last room, they diagnose and treat STDs. Latex gloves, drugs, STD test kits, and various antiseptics were available. I saw several test kits with expired items. "We ordered too many pregnancy test kits from the hospital," Dr. Lead told me, "and now I cannot afford to replace the STD test kits." This clinic is not fulfilling all of the six rights.

Your Assignment:

1. For each of the six rights, state whether or not it is being followed at this clinic.
2. For each right that is not being followed, suggest how this situation could be improved.

Your Answers (Write your answers in the space below or on a separate sheet of paper.)

Memo # 3

To: Acme Chief

From: Muhammed Tall

Reference: My Visit to the Happy Babies NGO Central Office

Today, I visited the central office of the Happy Babies NGO. They operate 25 clinics in Neighboria, including Dr. Lead's clinic in Medville, and three hospital facilities. The largest hospital, located in Neighboria's capital, Center City, also houses the NGO's administrative office and the central warehouse. Happy Babies has 300 community outreach volunteers who receive supplies from the clinics. Head pharmacist Michael Rocher, is in charge of their medical supplies. He explained that his main goal is to "make sure that the products we need are available when they are needed." He explained that he and the pharmacists from the clinics meet once each year to determine our needs for future years. "Everything changes," he told me, "and we want to be flexible in our thinking, so we can respond appropriately."

I asked him if he was familiar with the activities of a logistics system. He immediately mentioned "quality control." He said it was very important that they receive good quality supplies. He said they inspect all supplies coming from manufacturers. He also mentioned that it is important to monitor the quality of supplies leaving their warehouse. "It would be wasteful to ship supplies that are about to expire to the clinics," he explained.

He said that an important logistics activity was to ensure that they did not have either too many or too few supplies. "We do not have the money or space to store large quantities, so we want to ensure that we are making an appropriate order."

We discussed the importance of monitoring the flow of supplies in the system. "I try to always know which facilities have supplies and where shortages may occur." He also noted that money is an important consideration. "Without money, we cannot buy our supplies."

We discussed the importance of other activities in a logistics system. To make our discussion easier to follow, I drew a picture of the relationship among the activities. "This makes sense." Pharmacist Rocher told me. "Now I understand how our new policy to distribute condoms to sexually active youth might affect our logistics system. The relationship is clear."

Your Assignment

1. What activities did Muhammed and the head pharmacist discuss that support the six rights? Which activities are missing from the pharmacist's explanation and discussion?

2. What is the picture that Muhammed Tall drew? What is one reason that Pharmacist Rocher said the drawing helped him understand the new policy for condom distribution?

Memo # 4

To: Acme Chief

From: Muhammed Tall

Reference: Key terms and comparisons

Since coming to Neighboria, I realize that some terms I use might not be clear. I need to help others understand special terms or meanings. For example, Dr. Lead told me that she was concerned about serving her patients. When I used the word "customer" she was confused. I told her why we also use the term "customer."

Head Pharmacist Rocher also told me that the term "lead-time" is one he has heard, but does not know what it means. I asked him to explain the ordering procedure for the hospitals, clinics, and community-based volunteers.

He told me the following:

- At the end of each quarter, the hospitals complete their reports.
- They usually mail their requests to him, and the mail takes about 10 days.
- It takes about five days for him to review the reports and (a) distribute the supplies.
- He usually sends the hospitals what they ask for, unless there is an error in their calculations.
- It takes about three days for the trucks to go from Center City to each hospital.
- The hospital pharmacies are usually quite busy, so it may take another two days for the hospital pharmacist to put the supplies on the shelves.
- Hospitals (b) distribute some supplies directly to customers who come for service, but most supplies (c) are distributed to the clinics.
- For the clinics, he told me that the nurses take their report to the hospital each month, and they use their personal transportation.
- The pharmacist at the hospital reviews their request, calculates their needs, and (d) distributes the supplies to take back to the clinic. The nurse can return to the clinic the same day. Most nurses, however, spend the night in town and return the next morning.
- At the clinic, the nurses immediately place the supplies in their cabinets.
- Clinic supplies are (e) distributed to customers and (f) are distributed to the community-based volunteers. There are 300 community-based volunteers helping the Happy Babies NGO.
- The community-based volunteers visit the clinic many times each month. They either walk or use public buses.
- Community-based volunteers request the supplies they need and the doctor or nurse in charge of the clinic (g) distributes them, with the supplies, all in less than one day.
- Volunteers supplies (h) are distributed to customers living in the community.

Using this information, I explained the term “lead time” to Pharmacist Rocher, and calculated the lead time for the hospitals and clinics.

He seemed confused about the term “pipeline.” When I asked him what he meant by pipeline, he said that the pipeline included all the storerooms where supplies are kept. He left out an important part of the definition.

When I asked Pharmacist Rocher the number of service delivery points (SDP) for Happy Babies, he told me they have 25 clinics and also operate three hospitals. He asked me how many SDPs that would be.

Your Assignment

After reading Muhammed’s report, answer the following questions on the following blank pages:

1. Why does Muhammed Tall use the term “customer” instead of “patient”?
2. What is the lead-time for hospitals from the main office? What is the lead-time for clinics from hospitals? What is the lead-time for community-based volunteers from clinics?
3. Part of Pharmacist Rocher’s definition of pipeline is missing. What is it?
4. Draw the pipeline for the Happy Babies’ logistics system.
5. How many SDPs are there in the Happy Babies’ logistics system?
6. Is the relationship a *push* system or a *pull* system for the following:
 - a. Between the central stores and the hospitals
 - b. Between the hospitals and the clinics
 - c. Between the clinics and the community-based volunteers
 - d. Between the community-based volunteers and their customers
7. Muhammed’s memo uses the term “distribute” in his descriptions, but the term should be “issue” or “dispense,” as appropriate. Please substitute the correct term for each of the following uses in memo #4:
 - a. distribute
 - b. distribute
 - c. are distributed
 - d. distributes
 - e. distributed
 - f. are distributed
 - g. distributes
 - h. are distributed
8. Is the Happy Babies logistics system integrated or vertical? Explain?

Before continuing, read chapter 2 of *The Logistics Handbook*

Memo # 5

To: Acme Chief

From: Muhammed Tall

Reference: Managing Information at the Happy Babies Clinics

Today, I visited a rural clinic for the Happy Babies NGO in Littleton. This clinic reports to the Southland Hospital of the NGO. During my conversation with Nurse Jane Assuagme, charge-nurse for the clinic, we talked about the forms she is required to complete. "We collect so much information," she told me, "I feel like I spend half of my time completing forms! Why does the hospital ask us to collect so much information?" First, I told her why we collect information. Then, I explained there were a number of decisions that could be made from the in-formation. These decisions could affect her clinic, the Southland Hospital, or perhaps the entire Happy Babies NGO.

She also asked me what information is essential and what information is not. I told her that while much of the information she collects is quite useful, only three pieces of information form the essential data needed to run a logistics system.

Nurse Assuagme showed me the forms she must complete for the family planning section of the NGO. I am attaching a copy of each of the forms to this report. I have some suggestions for improving these forms. We can discuss them when I return.

Nurse Assuagme mentioned that she was recently trained in completing forms for community-based volunteers, who would begin working from her clinic in the coming months. She could not remember if she should complete one re-port for all volunteers and one report for the clinic or one report for both the volunteers and the clinic, combined. I explained the difference between the two methods of reporting and why the differences are important.

The nurse was confused about a new report she receives each month, the Feedback Report. She asked me why she got this report, with a list of the other clinics that report to the Southland Hospital. and what was she supposed to do with it. I explained the report. I am attaching a copy of her most recent feedback report.

Memo 5 Form 1

HAPPY BABIES NGO FAMILY PLANNING SECTION

Name of Clinic:		Month:		Year:	
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Method of Contraception	1 st Visit	Revists
Lo-Femenal	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
Ovrette	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
All Other Oral	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
Condom	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
DepoProvera® Injectables	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
Vaginal Tablet	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
CuT380a IUD	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
Pregnancy Test	00000 00000 00000 00000 00000	
	00000 00000 00000 00000 00000	
Other	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
Clients Counseled	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000

Notes: Tick one circle for each unit dispensed to a client.

Memo 5 **Form 2**

HAPPY BABIES NGO

Item: _____

Commodity No.: _____

Max. Stock: _____

Unit of Issue: _____

Min. Stock: _____

Transaction				Balance	
Date	To/From	Quantity Received	Quantity Issued	Losses/ Adjustments	Quantity on Hand

Happy Babies NGO

Facility Name: Section: Facility Location:

To (issue point) :

Please issue the stores listed below to (point of use) :

Code No.	Item Description	Unit of Issue	Quantity Required	Quantity Issued	Value	Remarks Purpose

Account No.: Date

Requisitioning Officer: Designation: Signature:

Issued by: Signature: Date

Received by: Designation: Signature:

MONTH: YEAR:

MONTH:	YEAR:
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**HAPPY BABIES NGO
FAMILY PLANNING SECTION**

Clinic Location:	Hospital Location:
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SERVICE STATISTICS

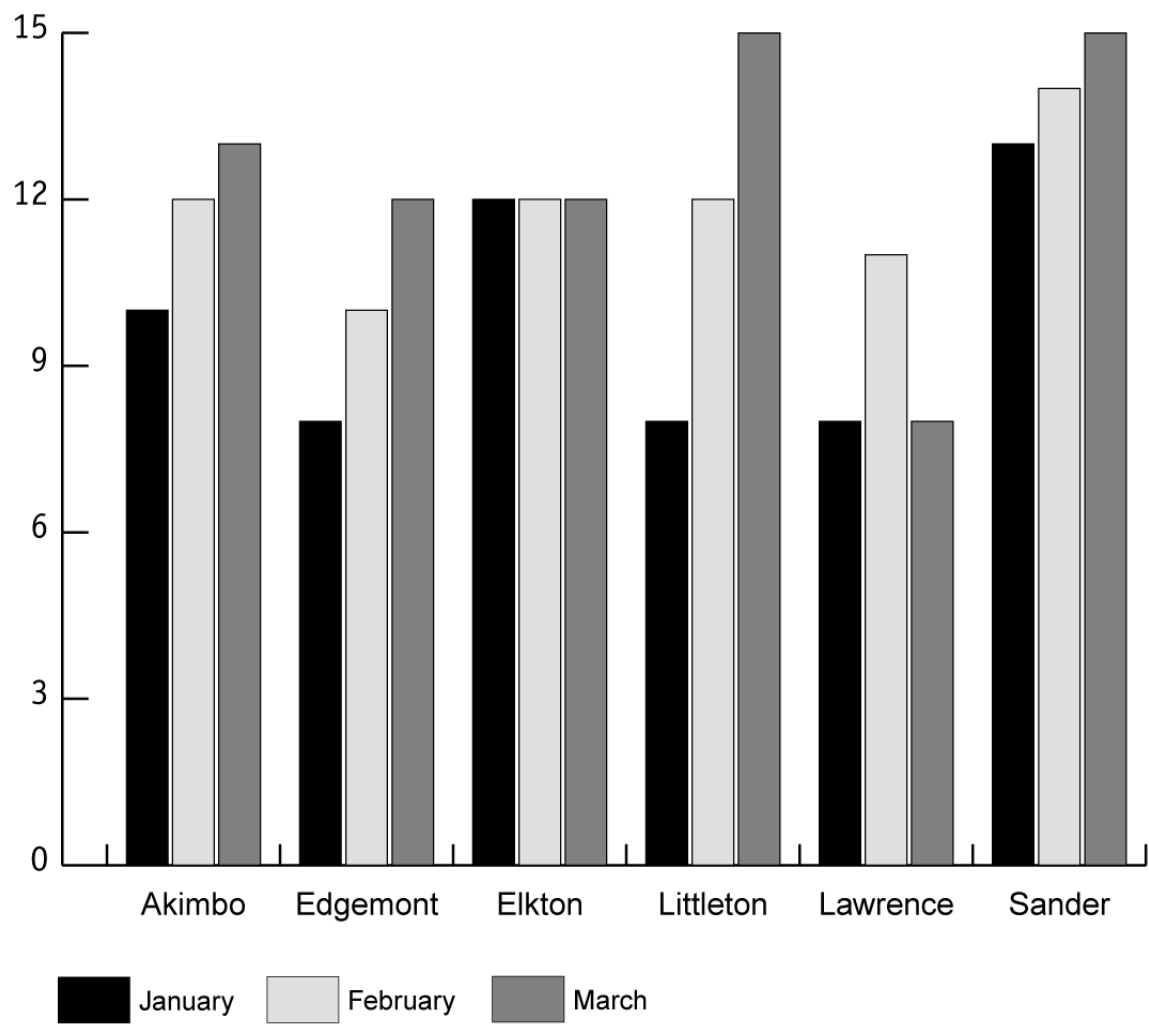
	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1 st Visit							
Revisits							

INVENTORY CONTROL

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock							
Quantity received							
Quantity dispensed							
Stock on hand							

Completed by: _____ Title: _____ Date: _____

Quarterly consumption of iuDs by clinic, by Month, for clinics reporting to the southland hospital



Your Assignment:

Answer the following questions on this page and the following blank page:

1. What do you think Muhammed said when he explained why we collect information?
2. What types of decisions can be made using logistics information?
3. What three data items are essential for managing a logistics system?
4. For each of the attached forms, answer the following questions:
 - a. What type of form is it?
 - b. What is the purpose of the form?
 - c. What essential data should be included on the form?
 - d. What change(s) could you make to the form to make it more useful?
5. When the volunteer workers begin reporting to Nurse Assuagme, should she complete one report for the volunteers and one report for the clinic or one report for both the volunteers and clinic combined? Why is the answer important?
6. Why does the nurse receive the feedback report Quarterly Consumption of IUDs by Clinic by Month for Clinics Reporting to the Southland Hospital? What should she do, if anything? What could she learn from the report?

Before you continue with your assignment, read chapter 3 of *The Logistics Handbook*.

Memo # 6

To: Acme Chief

From: Muhammed Tall

Reference: Assessing Stock Status

Head Pharmacist Rocher suggested that I accompany him on a supervisory visit to the Happy Babies Clinic in Smallville. Nurse Henderson met us when we arrived. She was glad to see Pharmacist Rocher and had several questions to ask him. I made notes about what I observed during their conversation.

Nurse Henderson: I'm glad to see you Pharmacist Rocher. I am a recent graduate of the nursing program, and have been appointed to manage the clinic here in Smallville. When I arrived, my predecessor Nurse Rachett had already departed for her new posting at another clinic. My only source of information is an old manual I found in the desk. I read it, but I am not sure if the information is accurate. I am concerned because, starting next month, I will begin supervising community-based volunteers from the clinic. I want to make sure I do my calculations correctly.

Pharmacist Rocher: I would be happy to help you. May I ask you some questions? Then, I can understand your concerns and help you.

Nurse Henderson: That sounds great. I hope I know some of the answers to your questions!

Pharmacist Rocher: Do not worry too much if you do not know the answer. I am here to help you. My first question is about assessing stock status. Can you tell me what "assessing stock status" means?

Nurse Henderson: I think assessing stock status means knowing when to make an order.

Pharmacist Rocher: Can you tell me what information is needed to assess stock status?

Nurse Henderson: I need to know how much of each product I received this month and how much of each product I give to clients each month.

Pharmacist Rocher: Where can you find that information? And, how do you calculate stock status using that information?

Nurse Henderson: I can get all of the information I need by looking at the stock cards. To calculate the stock status, I divide the amount of stock I received by the amount of stock I dispensed to clients.

Pharmacist Rocher: How many months of data should you use to make this calculation?

Nurse Henderson: For the most accurate figure possible, I use all the data I have.

Pharmacist Rocher: What would you do if you discovered that consumption was rising or falling rapidly?

Nurse Henderson: Consumption that is rising or falling rapidly is called a "trend." If I see a trend, I would change the amount I order.

Pharmacist Rocher: How would you change the amount?

Nurse Henderson: If the trend is an increasing one, I order twice as much, and if the trend is a decreasing one, I order half as much.

Pharmacist Rocher: Thank you for answering my questions. Let us review your answers, and I can show you how to improve the accuracy of your stock status assessment.

I watched Pharmacist Rocher correct the nurse for six errors. He offered her on-the-job training and Nurse Henderson was eager to learn the correct answers. I think she will be an excellent manager of supplies at this clinic, with Pharmacist Rocher's guidance. He is an effective supervisor who listens carefully.

After they reviewed the formulas, Pharmacist Rocher and Nurse Henderson worked together to assess her stock status for four of her contraceptive products. To make sure she understood what to do, they assessed the stock status each month for the past six months.

When there was only one month of data, I suggested they use only that month's data. I suggested that with two months of data, they use both months of data and divide by two. They agreed to continue this process, using all the available data and dividing by the number of months of available data, until they had six months of data.

I feel confident that Nurse Henderson understands how to assess stock status for her clinic.

I am attaching to my report a copy of the forms they used to assess her stock status.

Reports for Smallville::

Month: November	Year: 2000						
HAPPY BABIES NGO Family Planning Section Monthly Planning Report							
Clinic Location: Smallville	Hospital Location: Greenville						
SERVICE STATISTICS							
	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	1	3	8	6	0	2	20
Revisits	9	9	12	28	0	0	58
INVENTORY CONTROL							
	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	43	388	812	89	100	10	40
Quantity Received	100	200	300	50	0	0	10
Quantity Dispensed	28	12	192	34	0	2	15
Stock on Hand	115	576	920	105	100	8	35
Completed by: E. Rachett		Date: 3/12/01					
Title: Nurse							

Month: November	Year: 2000						
HAPPY BABIES NGO Family Planning Section Monthly Planning Report							
Clinic Location: Smallville	Hospital Location: Greenville						
SERVICE STATISTICS							
	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	2	3	6	6	0	0	17
Revisits	10	11	14	30	0	0	65
INVENTORY CONTROL							
	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	115	576	920	105	100	8	35
Quantity Received	0	0	0	0	0	0	20
Quantity Dispensed	32	14	200	36	0	0	17
Stock on Hand	83	562	720	169	100	8	38
Completed by: E. Rachett		Date: 5/1/01					
Title: Nurse							

MONTH: January YEAR: 2001

HAPPY BABIES NGO
Family Planning Section

Monthly Planning Report

Clinic Location: Smallville Hospital Location: Greenville

SERVICE STATISTICS

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	5	1	6	3	0	1	14
Revisits	10	9	10	37	0	0	66

INVENTORY CONTROL

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	83	562	720	169	100	8	38
Quantity Received	0	0	0	0	0	0	10
Quantity Dispensed	35	10	220	40	0	1	14
Stock on Hand	48	552	500	129	100	7	34

Completed by: E. Rachett Date: 2/2/01
Title: Nurse

Month: November Year: 2000

HAPPY BABIES NGO
Family Planning Section

Monthly Planning Report

Clinic Location: Smallville Hospital Location: Greenville

SERVICE STATISTICS

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	2	3	4	2	0	3	15
Revisits	12	9	13	40	0	0	34

INVENTORY CONTROL

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	48	552	500	129	100	7	34
Quantity Received	100	0	200	100	0	0	12
Quantity Dispensed	38	12	204	42	0	3	15
Stock on Hand	110	540	496	187	100	4	31

Completed by: E. Ratchett Date: 6/3/01
Title: Nurse

Month: November Year: 2000

HAPPY BABIES NGO
Family Planning Section
Monthly Planning Report

Clinic Location: Smallville Hospital Location: Greenville

SERVICE STATISTICS

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	10	3	7	6	0	0	26
Revisits	12	6	11	38	0	0	67

INVENTORY CONTROL

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	110	540	496	187	100	4	31
Quantity Received	0	0	0	0	0	1	15
Quantity Dispensed	46	9	180	44	0	0	12
Stock on Hand	64	531	316	143	100	5	34

Completed by: R. Henderson Date: 4/3/01
 Title: Nurse

Month: November Year: 2000

HAPPY BABIES NGO
Family Planning Section
Monthly Planning Report

Clinic Location: Smallville Hospital Location: Greenville

SERVICE STATISTICS

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	7	4	4	2	0	2	19
Revisits	11	10	8	45	0	0	72

INVENTORY CONTROL

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	64	531	316	143	100	5	34
Quantity Received	0	0	0	0	0	0	10
Quantity Dispensed	51	14	144	47	0	2	13
Stock on Hand	24	517	172	96	100	3	21

Completed by: R. Henderson Date: 6/5/01
 Title: Nurse

Your Assignment

1) Please note what Pharmacist Rocher said to correct Nurse Henderson during the on-the-job training.

What Nurse Henderson said:

a) The purpose of assessing stock status is to know when to order

b) to assess stock status, I need to know how much of each product I received this month and how much of each product I give to clients each month.

c) I can get all of the information I need by looking at the stock cards.

d) To calculate the stock status, I divide the amount of stock I received by the amount of stock I dispensed to clients

e) I would use all of the data I have.

f) If the trend is an increasing one, I order twice as much, and if the trend is a decreasing one, I order half as much.

What Pharmacists Rocher said to correct her:

2. Fill in the tables below for the stock status assessments observed by Muhammed Tall:

Lo-Femenal				
Date	Stock on hand	Consumption this month	Average monthly consumption	Months of stock on hand
November 30, 2000				
December 31, 2000				
January 31, 2001				
February 28, 2001				
March 31, 2001				
April 30 2001				

Overette				
Date	Stock on Hand	Consumption this month	Avg monthly Consumption	Months of stock on hand
November 30, 2000				
December 31, 2000				
January 31, 2001				
February 28, 2001				
March 31, 2001				
April 30, 2001				

Condoms

Date	Stock on Hand	Consumption this month	Avg monthly Consumption	Months of stock on hand
November 30, 2000				
December 31, 2000				
January 31, 2001				
February 28, 2001				
March 31, 2001				
April 30, 2001				

Depo-Provera				
Date	Stock on Hand	Consumption this month	Avg monthly Consumption	Months of stock on hand
November 30, 2000				
December 31, 2000				
January 31, 2001				
February 28, 2001				
March 31, 2001				
April 30, 2001				

To: Acme Chief

From: Muhammed Tall

Reference: Assessing stock status at the Happy Babies Hospital in Greenville

After our visit to the clinic in Smallville, Pharmacist Rocher and I visited the Happy Babies Hospital in Greenville. The Smallville clinic sends its reports to this hospital. At the hospital, we met the hospital's pharmacist, Mrs. Linda Lamaison.

Pharmacist Rocher explained that Mrs. Lamaison supervises eight clinics from the Greenville Hospital. (He also told me that the Center City Hospital supervises 11 clinics, while the Southland Hospital supervises the remaining six.) Because the area around Greenville is more urban, Mrs. Lamaison clinics supervise only 86 of the nearly 300 total community-based volunteers.

Pharmacist Rocher asked Mrs. Lamaison if she could tell us about the stock status within her facilities. She showed us three summary worksheets she had prepared for the previous six months using a computerized spreadsheet: one each for the community-based volunteers, her clinics, and the hospital pharmacy.

I was concerned that it would be difficult for Pharmacist Rocher and Mrs. Lamaison to decide what data to use when assessing stock status. However, Mrs. Lamaison quickly assessed the stock status for all three levels and the entire group. She demonstrated her skills most effectively when she used the consumption data from all levels to assess the hospital storeroom's stock. "After all," she noted, "the hospital storeroom supplies not only our clinic, but all the clinics and volunteers that come for supplies." Her logistics' skills were impressive.

Attached you will find the condom reports she shared with me.

Condom Consumption by Month:

Month	Volunteers	Clinics	Hospital Clinic	TOTAL
November 2000	2,320	1,625	385	4,330
December 2000	2,265	1,645	425	4,335
January 2001	2,410	1,685	430	4,525
February 2001	2,395	1,800	375	4,570
March 2001	2,450	1,815	410	4,675
April 2001	2,390	1,820	410	4,620
TOTAL	14,240	10,390	2,435	27,055

Condom Stock on Hand by Month:

Month	Volunteers	Clinics (incl. hospital)	Hospital Storeroom	TOTAL
November 2000	4,710	4,600	13,300	22,610
December 2000	4,570	4,800	13,200	22,570
January 2001	4,830	4,900	13,400	23,130
February 2001	4,730	5,200	13,500	23,430
March 2001	4,200	5,400	13,200	22,800
April 2001	3,900	5,900	12,300	22,100
TOTAL	26,940	30,800	78,900	136,840

Hospital Condom Issues by Month:

Month	Quantity Issued
November 2000	6,500
December 2000	5,300
January 2001	4,800
February 2001	4,900
March 2001	5,400
April 2001	6,200
TOTAL	33,100

Your Assignment

1. Complete the following table to assess the condom stock status at the end of April. Be sure to use the appropriate data.

Level	Stock on Hand	Average Monthly Consumption	No. of Months of Stock on Hand
Volunteers			
Clinics			
Hospital Storeroom			
Entire Area			

2. Complete the following table, based on your assessment of stock status for each level and the entire area.

Level	Order Interval	Situation: Understocked/ Adequately Stocked/ Overstocked
Volunteers	Monthly	
Clinics	Monthly	
Hospital Storerooms	Quarterly	
Entire Area	Monthly/Quarterly	

3. Which assessment of stock status is preferred— only the stock status of the hospital storeroom or the stock status of the entire area? Why?

Memo # 13

To: Acme Chief

From: Muhhamed Tall

Reference: My initial assessment of Happy Babies

While writing my report for the visit to Happy Babies, I found my initial assessment. I realized that, while I knew something about logistics, I was just learning to be a good consultant. Happy Babies was a very different place then.

The first visit was very confusing. I remember taking a long time to write down what I thought was the purpose of the assessment visit. I am glad that the visit resulted in so many improvements, both for Happy Babies and myself.

My job was easier because some important people at Happy Babies showed their interest in making improvements. This is a quote from my original report:

In my initial assessment, I found the staff at Happy Babies to be very interested in logistics. There are several people at the central offices that want to see more done to improve the logistics system. Dr. Diallo, Dr. Lopez, Dr. Smith, and Dr. Chang all seem to be anxious to see the logistics system improved. I hope they can help us. I visited as many sites as possible, but I am having trouble gathering the information I need. There does not seem to be enough time.

I know now that I would have decided differently how to gather information about the system.

The following sample from my report shows how my consultant skills needed to be strengthened:

The list of questions I developed is not resulting in the answers I need. I rephrased the questions, but people do not always understand. For example, the storerooms at the warehouses are poorly organized. I told one of the hospital pharmacists that he should monitor the shelf life better and pay better attention to his 'maxes' and 'mins.' He did not seem to know what I was saying, and he got upset with me. When I tried to show him what to do, he refused to answer any additional questions. I have collected so much data, but I do not know how to organize it.

With my current consulting skills, this would never happen. And, with my knowledge of logistics, I could easily organize the data.

I also smile when I remember the challenges they had in completing forms at the clinic level. That was an important learning experience for the managers of Happy Babies and me. This is what I said:

I have spent a great deal of time with the clinic nurses and their forms. The forms are very difficult to fill out. Frequently, the nurses do not fill them. I have only seen a few forms, but enough to know that the nurses' math skills are unsatisfactory. Their stock cards do not match what is on the shelves. I have tried to help them, but they do not have time to listen. Their reports have a lot of mistakes. It would be better if they could easily check their math on the forms, but I do not have experience designing forms. I wonder if they are telling me the truth about what is going on. Their answers definitely do not match what I see on their shelves.

I could have written a better initial report if I had used some logistics indicators to describe these problems. For example, I could have said, "Only 60 percent of clinic reports were received by the hospital within five days of the beginning of the following period." I could have used or created other indicators.

Then, I remembered some of the problems at the time. The nurses were discouraged with their jobs. There was a shortage of spare parts for the hospital trucks; supplies were not being delivered. Many community-based volunteers were unable to come to the clinics. Some clinic nurses were able to borrow a motorcycle or get someone in their village to drive them to the hospital to pick up supplies, but the transportation system was not working well. I am glad I included this important information in my report.

The ordering system was very confusing. This is how I described it:

At some of the clinics, the nurses told me that they expect the pharmacist at the hospital to decide the quantity of supplies to send them. But, when I talked to the pharmacist, she told me she expected the clinics to send their reports with their request for supplies. It is not surprising that many clinics have stockouts. When I asked the clinics and hospitals how much stock they should keep, they said they should have enough to last an entire year because purchases are made annually. I was surprised when I heard this, but now I understand why some clinics have so much stock and some have none at all. Volunteers report that they do not understand how or why they receive the quantities

they are issued. In talking to senior Happy Babies managers, I now know they have no system for inventory control.

Some of the problems I cleared up immediately with a little explanation. Some problems required an improved system design and training. As before, if I had used some logistics indicators to describe this situation, I could have helped the managers understand the strengths and weaknesses of their system more clearly.

At the time of the visit, the hospital storerooms were not much better prepared in logistics than the clinics. This is what I said about them at the time:

The hospital storerooms are no better than the clinics. Storage conditions are poor. The storerooms have evidence of rodents, and in one clinic there are old soda bottles lying around. Some of the products are expired, and these are mixed in with the good products. The rooms are dirty, and few items are labeled. Unfortunately, none of the pharmacists have been trained in logistics. They all had some training in how to complete forms, but that's all. However, they do a good job managing the reports. They are able to attach reports from all clinics to their report.

I remember trying to list the problems with the system. Then, I remember writing the recommendations and preparing the implementation plan. I am glad that the managers at Happy Babies were interested in adopting my recommendations, with some modifications that helped my plan fit their scheduling and funding cycles.

While there are still some logistics concerns for Happy Babies, I feel this visit demonstrates that Happy Babies continues to serve its customers well.

YOUR ASSIGNMENT

1. Why did Muhammed assess the logistics system?
2. How could Muhammed have eased his workload?
3. What consulting skills needed improvement during the initial visit?
4. How could Muhammed have organized his data better?
5. How could Muhammed have improved his approach when he interviewed the nurses?
6. What is one indicator Muhammed could have used to describe the problems he encountered with the forms? What steps could he take to solve the problems with the forms?
7. Was Muhammed's memory about the shortage of spare parts and transportation challenges important? How?
8. Muhammed noted that for the problems he encountered, there were two solutions, one of them short-term. What was the problem and how was he able to easily correct it? What was the second problem that needed a long-term solution?
9. What is one indicator Muhammed could have used to describe the inventory control problems he encountered?
10. How could the hospital pharmacists improve storeroom conditions?
11. What were the major problems Muhammed identified for Happy Babies?
12. For the two most important problems, make recommendations. Be sure to include all the elements of a proper recommendation (define or state the problem, state the consequences of the problem, etc.).
13. Create an implementation plan to correct the problem that staff cannot complete the forms, and the forms may be inappropriately designed. Begin by writing the problem statement and a recommendation. Be sure to include all of the elements of a proper implementation plan (list the activity to be undertaken, give an indicator/measurement of completion/ success, etc.).
14. Describe Muhammed's role in providing assistance. What skills did he use? What could Muhammed have done differently in this assessment?

Case Study
Contract No. PREV-12
Between PREVENT Program and Kobe Company

This Contract made on August 1, 2011 between the PREVENT Program, 122 Serikhan Street, Baghdad, Iraq (hereinafter called "the Purchaser") on the one part, and Kobe Company, Hobuku Dr, Seoul, Korea, on the second part.

Whereas the Prevent Program has negotiated for certain Goods and Related Services, viz., Male Latex Condoms, and has accepted a quote from the Supplier for the Supply of those Goods and Related Services in the sum of US\$ 45,000 (Forty five thousand United States Dollars)(hereinafter called the "Contract Price").

Now this contract Witnesseth as follows:

1. In this Contract, words and expressions shall have the same meanings as a respectively assigned to them in the Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Contract, viz:
 - a. the Schedule of Requirements
 - b. the General Conditions of Contract
 - c. the Special Conditions of Contract.
3. In consideration of the payments to be made by the Purchaser to the Supplier as indicated in this Contract, the Supplier hereby covenants with the Purchaser to provide the Goods and Related Services and to remedy defects therein in conformity in all respects with the provisions of the contract.
4. The Purchaser hereby covenants to pay the Supplier on consideration of the provision of the Goods and Related Services and remedying of defects therein, the Contract Price or such sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties thereto have caused the Contract to be executed in accordance with the laws specified in the Special Conditions of the Contract on the day, month and year indicated above.

Name: _____

Signature: _____

In the capacity of Director of PREVENT Program

Name: _____

Signature: _____

Witness for PREVENT Program

Name: _____

Signature: _____

In the capacity of Managing Director for Kobe Company

Name: _____

Signature: _____

Witness for Supplier _____

Case Study

Reference: Contract PREV-12
Kobe Company

Schedule of Requirements

Item Description	Total Requirements	Price Offered USD	Total Contract Value USD	Amount Year 1
Male Latex Condom	900,000	0.05	45,000.00	900,000

General Conditions of Contract

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General Conditions of Contract

1. Definitions

- 1.1 In this Contract, the following terms shall be interpreted as indicated:
- (a) “The Contract” means the agreement entered into between the Purchaser and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
 - (b) “The Contract Price” means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.
 - (c) “Day” means calendar day.
 - (d) “Effective Date” means the date on which this Contract becomes effective pursuant to GCC Clause 6.2.
 - (e) “Eligible Country” means the countries and territories eligible for participation in procurements financed by the World Bank as defined in the *Guidelines: Procurement under IBRD Loans and IDA Credits*.
 - (f) “End User” means the organization(s) where the goods will be used, as **named in the SCC**.
 - (g) “GCC” means the General Conditions of Contract contained in this section.
 - (h) “The Goods” means all of the pharmaceuticals including nutritional supplement and oral and injectable forms of contraception, vaccines, and condoms that the Supplier is required to supply to the Purchaser under the Contract.
 - (i) “The Purchaser” means the organization purchasing the Goods, as **named in the SCC**.
 - (j) “The Purchaser’s country” is the country **named in the SCC**.
 - (k) “Registration Certificate” means the certificate of registration or other documents in lieu thereof establishing that the Goods supplied under the Contract are registered for use in the Purchaser’s country in accordance with the Applicable Law.
 - (l) “SCC” means the Special Conditions of Contract.

- (m) “The Services” means those services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as provision of technical assistance, training, and other such obligations of the Supplier covered under the Contract.
- (n) “The Site,” where applicable, means the place or places **named in the SCC.**
- (o) “The Supplier” means the individual or firm supplying the Goods and Services under this Contract, as **named in the SCC.**
- (p) “The World Bank” means the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA).

- | | | |
|---|-----|---|
| 2. Application | 2.1 | These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract. |
| 3. Country of Origin | 3.1 | All Goods and Services supplied under the Contract shall have their origin in the countries and territories eligible under the rules of the World Bank, as further elaborated in the SCC. |
| | 3.2 | For purposes of this Clause, “origin” means the place where the Goods were mined, grown, or produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components. |
| | 3.3 | The origin of Goods and Services is distinct from the nationality of the Supplier. |
| 4. Standards | 4.1 | The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods’ country of origin. Such standards shall be the latest issued by the concerned institution. |
| 5. Use of Contract Documents and Information; Inspection and Audit by the Bank | 5.1 | The Supplier shall not, without the Purchaser’s prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in the performance of the Contract. Disclosure to any such employed person shall be made in |

confidence and shall extend only so far as may be necessary for purposes of such performance.

- 5.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated in GCC Sub-Clause 5.1 except for purposes of performing the Contract.
- 5.3 Any document, other than the Contract itself, enumerated in GCC Sub-Clause 5.1 shall remain the property of the Purchaser and shall be returned (all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.
- 5.4 The Supplier shall permit the Bank to inspect the Supplier's accounts and records relating to the performance of the Contract and to have them audited by auditors appointed by the Bank, if so required by the Bank.

6. Certification of Goods in Accordance with Laws of the Purchaser's Country

- 6.1 If required under the Applicable Law, Goods supplied under the Contract shall be registered for use in the Purchaser's country. The Purchaser undertakes to cooperate with the Supplier to facilitate registration of the Goods for use in the Purchaser's country.
- 6.2 Unless otherwise **specified in the SCC**, the Contract shall become effective on the date ("the Effective Date") that the Supplier receives written notification from the relevant authority in the Purchaser's country that the Goods have been registered for use in the Purchaser's country.
- 6.3 If thirty (30) days, or such longer period **specified in the SCC**, elapse from the date of Contract signing and the Contract has not become effective pursuant to Sub-Clause 6.2 above, then either party may, by not less than seven (7) days' written notice to the other party, declare this Contract null and void. In such event, the Supplier's performance security shall be promptly returned.

7. Patent Rights

- 7.1 The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof in the Purchaser's country.

8. Performance Security

- 8.1 Within twenty-eight (28) days of receipt of the notification of Contract award, the successful Bidder shall furnish to the Purchaser the performance security in the amount **specified in the SCC**.
- 8.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the

Contract.

8.3 The performance security shall be denominated in the currency of the Contract, or in a freely convertible currency acceptable to the Purchaser, and shall be in one of the following forms:

- (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the Purchaser's country or abroad, acceptable to the Purchaser, in the format provided in the Bidding Documents or another format acceptable to the Purchaser; or
- (b) a cashier's or certified check.

8.4 The performance security will be discharged by the Purchaser and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless **specified otherwise in the SCC**.

9. Inspections and Tests

9.1 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications. The **SCC** and the Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

- (a) Said inspection and testing is for the Purchaser's account. In the event that inspection and testing is required prior to dispatch, the Goods shall not be shipped unless a satisfactory inspection and quality control report has been issued in respect of those Goods.
- (b) The Supplier may have an independent quality test conducted on a batch ready for shipment. The cost of such tests will be borne by the Supplier.
- (c) Upon receipt of the Goods at place of final destination, the Purchaser's representative shall inspect the Goods or part of the Goods to ensure that they conform to the condition of the Contract and advise the Purchaser that the Goods were received in apparent good order. The Purchaser will issue an Acceptance Certificate to the Supplier in respect of such Goods (or part of Goods). The Acceptance Certificate shall be issued within ten (10) days of receipt of the Goods or part of Goods at place of final destination.

9.2 Where the Supplier contests the validity of the rejection by

the Purchaser or his representative, of any inspection as required by 9.1 above conducted before shipment or at ultimate destination, whether based on product or packing grounds, a sample drawn jointly by the Supplier and Purchaser or his or her representative and authenticated by both, will be forwarded for umpire analysis within four weeks of the time the Supplier contests to an independent agency mutually agreed by the Purchaser and Supplier. The umpire's finding, which will be promptly obtained, will be final and binding on both parties. The cost of umpire analysis will be borne by the losing party.

10. Packing

- 10.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt, and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- 10.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, **specified in the SCC** or Technical Specifications, and in any subsequent instructions ordered by the Purchaser.

11. Delivery and Documents

- 11.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. The details of shipping and/or other documents to be furnished by the Supplier are **specified in the SCC**.
- 11.2 For purposes of the Contract, "EXW," "FOB," "FCA," "CIF," "CIP," and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of *Incoterms* published by the International Chamber of Commerce, Paris.
- 11.3 Documents to be submitted by the Supplier are **specified in the SCC**. *Incoterms* provides a set of international rules for the interpretation of the more commonly used trade terms.

12. Insurance

- 12.1 The Goods supplied under the Contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery in the manner **specified in the SCC**.

- 12.2 Where delivery of the Goods is required by the Purchaser on a CIF or CIP basis, the Supplier shall arrange and pay for cargo insurance, naming the Purchaser as beneficiary. Where delivery is on an FOB or FCA basis, insurance shall be the responsibility of the Purchaser.

13. Transportation

- 13.1 Where the Supplier is required under Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 13.2 Where the Supplier is required under Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 13.3 Where the Supplier is required under the Contract to transport the Goods to a specified place of destination within the Purchaser's country, defined as the Site, transport to such place of destination in the Purchaser's country, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price.
- 13.4 Where the Supplier is required under Contract to deliver the Goods CIF or CIP, no restriction shall be placed on the choice of carrier. Where the Supplier is required under Contract (a) to deliver the Goods FOB or FCA, and (b) to arrange on behalf and at the expense of the Purchaser for international transportation on specified carriers or on national flag carriers of the Purchaser's country, the Supplier may arrange for such transportation on alternative carriers if the specified or national flag carriers are not available to transport the Goods within the period(s) specified in the Contract.

14. Incidental Services

- 14.1 The Supplier shall provide such incidental services, if any, as are **specified in the SCC**.
- 14.2 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for

similar services.

15. Warranty

- 15.1 All goods must be of fresh manufacture and must bear the dates of manufacture and expiry.

The Supplier further warrants that all Goods supplied under the Contract will have remaining a minimum of five-sixths (5/6) of the specified shelf life upon delivery at port/airport of entry for goods with a shelf life of more than two years and three-fourths (3/4) for goods with a shelf life of two years or less, unless otherwise **specified in the SCC**; have “overages” within the ranges set forth in the Technical Specifications, where applicable; are not subject to recall by the applicable regulatory authority due to unacceptable quality or an adverse drug reaction; and in every other respect will fully comply in all respects with the Technical Specifications and with the conditions laid down in the Contract.

- 15.2 The Purchaser shall have the right to make claims under the above warranty for three months after the Goods have been delivered to the final destination indicated in the Contract. Upon receipt of a written notice from the Purchaser, the Supplier shall, with all reasonable speed, replace the defective Goods without cost to the Purchaser. The Supplier will be entitled to remove, at his own risk and cost, the defective Goods once the replacement Goods have been delivered.
- 15.3 In the event of a dispute by the Supplier, a counteranalysis will be carried out on the manufacturer’s retained samples by an independent neutral laboratory agreed by both the Purchaser and the Supplier. If the counteranalysis confirms the defect, the cost of such analysis will be borne by the Supplier as well as the replacement and disposal of the defective goods. In the event of the independent analysis confirming the quality of the product, the Purchaser will meet all costs for such analysis.
- 15.4 If, after being notified that the defect has been confirmed pursuant to GCC Sub-Clause 15.2 above, the Supplier fails to replace the defective Goods within the period **specified in the SCC**, the Purchaser may proceed to take such remedial action as may be necessary, including removal and disposal, at the Supplier’s risk and expense and without prejudice to any other rights that the Purchaser may have against the Supplier under the Contract. The Purchaser will also be entitled to claim for storage in respect of the defective Goods for the period following notification and deduct the sum from payments due to the Supplier under this Contract.
- 15.5 *Recalls.* In the event any of the Goods are recalled, the Supplier shall notify the Purchaser within fourteen (14) days,

providing full details of the reason for the recall and promptly replace, at its own cost, the items covered by the recall with Goods that fully meet the requirements of the Technical Specification and arrange for collection or destruction of any defective Goods. If the Supplier fails to fulfill its recall obligation promptly, the Purchaser will, at the Supplier's expense, carry out the recall.

16. Payment

- 16.1 The method and conditions of payment to be made to the Supplier under this Contract shall be **specified in the SCC**.
- 16.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed, and by documents submitted pursuant to GCC Clause 11, and upon fulfillment of other obligations stipulated in the Contract.
- 16.3 Payments shall be made promptly by the Purchaser, but in no case later than sixty (60) days after submission of an invoice or claim by the Supplier.
- 16.4 The currency or currencies in which payment is made to the Supplier under this Contract shall be **specified in the SCC** subject to the following general principle: Payment will be made in the currency or currencies in which the payment has been requested in the Supplier's bid.
- 16.5 All payments shall be made in the currency or currencies specified in the SCC pursuant to GCC 16.4.

17. Prices

- 17.1 Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments **authorized in the SCC** or in the Purchaser's request for bid validity extension, as the case may be.

18. Change Orders

- 18.1 The Purchaser may at any time, by a written order given to the Supplier pursuant to GCC Clause 31, make changes within the general scope of the Contract in any one or more of the following:
 - (a) specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
 - (b) the method of shipment or packing;
 - (c) the place of delivery; and/or
 - (d) the Services to be provided by the Supplier.

18.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Purchaser's change order.

19. Contract Amendments

19.1 Subject to GCC Clause 18, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

20. Assignment

20.1 The Supplier shall not assign, in whole or in part, its obligations to perform under this Contract, except with the Purchaser's prior written consent.

21. Delays in the Supplier's Performance

21.1 Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by the Purchaser in the Schedule of Requirements.

21.2 If at any time during performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration, and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.

21.3 Except as provided under GCC Clause 24, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of liquidated damages.

22. Liquidated Damages

22.1 Subject to GCC Clause 24, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage **specified in the SCC** of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage **specified in the SCC**. Once the maximum is reached, the Purchaser may consider termination of the

Contract pursuant to GCC Clause 23.

23. Termination for Default

- 23.1 The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part:
- (a) if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 21; or
 - (b) if the Goods do not meet the Technical Specifications stated in the Contract; or
 - (c) if the Supplier fails to provide any registration or other certificates in respect of the Goods within the time specified in the Special Conditions.
 - (d) if the Supplier, in the judgment of the Purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this clause:

“corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in Contract execution.

“fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a Contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial noncompetitive levels and to deprive the Borrower of the benefits of free and open competition.

- (e) if the Supplier fails to perform any other obligation(s) under the Contract.

- 23.2 In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 23.1, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

24. Force Majeure

- 24.1 Notwithstanding the provisions of GCC Clauses 21, 22, and 23, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for

default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

24.2 For purposes of this clause, “Force Majeure” means an event beyond the control of the Supplier and not involving the Supplier’s fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

24.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

25. Termination for Insolvency

25.1 The Purchaser may at any time terminate the Contract by giving written notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

26. Termination for Convenience

26.1 The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser’s convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

26.2 The Goods that are complete and ready for shipment within thirty (30) days after the Supplier’s receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

- (a) to have any portion completed and delivered at the Contract terms and prices; and/or
- (b) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Services and for materials and parts previously procured by the Supplier.

27. Settlement of

27.1 If any dispute or difference of any kind whatsoever shall

Disputes

arise between the Purchaser and the Supplier in connection with or arising out of the Contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.

27.2.1 Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

27.2.2 Arbitration proceedings shall be conducted in accordance with the rules of procedure **specified in the SCC**.

27.3 Notwithstanding any reference to arbitration herein,

- (a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- (b) the Purchaser shall pay the Supplier any monies due the Supplier.

28. Limitation of Liability

28.1 Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 7,

- (a) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser and
- (b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing Language

29.1 The Contract shall be written in the language **specified in the SCC**. Subject to GCC Clause 30, the version of the Contract written in the specified language shall govern its interpretation. All correspondence and other documents pertaining to the Contract that are exchanged by the parties

shall be written in the same language.

- 30. Applicable Law** 30.1 The Contract shall be interpreted in accordance with the laws of the Purchaser's country, unless otherwise **specified in the SCC**.
- 31. Notices** 31.1 Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or by cable, telex, or facsimile and confirmed in writing to the other party's address **specified in the SCC**.
- 31.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.
- 32. Taxes and Duties** 32.1 A Supplier supplying Goods from abroad shall be entirely responsible for all taxes, stamp, duties, license fees, and other such levies imposed outside the Purchaser's country.
- 32.2 A Supplier supplying Goods offered locally shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.

Special Conditions of Contract

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	Vaccines	Error! Bookmark not defined.
11.	Delivery and Documents (GCC Clause 11) ..	Error! Bookmark not defined.
15.	Warranty (GCC Clause 15)	Error! Bookmark not defined.

Special Conditions of Contract

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

1. Definitions (GCC Clause 1)

GCC 1.1 (g)	The Purchaser is: PREVENT Program
GCC 1.1 (h)	The Purchaser's country is: Iraq
GCC 1.1 (i)	The Supplier is: Kobe Company
GCC 1.1 (k)	The Site is: Prevent Program, Tehran, Iraq
GCC 1.1 (m)	The end user is: Social Marketing Program of Iraq

2. Application (GCC Clause 2)

GCC 2	There are no Special Conditions of Contract applicable to GCC Clause 2.
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3. Country of Origin (GCC Clause 3)

GCC 3.1	The Bank maintains a list of countries whose Bidders, Goods, and Services are not eligible to participate in procurement financed by the Bank. This list is updated regularly, and it is available from the Public Information Center of the World Bank. A copy of this list is contained in the section of the Bidding Documents entitled “Eligibility for the Provisions of Goods, Works, and Services in Bank-Financed Procurement.”
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4. Standards (GCC Clause 4)

GCC 4	There are no Special Conditions of Contract applicable to GCC Clause 4.
-------	--

5. Use of Contract Documents and Information (GCC Clause 5)

GCC 5	There are no Special Conditions of Contract applicable to GCC Clause 5.
-------	--

6. Certification of Goods in Accordance with Laws of the Purchaser’s Country (GCC Clause 6)

GCC 6.1	Details of registration and other certification necessary to prove registration in Purchaser’s country.
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GCC 6.2	The Effective Date of the Contract is: date of Contract signing if (i) the Goods have already been registered at the time of Contracting signing OR (ii) registration of the Goods is not a requirement under the Applicable Law.
---------	--

GCC 6.3	There are no Special Conditions of Contract applicable to GCC Clause 6.3.
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7. Patent Rights (GCC Clause 7)

GCC 7	There are no Special Conditions of Contract applicable to GCC Clause 7.
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8. Performance Security (GCC Clause 8)

GCC 8.1	There are no Special Conditions of Contract applicable to GCC Clause 8.1.
---------	--

GCC 8.4	There are no Special Conditions of Contract applicable to GCC Clause 8.4.
9. Inspections and Tests (GCC Clause 9)	
GCC 9.1	<p>Depending on the nature of the products, inspection tests by purchaser's nominated agent, Intertek Testing Services, may be required for pre-delivery inspection.</p> <p>All medical products will be subject to quality and compliance tests by the National Regulatory Control Laboratory of Iraq before release for use and acceptance will be subject to products passing these tests.</p>
10. Packing (GCC Clause 10)	
GCC 10.2	There are no additional packing instructions other than those specified for particular products in the specifications.
11. Delivery and Documents (GCC Clause 11)	
GCC 11.1 & 11.3	<p><i>For Goods supplied from abroad:</i></p> <p>Upon shipment, the Supplier shall notify the Purchaser and the insurance company in writing the full details of the shipment including Contract number, description of the Goods, quantity, date and place of shipment, mode of transportation, and estimated date of arrival at place of destination. In the event of Goods sent by airfreight, the Supplier shall notify the Purchaser a minimum of forty-eight (48) hours ahead of dispatch, the name of the carrier, the flight number, the expected time of arrival, and the waybill number. The Supplier shall fax and then send by courier the following documents to the Purchaser, with a copy to the insurance company:</p> <ul style="list-style-type: none"> (i) three originals and two copies of the Supplier's invoice, showing Purchaser as PREVENT Program; the Contract number, loan number, Goods description, quantity, unit price, and total amount. Invoices must be signed in original, stamped, or sealed with the company stamp/seal; (ii) one original and two copies of the negotiable, clean, on-board through bill of lading marked "freight prepaid" and showing Purchaser as PREVENT Program and Notify Party as stated in the Contract, with delivery through to final destination as per the Schedule of Requirements and two copies of non-negotiable bill of lading, or three copies of railway consignment note, road consignment note, truck or air waybill, or multimodal transport document, marked

“freight prepaid” and showing delivery through to final destination as per the Schedule of Requirements;

- (iii) four copies of the packing list identifying contents of each package;
- (iv) copy of the Insurance Certificate, showing the Purchaser as the beneficiary;
- (v) one original of the manufacturer’s or Supplier’s Warranty Certificate covering all items supplied;
- (vi) original copy of the Certificate of Inspection furnished to Supplier by the nominated inspection agency and six copies (where inspection is required);
- (vii) any other procurement-specific documents required for delivery/payment purposes.

For Goods from within the Purchaser’s country:

Upon or before delivery of the Goods, the Supplier shall notify the Purchaser in writing and deliver the following documents to the Purchaser:

- (i) two originals and two copies of the Supplier’s invoice, showing Purchaser, the Contract number, loan number; Goods’ description, quantity, unit price, and total amount. Invoices must be signed in original and stamped or sealed with the company stamp/seal;
- (ii) two copies of delivery note, railway consignment note, road consignment note, truck or air waybill, or multimodal transport document showing Purchaser as **PREVENT Program** and delivery through to final destination as stated in the Contract;
- (iii) copy of the Insurance Certificate, showing the Purchaser as the beneficiary;
- (iv) four copies of the packing list identifying contents of each package;
- (v) one original of the manufacturer’s or Supplier’s Warranty certificate covering all items supplied;
- (vi) original copy of the Certificate of Inspection furnished to Supplier by the nominated inspection agency and six copies (where inspection is required)
- (vii) other procurement-specific documents required for delivery/payment purposes.

Note: In the event that the documents presented by the Supplier

	are not in accordance with the Contract, then payment will be made against issue of the Acceptance Certificate, to be issued in accordance with SCC 9 (GCC 9) above.
12. Insurance (GCC Clause 12)	
GCC 12.1	The insurance shall be in an amount equal to 110 percent of the CIF or CIP value of the Goods from “warehouse” to “warehouse” on “All Risks” basis, including war risks and strikes
13. Transportation (GCC Clause 13)	
GCC 13	There are no Special Conditions of Contract applicable to GCC Clause 13

14. Incidental Services (GCC Clause 14)

GCC 14.1

Incidental services to be provided are:

[Sample clauses]

- (a) The Supplier shall provide all necessary licenses and permissions for use of the Goods in the Purchaser's country that may be required for the Goods. The cost shall be deemed included in the Contract Price.
- (b) The Supplier shall provide such other services as are stated in the Technical Specifications

15. Warranty (GCC Clause 15)

GCC 15.1

There are no Special Conditions of Contract applicable to GCC Clause 15.

GCC 15.4

The period for the replacement of defective goods is: **30 days**

16. Payment (GCC Clause 16)

GCC 16.1 & 16.4

The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:

Payment for Goods supplied from abroad:

Payment of foreign currency portion shall be made in **currency of the Contract Price** in the following manner:

- (i) **Advance Payment:** Twenty (20) percent of the Contract Price shall be paid within thirty (30) days of signature of Contract and upon submission of an invoice showing Purchaser's name; the Contract number, loan number; description of payment and total amount, signed in original, stamped or sealed with the company stamp/seal.
- (ii) **On Acceptance:** Eighty (80) percent of the Contract Price of Goods received shall be paid within thirty (30) days of receipt of the Goods upon submission of an invoice (showing Purchaser's name; the Contract number, loan number; description of payment and total amount, signed in original, stamped or sealed with the company stamp/seal) supported by the Acceptance Certificate issued by the Purchaser.

Payment of local currency portion shall be made in **Iraqi Dinars** within thirty (30) days of presentation of an invoice (showing Purchaser's name; the Contract number, loan number;

	<p>description of payment and total amount, signed in original, stamped or sealed with the company stamp/seal) supported by the Acceptance Certificate issued by the Purchaser.</p> <p>Payment for Goods and Services supplied from within the Purchaser's country:</p> <p>Payment for Goods and Services supplied from within the Purchaser's country shall be made in Iraqi Dinars, as follows:</p> <ul style="list-style-type: none"> (i) Advance Payment: Twenty (20) percent of the Contract Price shall be paid within thirty (30) days of signature of Contract and upon submission of an invoice showing Purchaser's name; the Contract number, loan number; description of payment and total amount, signed in original, stamped or sealed with the company stamp/seal. . (ii) On Acceptance: Eighty (80) percent of the Contract Price of Goods received shall be paid within thirty (30) days of receipt of the Goods upon submission of an invoice (showing Purchaser's name; the Contract number, loan number; description of payment and total amount, signed in original, stamped or sealed with the company stamp/seal) supported by the Acceptance Certificate issued by the Purchaser.
17. Prices (GCC Clause 17)	
GCC 17.1	Prices shall be fixed and firm for the duration of the Contract.
18. Change Orders (GCC Clause 18)	
GCC 18	There are no Special Conditions of Contract applicable to GCC 18.
19. Contract Amendments (GCC Clause 19)	
GCC 19	There are no Special Conditions of Contract applicable to GCC 19
20. Assignment (GCC Clause 20)	
GCC 20	There are no Special Conditions of Contract applicable to GCC 20

21. Delays in the Supplier's Performance (GCC Clause 21)	
GCC 21	There are no Special Conditions of Contract applicable to GCC 21
22. Liquidated Damages (GCC Clause 22)	
GCC 22.1	Rate of Liquidated Damages: one-half (0.5) percent per week, Maximum deduction: ten (10) percent of the Contract Price
23. Termination for Default (GCC Clause 23)	
GCC 23	There are no Special Conditions of Contract applicable to GCC 23
24. Force Majeure (GCC Clause 24)	
GCC 24	There are no Special Conditions of Contract applicable to GCC 24
25. Termination for Insolvency (GCC Clause 25)	
GCC 25	There are no Special Conditions of Contract applicable to GCC 25
26. Termination for Convenience (GCC Clause 26)	
GCC 26	There are no Special Conditions of Contract applicable to GCC 26
27. Settlement of Disputes (GCC Clause 27)	
GCC 27.2.2	<p>The dispute resolution mechanism to be applied pursuant to GCC Sub-Clause 27.2.2 shall be as follows:</p> <p>(a) <i>Contracts with foreign Supplier:</i></p> <p>GCC 27.2.2 (a)–Any dispute, controversy, or claim arising out of or relating to this Contract, or breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force.</p> <p>(b) <i>Contracts with Supplier national of the Purchaser's country:</i></p>

	In the case of a dispute between the Purchaser and a Supplier who is a national of the Purchaser's country, the dispute shall be referred to adjudication or arbitration in accordance with the laws of the Purchaser's country.
28. Limitation of Liability (GCC Clause 28)	
GCC 28	There are no Special Conditions of Contract applicable to GCC 28
29. Governing Language (GCC Clause 29)	
GCC 29.1	English
30. Applicable Law (GCC Clause 30)	
GCC 30.1	The Contract shall be interpreted in accordance with the laws of the: Republic of Iraq
31. Notices (GCC Clause 31)	
GCC 31.1	Purchaser: PREVENT Program 122 Toushat Street Tehran, Iraq Supplier: Kobe Company 37 Hobuku Drive Seoul, Korea
32. Taxes and Duties (GCC Clause 32)	
GCC 32	There are no Special Conditions of Contract applicable to GCC 32

Session 14, Procurement, End of Activity 2, covering Slides 36-67

CHEATERS' QUIZ

There aren't many rules about a "Cheaters' Quiz," except that you must cheat. First try to answer the questions on your own. It is true that much of the information in this session is not for memorization, but it is important to know where to find the information in the reference materials you now have, such as the Contraceptive Procurement Manual. Consult it as needed.

When you have written your own answers, find a colleague with whom you can “cheat” so that you and the colleague get as close as possible to perfect scores. You need not put your name on this paper. It is not to hand in. Your lecturer will review the final answers with you.

1. If there is a pre-bid conference, who may attend? Tick one or more answers.

- ☐ Interested journalists and reporters
- ☐ Anybody who is a prospective bidder
- ☐ Only those who have registered for the pre-bid conference
- ☐ Only those who have both bought the packet, if required, and registered

2. Which are true duties of the BEC? Tick one or more answers.

- ☐ Read all the bids before the bid opening meeting
- ☐ Open all the bids whenever the bids come in.
- ☐ Use a bid opening form or check list.
- ☐ Provide more information to bidders whenever they might request it.
- ☐ Evaluate bids and collaborate closely with a TEC, which is usually a subcommittee

3. What is a bid security? Who gives it to whom? _____

4. Who does which? Write BEC or TEC before each item below.

- ☐ Makes a recommendation for a contract award
- ☐ Checks on the technical specifications and quality
- ☐ Determines if a bid is “substantially responsive.”

5. Which of these forms or examples can be found in the **Contraceptive Procurement Manual**?

- | | |
|--|--|
| <input type="checkbox"/> Preliminary Evaluation Tool | <input type="checkbox"/> Samples of patient insert documents |
| <input type="checkbox"/> Checklist for Compliance | <input type="checkbox"/> Technical Evaluation Sub-Schedule |
| <input type="checkbox"/> Financial Evaluation Forms | <input type="checkbox"/> Bid Evaluation Report |
| <input type="checkbox"/> Notification of Acceptance | <input type="checkbox"/> Verification Checklist |

(Continued Next Page)

6. Which of the items below are samples of material or major deviations? If you can, add an example of your own to the list.

- ☐ Manufacturer is new and has no previous successful bids
- ☐ Manufacturer does not provide warranty or equivalent
- ☐ No list of sources of raw materials for product is included
- ☐ Requested quantity is not provided
- ☐ Manufacturer has lost out on bids in early attempts
- ☐ Product does not meet regulatory or registration requirements
- ☐ Product does not meet specification requirements

Your own example: _____

7. Number the following eight steps in the chronological order in which they should ordinarily occur. (Note that until a person has considerable experience, it would probably be necessary to use reference works to address this with certainty.)
- _____ Identify substantially responsive bids
 - _____ Select lowest evaluated contract bidder
 - _____ Do financial evaluation
 - _____ Make initial payment to the supplier
 - _____ Inform unsuccessful bidders that their bids were not accepted
 - _____ Get signatures and performance security from the winning bidder
 - _____ Get the relevant governing authority to sign the contract
 - _____ Issue notification of acceptance to the successful bidder
8. Write True or False before the statements below. Be ready to defend your answer.
- _____ Qualification may take place either before or after bidding starts
 - _____ The winning bidder and losing bidders should all be notified at the same time
 - _____ The Bid Evaluation Report can help defend against protests from unsuccessful bidders.
 - _____ In procurement for public health commodities, even experienced professionals may need to consult reference documents from time to time.
9. What is a common role of a commercial bank in finalizing a contract of this sort?
- _____

Session 14, Activity 3 Sample Performance Monitoring Checklist

Monitoring Indicator	# Compliant	# Noncompliant	Percent Compliant	Information/Comments
Supplier Deliveries				
Shipments delivered on time in compliance with contract delivery requirements.				
Adherence to Delivery Instructions				
Shipments arrived at port stipulated in contract.				
Correct quantity delivered per the contract.				
Shipments arrived under proper shipping conditions (shipped under proper temperature conditions if required).				
Provision of Documents				
Supplier provided advance copies of documents according to contract terms.				
Shipments arrived with all required documents correctly and completely filled				
Packing and Labeling				
Supplier shipped correct package size.				
Shipments with primary packages				

labeled correctly.				
Shipments with shipping cartons labeled correctly.				
Packaging Materials				
Shipments with external packaging sufficiently rugged to ensure arrival in-country in good condition				
Technical Specifications				
Products meet all specification requirements.				
Products pass visual inspection.				
Products pass quality assurance testing.				
Shipments with requested quality assurance documentation, such as Certificate of Analysis.				
Product Shelf Life				
Products shipped with a shelf life greater than or equal to that called for in the contract.				
Compliance With Contract Financial Terms				
Invoices comply with contract pricing terms.				
Shipments insured and shipped according to contract INCOTERMS				

Session 14 Procurement, Activity 3 Sample Supplier Performance Scorecard

Supplier Name: _____ Contract Number: _____

Month: _____

DELIVERY	Numerator	Denominator	Score (%)
	# of on-time shipments	Total shipments	
1. Percentage of shipments delivered on time	88	100	88.0%
	# of full shipments	Total shipments	
2. Percentage of shipments fully delivered	88	100	88.0%
	# with adequate documents	Total shipments	
3. Percentage of shipments with adequate documents received on time	95	100	95.0%
QUALITY			
	# of products with correct package size and quantity	Total # of products	
4. Percentage of products with correct package size and quantity	192	200	96.0%
	# of products undamaged	Total # of products	
5. Percentage of products received undamaged due to adequate packaging	194	200	97.0%
	# of products passed	Total # of products	
6. Percentage of products that passed quality control testing	198	200	99.0%
	# of products in compliance	Total # of products	
7. Percentage of products that comply with shelf-life requirements	188	200	94.0%
CUSTOMER SERVICE			
	# of correct invoices	Total # of invoices	
8. Percentage of invoices that comply with contract pricing and terms	97	100	97.0%
SUPPLIER RATING			94.25%

Discussion Guide for Session 14, Activity 3

For ten minutes you will work in groups of four or five to discuss the five key topics listed below from Activity 3 and the recent slides you studied.

Choose a person who will offer some brief and informal comments on your group discussion, if the lecturer calls on your group.

The brief and informal report could mention points such as some of these:

- Which topic caused the most discussion or disagreement?
- Which was the least clear to the group, technically speaking?
- Which topics were well documented in the reference works?
- Was there some other interesting point of comment that came up in your group?

Here are the discussion topics from Activity 3:

1. The advantages of Performance Monitoring
2. Tasks for Warehouse Staff
3. Documents for Customs Clearance
4. Three Basic Levels of Pre-Shipment Compliance
5. Identification of Contract Performance Indicators

Pre- shipping Documents Analysis

Pictorial evident regarding Pre-shipping documents, which is a mandatory requirement to get the Importation waiver from relevant ministries considering the freight forwarder handle the challenging amount of documentation that exporting requires; freight forwarders are specialists in this process. The following documents are commonly used in exporting; which of them are actually used in each case depends on the requirements of both our government and the government of the importing country.

1. Commercial invoice
2. Bill of lading or Airway Bill
3. Commercial invoice
4. Certificate of origin
5. Certificate of Conformance or certificate of Analysis

6. Certificate of pharmaceutical Product or Free Sale certificate
7. Insurance certificate
8. Packing list

WeBOC (Web based one Custom) mandatory tool for custom clearance.

WeBOC is a one-window system. One can enter into the portal of WeBOC by clicking on the link www.weboc.gov.pk and carry out all his activities related to Customs from anywhere in Pakistan. All one requires is a User ID, a computer and an Internet connection. The business community can avail the services of WeBOC 24 hours a day and seven days a week. WeBOC is an interactive system and works in a completely paperless manner. In case an assessment or examination is required on some occasion, the same are done online and each operation is also reported to the trader online. It is important to mention here that examinations are done by the Customs with the assistance of the Terminal Operators and at no stage the importers/exporters or their clearing agents are required to come to the Port, as was the case previously. Similarly the traders or their agents are not required to come to Customs House for the processing of documents which was a norm in the erstwhile manual system.

Don't forget to select a person in your group who will make a few comments if the lecturer calls on your group.

Discussion Guide for Group Work

Session 14, Activity 4 (end of session)

As we saw in the recent presentation there are many challenges encountered in the procurement process. The purpose of this discussion period is to better understand better the challenges the procurement system faces and to identify realistic ways that some of the problems can be dealt with, even if only partly and even if years of work are needed.

Seven major procurement challenges were identified in this last presentation. These challenges and a question to be addressed by the group assigned that challenge are listed below. We will divide the students into seven groups and each group will be assigned to review one of the procurement challenges and identify possible solutions to that challenge.

Take ten minutes to discuss your assigned challenge with your group members. Remember to select a spokesperson in your group who will informally and briefly present up to a half dozen interesting points that came up in your group discussion.

Note the challenges have been placed in larger font in case the lecturer wants to cut them out and pass them out to the individual groups.

1. Challenge: Accurate quantification data

Accurate quantification data is essential for ensuring the procurement process procures the correct quantity of commodities that will best support the program's needs.

Question:

What can be done to help ensure that the procurement unit receives accurate and timely quantification data to support an effective procurement process?

2. Challenge: Accurate and complete product specifications.

Product technical specifications are important for the procurement process because they provide detailed information to the bidder about the goods to be supplied and form the basis for contract obligations.

Question:

What can be done to help ensure that the procurement unit receives accurate and complete product technical specifications to support an effective procurement process?

3. Challenge: Lengthy procurement process.

There are many steps in the procurement process, from preparing bidding documents and issuing bids, to opening and evaluating bids, selecting a supplier, and awarding a contract. It can be a long process that can take considerable time.

Question:

What measures can be taken to try to shorten and streamline the procurement process?

4. Challenge: Limited human resource capacity

In many countries there is a shortage of trained procurement personnel and an overall lack of a professional group of procurement staff.

Question:

What can be done to strengthen the capacity of procurement personnel to conduct effective procurement?

5. Challenge: Delays in funding for procurement.

Delays in government funding approval and allocation of program procurement budgets can delay the start of the procurement process, which, in turn, can delay the eventual delivery of the goods.

Question:

What can be done to help improve the timely allocation and release of funds to support the procurement process?

.

6. Challenge: Product quality assurance.

Poor quality and substandard products are in the marketplace, creating a significant product quality risks for the supply system.

Question:

What measures can the procurement process take to help ensure that only good quality products enter the supply system?

7. Challenge: Transparency

Because of the large sums of money involved in health care commodity procurement, it is not uncommon for fraud and corruption to occur.

Question:

What measures can be taken to help ensure an open and transparent procurement process?

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SESSION 15 INTRODUCTION TO COLD CHAIN

Key Cold Chain Technical Terms and Concepts

DIRECTIONS FOR SMALL GROUP WORK

This exercise is the first of a three part exercise. It is a rapid review of material you have just seen. Each member of your group should volunteer to pick a technical term or concept and give it a satisfactory definition, explanation, or example. Eventually, in the limited time that you have, each group member will try to take three or four items. You may look at notes or other parts of this guide.

The members of the group do not need to take turns, and the group does not have to take the terms in the same order they are listed here. It could be that nobody wants to take a certain term.

Each time a term is addressed it should be ticked or crossed out. Pick a time keeper to help the group move on to the next items and not spend too much time on any one point. The total time allocation is five minutes, which is about three terms per minute.

HEAT SENSITIVE

3 MAIN COMPONENTS OF THE COLD CHAIN

(DIS)ADVANTAGES OF THE 2 REFRIGERATOR TYPES

COLD BOX

2 TYPES OF THERMOMETERS

ICE PACKS

VACCINE POTENCY

FREEZE SENSITIVE

CCM

VVM

DILUENTS

SHAKE TEST

VACCINE CARRIERS

COLD LIFE

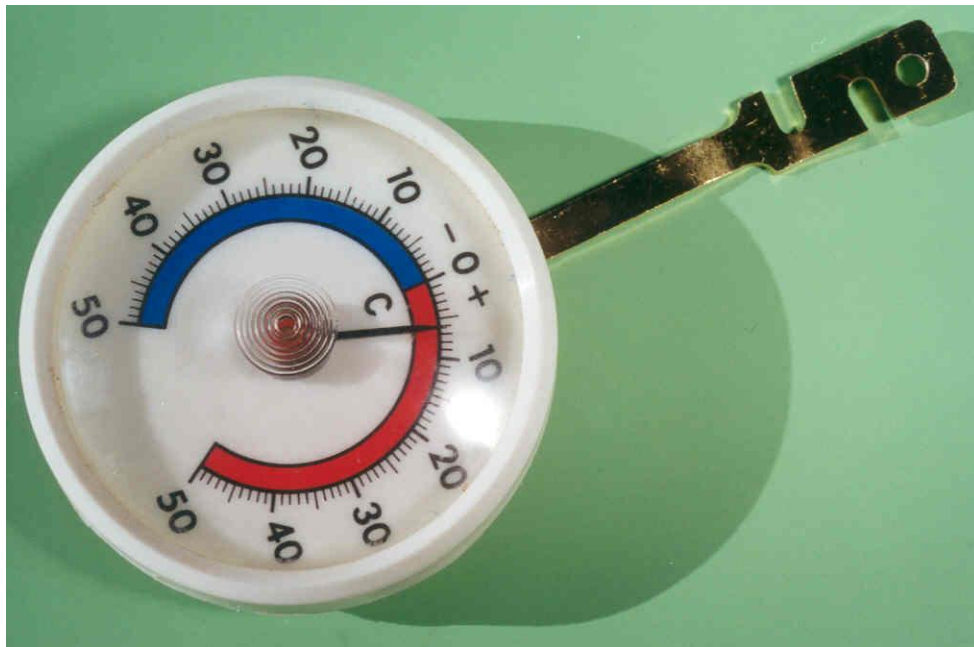
Sample Cold Chain Management Equipment

Dial Thermometer:

A Dial Thermometer is a round shaped thermometer used to measure temperature for vaccine storage. It is generally used for taking the inside temperatures of deep freezers, ice lining refrigerators, cold-boxes, vaccine carriers etc. The diameter of the Dial Thermometer is 2.5 inches. In it there is a round scale, half of which is red with the other half black/blue. Inside the scale there is a round spring which is made of two types of metals. On one side there is a hand. The spring expands or squeezes in accordance with the up/down of temperature and the hand indicates temperature.

There are markings for each 1⁰ degree around the dial. This thermometer measures temperatures from + 50⁰ to “0” Celsius within the red part of the dial and “0” Celsius to -50⁰ Celsius within the black/blue part of the dial.

The long handle or Censor is very sensitive. It cannot be caught or touched. If caught or touched on the handle the Thermometer will show the temperature of the body, it won't show the temperature of the inside of the Deep Freeze or Ice Lining refrigerator. The temperature has to be seen by looking at the two sides of the round disc.



Vaccine Vial Monitor:

Tell students that the vaccine Vial Monitor is another device by which the quality of a vaccine can be checked to determine its usability. The Vaccine Vial Monitor is made of a material which is heat-sensitive, and changes its colour due to heat. As the vial absorbs heat the colour of the monitor becomes deeper in colour. The inside of the square of the vial monitor changes in comparison to the colour of the outside “Circle”.

If the colour of the square of the Vaccine Vial Monitor is fully white. The quality of this vaccine is OK.

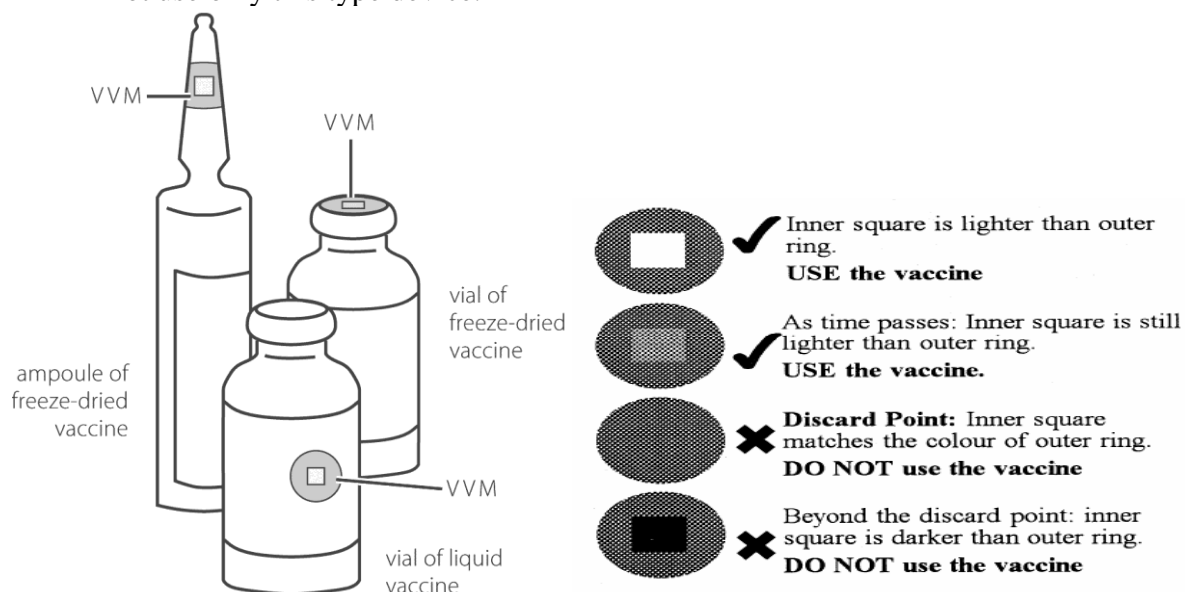
As long as the colour of the inside “square” remains lighter than the colour of the outside “circle”, the vaccine

can be used. This means the vaccine has not been damaged by heat and, if the expiry date is not over, this vaccine can be used.

If the colour of the inside “square” is becoming dim inform the higher authority this vaccine must be used first. If the colour of the “Square” is a bit lighter than the colour of the “Circle” and the expiry date has not been crossed yet, this type of vaccine can still be used.

If the colour of the inside “Square” has become exactly the same as the colour of the outside “Circle”, even though the expiry date has not been crossed, this vaccine cannot be used. If the colour of the inside “Square” has become darker than the colour of the outside “circle”, this vaccine cannot be used even if the expiry date is not passed.

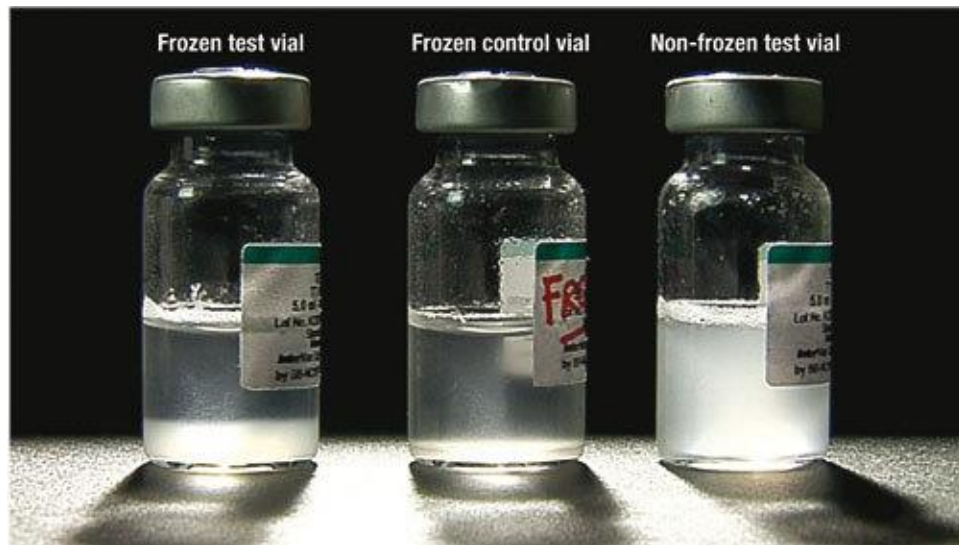
Because a VVM does not show if a product has been frozen or not, any vaccine which is cold sensitive should not use only this type device.



Shake Test:

DPT, TT and Hepatitis-B vaccines can lose their potency by exposure to too much cold. So care should be taken to avoid freezing these. If there is doubt about the quality of a vaccine a simple test can tell you if the vial was frozen. It's called the **Shake-Test**.

In a typical demonstration of the shake test, two identical vials of a vaccine (i.e. from the same batch and the same manufacturer) that is suspected of having been exposed to freezing temperatures are selected; one of the two vials is purposely frozen and then thawed as the negative control, while the second vial serves as the vial to be “tested” against this negative control. The two vials are held together in one hand and shaken; they are then placed side by side on a flat surface. Provided the test vial has not been frozen, sedimentation is slower in the test vial than in the control vial that has been frozen and thawed. If the test vial has been frozen, the test and control vials will have similar sedimentation rates.^{1, 2}



¹ World Health Organization. *Guideline for establishing or improving primary and intermediate vaccine stores*. Geneva: WHO; 2002 (WHO/V&B/02.34).

¹ Milstien J, Kartoglu U, Zaffran M. Temperature sensitivity of vaccines. Geneva: World Health Organization; 2006 (unpublished document WHO/IVB/06.10)

Questions:

- 1) *Describe any cold chain equipment you have worked with.*
- 2) *Which of those items worked well and which didn't? Explain.*
- 3) *Have you seen thermometers that record temperatures by the hour or every several hours? What might be the advantages and disadvantages of these?*
- 4) *What kind of special handling instructions might be needed with the vial monitor?*
- 5) *What additional information would you want, if any, to feel confident to run a shake test? Are you familiar with this method of verifying vaccine validity?*

Final Small Group Discussion Questions on CCM

1. List all the challenges that are faced at central, provincial, and district levels, to maintain a cold chain taking into account the wide variations in temperatures across geographical areas throughout the year.
2. Discuss and write down possible cost-effective solutions for these changes.
3. Does anyone have examples of how, the cold chain system has changed or improved over time? (When processing tell students that this could even include memories going back to childhood).
4. Can anyone give an example of some aspect of the cold chain system that has gotten worse?
5. Does anybody know of technological changes or improvements that are probably coming into the system or that should come into the system?
6. If you had a small amount of money or resources, what would be one or two priority changes that you would like to make?

Note that the World Health Organization has a wealth of important information on CCM:
<http://www.who-int/vaccines-documents>

SESSION 16 MONITORING AND EVALUATION

BASIC M&E TERMS - Matching Terminology

Monitoring	Inputs	Baseline Data	Information
Tools or Data Sources	Goal	Outcome	Evaluation
Analysis	Feedback	Impact	Objective
Output	Process	Indicator	Data
M&E Plan			

	A comparison of objectives with accomplishments and how the objectives were achieved
	The routine collection and analysis of measurements or indicators to determine ongoing progress toward objectives
	Knowledge acquired in any manner; facts; data; learning; lore
	individual facts, statistics, raw numbers
	Specific statement describing the desired accomplishment(s) or results of an intervention or program. These should be measurable and should address existing problems, program weaknesses, and/or client needs (or build on strengths)
	A statement, usually general and abstract, of a desired state toward which a program is directed (usually not measurable)
	A variable that measures a particular aspect of a program (input, process, output, outcome, impact), usually related to achievement of objectives
	Set of resources (e.g., funds, policies, personnel, facilities, supplies, etc.) that are needed to implement a program/activity
	Set of activities (training, supervision, reporting) in which inputs are utilized to achieve desired results
	Direct products or deliverables of a program such as number of people trained, M&E materials developed and available for use
	Results obtained at the population level following activities (access, product availability, improved skills)
	Long-term results obtained at the population level (e.g., TFR or changes in morbidity and mortality)
	Relates objectives and activities to problems, and shows how indicators and tools measure achievement of objectives
	Means for measuring indicators
	Convert data into information
	Presentation of information to decision makers
	Basic information gathered before a program begins. It is used later to provide a comparison for assessing program impact.

SESSION 16 COMMODITY SECURITY VIGNETTE

Please take a moment to prepare a vignette (mini-case study) that represents an example from your country about a positive or negative effect that logistics management has had on commodity availability. Choose an example from any program you are familiar with. Please be as specific as possible about the nature of the problem, causes and solutions or actions taken.

Name of Participant: _____

Country (and year) from which Example is drawn: _____

Vignette:

1. What program/intervention is this example for?

2. List the commodities that were affected:

3. Explain the nature of the supply disruption/challenge/problem (*e.g. the program was facing an imminent threat of TB stockouts, or the program had a 3 year supply of condoms with no place to store them*)

4. List the three primary causes of the supply disruption/challenge/problem (*e.g. funding was promised by GFATM but, or no forecast was prepared, etc*)

Commodity Security Vignettes Continued

5. Briefly describe the intervention that occurred, if any, or the end result of the problem (*e.g., DfID stepped in with funds for a 3-month emergency supply, or nothing was done and the country was stocked out for 5 months*)
6. If no action, or insufficient action was taken, how could it have been handled differently?

**Page left intentionally blank so participants can remove Vignette sheets
and still have the Case Studies**

PAKISTAN CASE STUDY 1

You are a young, energetic, public health professional working at the Directorate of Health Services in Punjab province. The federal government as per the 18th Amendment devolved MOH and all its vertical health programs to the provinces recently. Your annual provincial health budget (from the DOH) is less than 100 PKR per person per year and 70% of the money is kept for procurement of health commodities and equipment.

One of the DOH strategies is the provision of integrated health care to avert alarming maternal and child mortality especially for the districts in the southern region. One of DOH priority activities is provision of Birth Spacing at district and sub-district level including BHU, dispensaries, RHC, THQ and DHQ.

Despite infrastructure, community based workers and health care providers at the facilities; the region as a result has an average TFR of 4.9, MMR at 530 and CPR at 16% for the last five years. You have just read an article that suggests that availability of FP products may be the single most cost-effective logistics intervention as per study findings. You notice that district stores have poor supplies and sub-district distribution is highly compromised. However, your effort at convincing relevant EDO (H) and DPIU/LHW encounters a rather passive, fatalistic response.

Keeping district health systems and population welfare department in mind, what do you think are the

1. Factors associated with low availability of Family Planning products
2. Steps to ensure regular supplies at the district and sub-district levels
3. Ways to improve performance management for the public health supply chain

PAKISTAN CASE STUDY 2

Four neighboring districts are having very different results. Three of them have reduced maternal mortality by nearly 25% over the last two years. The fourth one, however, has actually had a slight increase in maternal mortality. You and a colleague have looked at all the possible variables that could explain the difference. All four districts have similar population size, a similar number of medical and clinic facilities, staff and lady outreach workers. The populations are even very similar ethnically. And the infrastructure in the four districts is about the same, which is to say that none of them has a very good infrastructure.

Then you notice something at the storeroom in the fourth district. There are very large quantities of four key products (mostly antibiotics) that help reduce maternal mortality. And you learn that the district chief came to his job about a year and a half ago, and he missed a major training from the MOH on the national initiative to reduce maternal mortality. He did not know what to do with all these products. He did not know that they are now part of the list of high priority products that are national priorities and that are now in “full supply,” meaning that the country has pledged to have enough of them there should be no stock outs.

But nobody from the clinics in this district was ordering any of the products. And actually, some of the products are now about six months from their expiration date. After some phone calls, you learn that four of the five clinics you called are stocked out of these products and have not had them for a long time. The district chief is a very busy man, and he is sad and somewhat ashamed the maternal mortality statistics for his district have not changed.

The short term solution is easy. He says he will gladly include these important products with the next shipment to all the clinics, making an estimate of what will be enough to last them about two months. But he does not know what to do on a longer term basis so that each clinic gets the right amount for a steady supply with no stock outs for these full supply products and so that the district shows a decrease in maternal mortality.

What are the most important steps he should take to get these products into the regular supply chain and have commodity security for them in his district?

¹ World Health Organization. *Guideline for establishing or improving primary and intermediate vaccine stores*. Geneva: WHO; 2002 (WHO/V&B/02.34).

² Milstien J, Kartoglu U, Zaffran M. Temperature sensitivity of vaccines. Geneva: World Health Organization; 2006 (unpublished document WHO/IVB/06.10)

Questions:

- 1) *Describe any cold chain equipment you have worked with.*
- 2) *Which of those items worked well and which didn't? Explain.*
- 3) *Have you seen thermometers that record temperatures by the hour or every several hours? What might be the advantages and disadvantages of these?*
- 4) *What kind of special handling instructions might be needed with the vial monitor?*
- 5) *What additional information would you want, if any, to feel confident to run a shake test? Are you familiar with this method of verifying vaccine validity?*

Homework by Session

Session 2 Setting the Context of the Course: Commodity Security

- Read Logistics Handbook – Chapter 1 Introduction to Logistics
- Take Distance Learning Session 1 Introduction to Logistics

Session 3 Introduction to Health Logistics Systems

- Muhammed Tall's Field Notes with Happy Baby NGO – Read and answer questions for Memo's 1, 2, 3 and 4

Session 4 Logistics Management Information Systems

- Take Distance Learning Session 2 LMIS
- Read Logistics Handbook – Chapter 4 Logistics Management Information System
- Muhammed Tall's Field Notes with Happy Baby NGO – Read and answer questions for Memo 5

Session 5 Health Commodity Storage and Distribution

- Take Distance Learning Session 6 Storage of Health Commodities
- Read Logistics Handbook – Chapter 8 Storage and Distribution

Session 6 Assessing Stock Status

- Take Distance Learning Session 3 Assessing Stock Status
- Muhammed Tall's Field Notes with Happy Baby NGO – Read and answer questions for Memos 6 and 7

Session 7 Max-Min Inventory Control Systems

- Read Distance Learning Session 4 Max/Min Inventory Control Systems
- Take Distance Learning Session 5 Selecting Max/Min Inventory Control Systems – better for second half of the session
- Read Logistics Handbook – Chapter 10 – Logistics System Design

Session 9 Assessing Stock Status at Any Level

- Read Logistics Handbook – Chapter 3 Assessing Stock Status

Session 11 Assessing Logistics Systems

- Muhammed Tall's Field Notes with Happy Baby NGO – Read and answer questions for Memos 7 and 13

Session 13 Quantification of Health Commodities

- Take Distance Learning Session 8 Quantification of Health Commodities – approximately 2 hours to complete
- Read Logistics Handbook - Chapter 5 Product Selection
- Read Logistics Handbook - Chapter 6 Quantification of Health Commodities

Session 14 Procurement

- Read Logistics Handbook – Chapter 7 Health Commodity Procurement

Session 15 Monitoring and Evaluation

- Read Logistics Handbook – Chapter 9 Monitoring and Evaluation of Supply Chains

Term paper

Each student is required to submit a term paper which will account for 25% of the course evaluation. Following are four thematic areas for a term paper:

1. Utilizing the consumption data of contraceptives reported in LMIS, perform quantification for next fiscal year for any of the contraceptives.
(The exercise will be done for real consumption data available in LMIS for the next fiscal year – July to June. An estimated growth in demand is kept at 5%)
2. Procurement assignment. Mapping the Procurement Process. . Select a recent public sector procurement of a health commodity (medicines, vaccine or contraceptive) with a total value greater than 100,000,000 rupees (1 million USD). Identify and map the major steps in the procurement process from funding approval to delivery of the product. Each major step should include a narrative that describes; the actions required, the parties responsible for those actions, the regulations and procedures that must be complied with, any problems or delays encountered, and how much time was required to complete each step. A sequential timeline diagram that identifies each major step and the time for completion should be prepared.
3. Select a district store or warehouse, assess the storage conditions (temperature, humidity etc.) for all the health products available at the warehouse and recommend cost effective and feasible strategies to improve storage conditions in line with storage guidelines.
4. Analyze the pipeline and reporting for at least two important health commodities and write a report on it.

Students should select one theme as their area of research / assessment and write a detailed report on it. Each student must first develop a two to three page proposal to outline their work. The proposal should include the following components

1. Background (includes problem statement or challenge being faced)
2. Methodology (could be qualitative research, quantitative research, and / or literature review)
3. Plan of analysis

Each proposal should be submitted to the assigned supervisor within first three weeks of the start of the course. Students will review and finalize the proposal in the light of the recommendations. Students will start implementing their project only after approval of their proposal by the supervisor.

Report outline

Following are the key components of the final report to be submitted

1. Background (reviewed and refined in the light of findings)
2. Methodology (a detailed explanation of actual methodology employed)

-
3. Results (should be a meaningful analysis of the challenge within the global, regional and local context)
 4. Discussion (should include scientific analysis and comparisons of results and cost effective and feasible recommendations for a Pakistani context)

Below please find the case study assignments for the Muhammed Tall and the Happy Baby NGO.

Muhammed Tall's Field Notes with Happy Baby NGO

Welcome to Acme Pharmaceutical's headquarters. I am the Acme chief. Several days ago, our logistics expert, Muhammed Tall, disappeared while on assignment in Neighboria, where he had been working to help managers of the Happy Babies non-governmental organization (NGO) improve their logistics system. When several Acme employees and I went to his hotel room at the Center City Lodge, we discovered that he had checked out. He left his briefcase and laptop computer, but not his clothes. We printed his files on Happy Babies. Although the hotel staff remembers Muhammed leaving the hotel, they do not know where he went. Muhammed's files are almost complete. He has not, however, written a report to the NGO. I have written some important questions on the printouts. Please help us write Muhammed's report. Attached are his files, in date order. Please answer the questions that follow each memo.

This is the earliest memo we found:

Memo #1

To: Acme Chief
From: Muhammed Tall
Reference: My visit to Neighboria

I arrived in Neighboria to assist the Happy Babies NGO in logistics for contraceptives and other medical supplies. Everyone here seems committed to improving the availability of high-quality supplies. While here, I will prepare regular progress reports for you to review. I will be traveling throughout Neighboria during the next few weeks, and it may be difficult to contact me. Please send messages to me through the office of the Director of Happy Babies.

Before reading the memos and completing the assignments, read chapter 1 of *The Logistics Handbook*.

Memo #2

To: Acme Chief
From: Muhammed Tall
Reference: My visit to the Happy Babies NGO Clinic in Medville

Today, I visited Dr. Emily Lead, the director of the Happy Babies NGO clinic in Neigboria's fourth largest city, Medville. She took me on a tour of her facility. The clinic has a nice waiting area with many educational materials and several comfortable chairs.

Dr. Lead told me that they offer a wide variety of reproductive health services that focus on family planning. They also offer antenatal, pregnancy, and post-natal care, and sexually transmitted disease (STD) prevention and treatment, and immunizations.

There are four patient rooms, each set up a little differently. In the first room, Dr. Lead told me that they offer care to pregnant patients, including post-natal care (with immunizations) and pap smears. The room is equipped with a scale, exam table, autoclave, and equipment for gynaecological exams. Latex gloves, KY jelly, and antiseptics are available, and there are dozens of pregnancy test kits stacked in a corner of the room.

Two of the patient rooms are set up for contraceptive counselling. In these rooms there are contraceptives and models for counselling. HIV/STD prevention cases are seen in these rooms, as well as testing for pregnancy. While one room has gloves available for examination, the other room has none.

Dr. Lead tells me that the nurses complain that they do not have enough gloves. To respect the privacy of the patients, the nurses do not want to enter a room to take gloves from one room to another.

Dr. Lead explains that they offer condoms, oral pills, vaginal foaming tablets, intrauterine devices (IUD), and injectable contraceptive methods. I asked her about progestin-only contraceptives for women who are breastfeeding. She told me that she ordered the mini-pill Ovrette, but received only the combined oral contraceptive (COC) pill Lo-Ovral.

In the last room, they diagnose and treat STDs. Latex gloves, drugs, STD test kits, and various antiseptics were available. I saw several test kits with expired items. "We ordered too many pregnancy test kits from the hospital," Dr. Lead told me, "and now I cannot afford to replace the STD test kits." This clinic is not fulfilling all of the six rights.

Your Assignment:

1. For each of the six rights, state whether or not it is being followed at this clinic.
2. For each right that is not being followed, suggest how this situation could be improved.

Your Answers (Write your answers in the space below or on a separate sheet of paper.)

Memo # 3

To: Acme Chief

From: Muhammed Tall

Reference: My Visit to the Happy Babies NGO Central Office

Today, I visited the central office of the Happy Babies NGO. They operate 25 clinics in Neigboria, including Dr. Lead's clinic in Medville, and three hospital facilities. The largest hospital, located in

Neighborhood's capital, Center City, also houses the NGO's administrative office and the central warehouse. Happy Babies has 300 community outreach volunteers who receive supplies from the clinics. Head pharmacist Michael Rocher, is in charge of their medical supplies. He explained that his main goal is to "make sure that the products we need are available when they are needed." He explained that he and the pharmacists from the clinics meet once each year to determine our needs for future years. "Everything changes," he told me, "and we want to be flexible in our thinking, so we can respond appropriately."

I asked him if he was familiar with the activities of a logistics system. He immediately mentioned "quality control." He said it was very important that they receive good quality supplies. He said they inspect all supplies coming from manufacturers. He also mentioned that it is important to monitor the quality of supplies leaving their warehouse. "It would be wasteful to ship supplies that are about to expire to the clinics," he explained.

He said that an important logistics activity was to ensure that they did not have either too many or too few supplies. "We do not have the money or space to store large quantities, so we want to ensure that we are making an appropriate order."

We discussed the importance of monitoring the flow of supplies in the system. "I try to always know which facilities have supplies and where shortages may occur." He also noted that money is an important consideration. "Without money, we cannot buy our supplies."

We discussed the importance of other activities in a logistics system. To make our discussion easier to follow, I drew a picture of the relationship among the activities. "This makes sense." Pharmacist Rocher told me. "Now I understand how our new policy to distribute condoms to sexually active youth might affect our logistics system. The relationship is clear."

Your Assignment

1. What activities did Muhammed and the head pharmacist discuss that support the six rights? Which activities are missing from the pharmacist's explanation and discussion?
2. What is the picture that Muhammed Tall drew? What is one reason that Pharmacist Rocher said the drawing helped him understand the new policy for condom distribution?

Memo # 4

To: Acme Chief

From: Muhammed Tall

Reference: Key terms and comparisons

Since coming to Neighborhood, I realize that some terms I use might not be clear. I need to help others understand special terms or meanings. For example, Dr. Lead told me that she was concerned about serving her patients. When I used the word "customer" she was confused. I told

her why we also use the term “customer.”

Head Pharmacist Rocher also told me that the term “lead-time” is one he has heard, but does not know what it means. I asked him to explain the ordering procedure for the hospitals, clinics, and community-based volunteers.

He told me the following:

- At the end of each quarter, the hospitals complete their reports.
- They usually mail their requests to him, and the mail takes about 10 days.
- It takes about five days for him to review the reports and (a) distribute the supplies.
- He usually sends the hospitals what they ask for, unless there is an error in their calculations.
- It takes about three days for the trucks to go from Center City to each hospital.
- The hospital pharmacies are usually quite busy, so it may take another two days for the hospital pharmacist to put the supplies on the shelves.
- Hospitals (b) distribute some supplies directly to customers who come for service, but most supplies (c) are distributed to the clinics.
- For the clinics, he told me that the nurses take their report to the hospital each month, and they use their personal transportation.
- The pharmacist at the hospital reviews their request, calculates their needs, and (d) distributes the supplies to take back to the clinic. The nurse can return to the clinic the same day. Most nurses, however, spend the night in town and return the next morning.
- At the clinic, the nurses immediately place the supplies in their cabinets.
- Clinic supplies are (e) distributed to customers and (f) are distributed to the community-based volunteers. There are 300 community-based volunteers helping the Happy Babies NGO.
- The community-based volunteers visit the clinic many times each month. They either walk or use public buses.
- Community-based volunteers request the supplies they need and the doctor or nurse in charge of the clinic (g) distributes them, with the supplies, all in less than one day.
- Volunteers supplies (h) are distributed to customers living in the community.

Using this information, I explained the term “lead time” to Pharmacist Rocher, and calculated the lead time for the hospitals and clinics.

He seemed confused about the term “pipeline.” When I asked him what he meant by pipeline, he said that the pipeline included all the storerooms where supplies are kept. He left out an important part of the definition.

When I asked Pharmacist Rocher the number of service delivery points (SDP) for Happy Babies, he

told me they have 25 clinics and also operate three hospitals. He asked me how many SDPs that would be.

Your Assignment

After reading Muhammed's report, answer the following questions on the following blank pages:

1. Why does Muhammed Tall use the term "customer" instead of "patient"?
2. What is the lead-time for hospitals from the main office? What is the lead-time for clinics from hospitals? What is the lead-time for community-based volunteers from clinics?
3. Part of Pharmacist Rocher's definition of pipeline is missing. What is it?
4. Draw the pipeline for the Happy Babies' logistics system.
5. How many SDPs are there in the Happy Babies' logistics system?
6. Is the relationship a *push* system or a *pull* system for the following:
 - a. Between the central stores and the hospitals
 - b. Between the hospitals and the clinics
 - c. Between the clinics and the community-based volunteers
 - d. Between the community-based volunteers and their customers
7. Muhammed's memo uses the term "distribute" in his descriptions, but the term should be "issue" or "dispense," as appropriate. Please substitute the correct term for each of the following uses in memo #4:
 - a. distribute
 - b. distribute
 - c. are distributed
 - d. distributes
 - e. distributed
 - f. are distributed
 - g. distributes
 - h. are distributed
8. Is the Happy Babies logistics system integrated or vertical? Explain?

Before continuing, read chapter 2 of *The Logistics Handbook*

Memo # 5

To: Acme Chief

From: Muhammed Tall

Reference: Managing Information at the Happy Babies Clinics

Today, I visited a rural clinic for the Happy Babies NGO in Littleton. This clinic reports to the Southland Hospital of the NGO. During my conversation with Nurse Jane Assuagme, charge-nurse for the clinic, we talked about the forms she is required to complete. "We collect so much information," she told me, "I feel like I spend half of my time completing forms! Why does the hospital ask us to collect so much information?" First, I told her why we collect information. Then, I explained there were a number of decisions that could be made from the information. These decisions could affect her clinic, the Southland Hospital, or perhaps the entire Happy Babies NGO.

She also asked me what information is essential and what information is not. I told her that while much of the information she collects is quite useful, only three pieces of information form the essential data needed to run a logistics system.

Nurse Assuagme showed me the forms she must complete for the family planning section of the NGO. I am attaching a copy of each of the forms to this report. I have some suggestions for improving these forms. We can discuss them when I return.

Nurse Assuagme mentioned that she was recently trained in completing forms for community-based volunteers, who would begin working from her clinic in the coming months. She could not remember if she should complete one report for all volunteers and one report for the clinic or one report for both the volunteers and the clinic, combined. I explained the difference between the two methods of reporting and why the differences are important.

The nurse was confused about a new report she receives each month, the Feedback Report. She asked me why she got this report, with a list of the other clinics that report to the Southland Hospital. and what was she supposed to do with it. I explained the report. I am attaching a copy of her most recent feedback report.

Memo 5 **Form 1**

HAPPY BABIES NGO
FAMILY PLANNING SECTION

Name of Clinic:		Month:		Year:	
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Method of Contraception	1 st Visit	Revists
Lo-Femenal	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
Ovrette	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
All Other Oral	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
Condom	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
DepoProvera® Injectables	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
Vaginal Tablet	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
CuT380a IUD	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
Pregnancy Test	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	
Other	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
Clients Counseled	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
	00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000

Notes: Tick one circle for each unit dispensed to a client.

Memo 5 Form 2

HAPPY BABIES NGO

Item: _____

Commodity No.: _____

Max. Stock: _____

Unit of Issue: _____

Min. Stock: _____

Transaction				Balance	
Date	To/From	Quantity Received	Quantity Issued	Losses/ Adjustments	Quantity on Hand

Facility Name: _____ Section: _____ Facility Location: _____

To (issue point) :

Please issue the stores listed below to (point of use) :

[illegible]

Account No.:

Date _____

Requisitioning Officer:

Designation:

Signature:

Issued by:

Signature:

Date _____

Received by:

Designation:

Signature:

MONTH:	YEAR:
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MONTH:	YEAR:
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**HAPPY BABIES NGO
FAMILY PLANNING SECTION**

Clinic Location:	Hospital Location:
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SERVICE STATISTICS

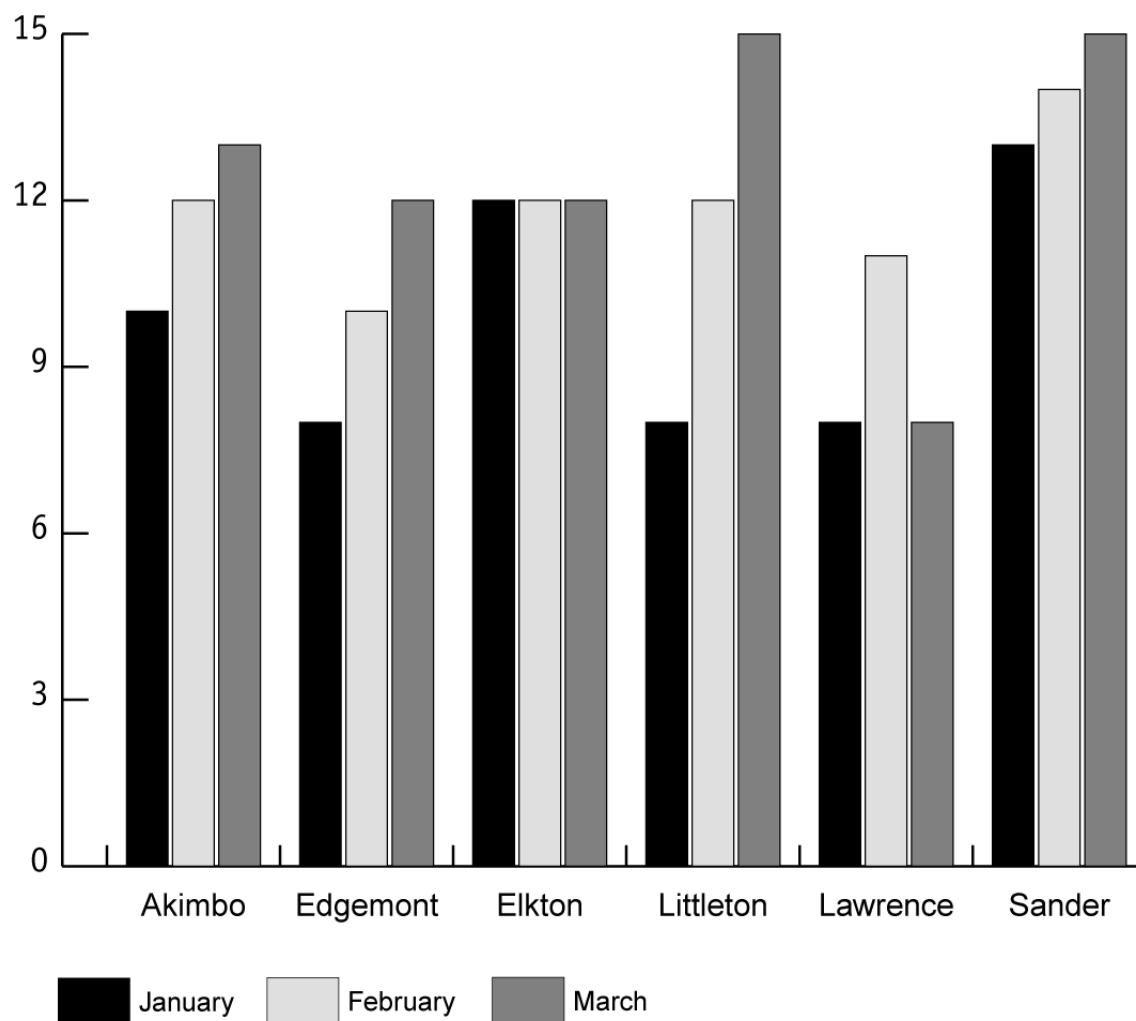
	Lo- Femenal	Ovrette	Condom	Depo- Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1 st Visit							
Revisits							

INVENTORY CONTROL

	Lo- Femenal	Ovrette	Condom	Depo- Provera®	Vaginal Tablet	CuT380a IUD	Pregnanc y Test
Beginning Stock							
Quantity received							
Quantity dispensed							
Stock on hand							

Completed by: _____ Title: _____ Date: _____

Quarterly consumption of iuDs by clinic, by Month, for clinics reporting to the southland hospital



Your Assignment:

Answer the following questions on this page and the following blank page:

1. What do you think Muhammed said when he explained why we collect information?
2. What types of decisions can be made using logistics information?
3. What three data items are essential for managing a logistics system?
4. For each of the attached forms, answer the following questions:
 - a. What type of form is it?
 - b. What is the purpose of the form?
 - c. What essential data should be included on the form?
 - d. What change(s) could you make to the form to make it more useful?

5. When the volunteer workers begin reporting to Nurse Assuagme, should she complete one report for the volunteers and one report for the clinic or one report for both the volunteers and clinic combined? Why is the answer important?

6. Why does the nurse receive the feedback report Quarterly Consumption of IUDs by Clinic by Month for Clinics Reporting to the Southland Hospital? What should she do, if anything? What could she learn from the report?

Before you continue with your assignment, read chapter 3 of *The Logistics Handbook*.

Memo # 6

To: Acme Chief

From: Muhammed Tall

Reference: Assessing Stock Status

Head Pharmacist Rocher suggested that I accompany him on a supervisory visit to the Happy Babies Clinic in Smallville. Nurse Henderson met us when we arrived. She was glad to see Pharmacist Rocher and had several questions to ask him. I made notes about what I observed during their conversation.

Nurse Henderson: I'm glad to see you Pharmacist Rocher. I am a recent graduate of the nursing program, and have been appointed to manage the clinic here in Smallville. When I arrived, my predecessor Nurse Rachett had already departed for her new posting at another clinic. My only source of information is an old manual I found in the desk. I read it, but I am not sure if the information is accurate. I am concerned because, starting next month, I will begin supervising community-based volunteers from the clinic. I want to make sure I do my calculations correctly.

Pharmacist Rocher: I would be happy to help you. May I ask you some questions? Then, I can understand your concerns and help you.

Nurse Henderson: That sounds great. I hope I know some of the answers to your questions!

Pharmacist Rocher: Do not worry too much if you do not know the answer. I am here to help you. My first question is about assessing stock status. Can you tell me what "assessing stock status" means?

Nurse Henderson: I think assessing stock status means knowing when to make an order.

Pharmacist Rocher: Can you tell me what information is needed to assess stock status?

Nurse Henderson: I need to know how much of each product I received this month and how much of each product I give to clients each month.

Pharmacist Rocher: Where can you find that information? And, how do you calculate stock status using that information?

Nurse Henderson: I can get all of the information I need by looking at the stock cards. To calculate the stock status, I divide the amount of stock I received by the amount of stock I dispensed to clients.

Pharmacist Rocher: How many months of data should you use to make this calculation?

Nurse Henderson: For the most accurate figure possible, I use all the data I have.

Pharmacist Rocher: What would you do if you discovered that consumption was rising or falling rapidly?

Nurse Henderson: Consumption that is rising or falling rapidly is called a “trend.” If I see a trend, I would change the amount I order.

Pharmacist Rocher: How would you change the amount?

Nurse Henderson: If the trend is an increasing one, I order twice as much, and if the trend is a decreasing one, I order half as much.

Pharmacist Rocher: Thank you for answering my questions. Let us review your answers, and I can show you how to improve the accuracy of your stock status assessment.

I watched Pharmacist Rocher correct the nurse for six errors. He offered her on-the-job training and Nurse Henderson was eager to learn the correct answers. I think she will be an excellent manager of supplies at this clinic, with Pharmacist Rocher’s guidance. He is an effective supervisor who listens carefully.

After they reviewed the formulas, Pharmacist Rocher and Nurse Henderson worked together to assess her stock status for four of her contraceptive products. To make sure she understood what to do, they assessed the stock status each month for the past six months.

When there was only one month of data, I suggested they use only that month’s data. I suggested that with two months of data, they use both months of data and divide by two. They agreed to continue this process, using all the available data and dividing by the number of months of available data, until they had six months of data.

I feel confident that Nurse Henderson understands how to assess stock status for her clinic.

I am attaching to my report a copy of the forms they used to assess her stock status.

Reports for Smallville:

Month: November Year: 2000

HAPPY BABIES NGO
Family Planning Section
Monthly Planning Report

Clinic Location: Smallville Hospital Location: Greenville

SERVICE STATISTICS

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	1	3	8	6	0	2	20
Revisits	9	9	12	28	0	0	58

INVENTORY CONTROL

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	43	388	812	89	100	10	40
Quantity Received	100	200	300	50	0	0	10
Quantity Dispensed	28	12	192	34	0	2	15
Stock on Hand	115	576	920	105	100	8	35

Completed by: E. Rachett Date: 3/12/01
 Title: Nurse

Month: November Year: 2000

HAPPY BABIES NGO
Family Planning Section
Monthly Planning Report

Clinic Location: Smallville Hospital Location: Greenville

SERVICE STATISTICS

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	2	3	6	6	0	0	17
Revisits	10	11	14	30	0	0	65

INVENTORY CONTROL

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	115	576	920	105	100	8	35
Quantity Received	0	0	0	0	0	0	20
Quantity Dispensed	32	14	200	36	0	0	17
Stock on Hand	83	562	720	169	100	8	38

Completed by: E. Rachett Date: 5/1/01
 Title: Nurse

MONTH: January

YEAR: 2001

HAPPY BABIES NGO
Family Planning Section

Monthly Planning Report

Clinic Location: Smallville

Hospital Location: Greenville

SERVICE STATISTICS

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	5	1	6	3	0	1	14
Revisits	10	9	10	37	0	0	66

INVENTORY CONTROL

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	83	562	720	169	100	8	38
Quantity Received	0	0	0	0	0	0	10
Quantity Dispensed	35	10	220	40	0	1	14
Stock on Hand	48	552	500	129	100	7	34

Completed by: E. Rachett

Date: 2/2/01

Title: Nurse

Month: November

Year: 2000

HAPPY BABIES NGO
Family Planning Section

Monthly Planning Report

Clinic Location: Smallville

Hospital Location: Greenville

SERVICE STATISTICS

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	2	3	4	2	0	3	15
Revisits	12	9	13	40	0	0	34

INVENTORY CONTROL

	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	48	552	500	129	100	7	34
Quantity Received	100	0	200	100	0	0	12
Quantity Dispensed	38	12	204	42	0	3	15
Stock on Hand	110	540	496	187	100	4	31

Completed by: E. Rachett

Date: 6/3/01

Title: Nurse

Month: November	Year: 2000						
HAPPY BABIES NGO Family Planning Section Monthly Planning Report							
Clinic Location: Smallville	Hospital Location: Greenville						
SERVICE STATISTICS							
	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	10	3	7	6	0	0	26
Revisits	12	6	11	38	0	0	67
INVENTORY CONTROL							
	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	110	540	496	187	100	4	31
Quantity Received	0	0	0	0	0	1	15
Quantity Dispensed	46	9	180	44	0	0	12
Stock on Hand	64	531	316	143	100	5	34
Completed by: R. Henderson		Date: 4/3/01					
Title: Nurse							

Month: November	Year: 2000						
HAPPY BABIES NGO Family Planning Section Monthly Planning Report							
Clinic Location: Smallville	Hospital Location: Greenville						
SERVICE STATISTICS							
	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	TOTAL
1st Visit	7	4	4	2	0	2	19
Revisits	11	10	8	45	0	0	72
INVENTORY CONTROL							
	Lo-Femenal	Ovrette	Condom	Depo-Provera®	Vaginal Tablet	CuT380a IUD	Pregnancy Test
Beginning Stock	64	531	316	143	100	5	34
Quantity Received	0	0	0	0	0	0	10
Quantity Dispensed	51	14	144	47	0	2	13
Stock on Hand	24	517	172	96	100	3	21
Completed by: R. Henderson		Date: 6/5/01					
Title: Nurse							

Your Assignment

1) Please note what Pharmacist Rocher said to correct Nurse Henderson during the on-the-job training.

What Nurse Henderson said:

What Pharmacists Rocher said to correct her:

a) The purpose of assessing stock status is to know when to order

b) to assess stock status, I need to know how much of each product I received this month and how much of each product I give to clients each month.

c) I can get all of the information I need by looking at the stock cards.

d) To calculate the stock status, I divide the amount of stock I received by the amount of stock I dispensed to clients

e) I would use all of the data I have.

f) If the trend is an increasing one, I order twice as much, and if the trend is a decreasing one, I order half as much.

2. Fill in the tables below for the stock status assessments observed by Muhammed Tall:

Lo-Femenal				
Date	Stock on hand	Consumption this month	Average monthly consumption	Months of stock on hand
November 30, 2000				
December 31, 2000				
January 31, 2001				
February 28, 2001				
March 31, 2001				
April 30 2001				

Overette				
Date	Stock on Hand	Consumption this month	Avg monthly Consumption	Months of stock on hand
November 30, 2000				
December 31, 2000				
January 31, 2001				
February 28, 2001				
March 31, 2001				
April 30, 2001				

Condoms				
Date	Stock on Hand	Consumption this month	Avg monthly Consumption	Months of stock on hand
November 30, 2000				
December 31, 2000				
January 31, 2001				
February 28, 2001				
March 31, 2001				
April 30, 2001				

Depo-Provera

Date	Stock on Hand	Consumption this month	Avg monthly Consumption	Months of stock on hand
November 30, 2000				
December 31, 2000				
January 31, 2001				
February 28, 2001				
March 31, 2001				
April 30, 2001				

Memo # 7

To: Acme Chief

From: Muhammed Tall

Reference: Assessing stock status at the Happy Babies Hospital in Greenville

After our visit to the clinic in Smallville, Pharmacist Rocher and I visited the Happy Babies Hospital in Greenville. The Smallville clinic sends its reports to this hospital. At the hospital, we met the hospital's pharmacist, Mrs. Linda Lamaison.

Pharmacist Rocher explained that Mrs. Lamaison supervises eight clinics from the Greenville Hospital. (He also told me that the Center City Hospital supervises 11 clinics, while the Southland Hospital supervises the remaining six.) Because the area around Greenville is more urban, Mrs. Lamaison clinics supervise only 86 of the nearly 300 total community-based volunteers.

Pharmacist Rocher asked Mrs. Lamaison if she could tell us about the stock status within her facilities. She showed us three summary worksheets she had prepared for the previous six months using a computerized spreadsheet: one each for the community-based volunteers, her clinics, and the hospital pharmacy.

I was concerned that it would be difficult for Pharmacist Rocher and Mrs. Lamaison to decide what data to use when assessing stock status. However, Mrs. Lamaison quickly assessed the stock status for all three levels and the entire group. She demonstrated her skills most effectively when she used the consumption data from all levels to assess the hospital storeroom's stock. "After all," she noted, "the hospital storeroom supplies not only our clinic, but all the clinics and volunteers that come for supplies." Her logistics' skills were impressive.

Attached you will find the condom reports she shared with me.

Condom Consumption by Month:

Month	Volunteers	Clinics	Hospital Clinic	TOTAL
November 2000	2,320	1,625	385	4,330
December 2000	2,265	1,645	425	4,335
January 2001	2,410	1,685	430	4,525
February 2001	2,395	1,800	375	4,570
March 2001	2,450	1,815	410	4,675
April 2001	2,390	1,820	410	4,620
TOTAL	14,240	10,390	2,435	27,055

Condom Stock on Hand by Month:

Month	Volunteers	Clinics (incl. hospital)	Hospital Storeroom	TOTAL
November 2000	4,710	4,600	13,300	22,610
December 2000	4,570	4,800	13,200	22,570
January 2001	4,830	4,900	13,400	23,130
February 2001	4,730	5,200	13,500	23,430
March 2001	4,200	5,400	13,200	22,800
April 2001	3,900	5,900	12,300	22,100
TOTAL	26,940	30,800	78,900	136,840

Hospital Condom Issues by Month:

Month	Quantity Issued
November 2000	6,500
December 2000	5,300
January 2001	4,800
February 2001	4,900
March 2001	5,400
April 2001	6,200
TOTAL	33,100

Your Assignment

1. Complete the following table to assess the condom stock status at the end of April. Be sure to use the appropriate data.

Level	Stock on Hand	Average Monthly Consumption	No. of Months of Stock on Hand
Volunteers			
Clinics			
Hospital Storeroom			
Entire Area			

2. Complete the following table, based on your assessment of stock status for each level and the entire area.

Level	Order Interval	Situation: Understocked/ Adequately Stocked/ Overstocked
Volunteers	Monthly	
Clinics	Monthly	
Hospital Storerooms	Quarterly	
Entire Area	Monthly/Quarterly	

3. Which assessment of stock status is preferred— only the stock status of the hospital storeroom or the stock status of the entire area? Why?

Memo # 13

To: Acme Chief

From: Muhhamed Tall

Reference: My initial assessment of Happy Babies

While writing my report for the visit to Happy Babies, I found my initial assessment. I realized that, while I knew something about logistics, I was just learning to be a good consultant. Happy Babies was a very different place then.

The first visit was very confusing. I remember taking a long time to write down what I thought was the purpose of the assessment visit. I am glad that the visit resulted in so many improvements, both for Happy Babies and myself.

My job was easier because some important people at Happy Babies showed their interest in making improvements. This is a quote from my original report:

In my initial assessment, I found the staff at Happy Babies to be very interested in logistics. There are several people at the central offices that want to see more done to improve the logistics system. Dr. Diallo, Dr. Lopez, Dr. Smith, and Dr. Chang all seem to be anxious to see the logistics system improved. I hope they can help us. I visited as many sites as possible, but I am having trouble gathering the information I need. There does not seem to be enough time.

I know now that I would have decided differently how to gather information about the system.

The following sample from my report shows how my consultant skills needed to be strengthened:

The list of questions I developed is not resulting in the answers I need. I rephrased the questions, but people do not always understand. For example, the storerooms at the warehouses are poorly organized. I told one of the hospital pharmacists that he should monitor the shelf life better and pay better attention to his 'maxes' and 'mins.' He did not seem to know what I was saying, and he got upset with me. When I tried to show him what to do, he refused to answer any additional questions. I have collected so much data, but I do not know how to organize it.

With my current consulting skills, this would never happen. And, with my knowledge of logistics, I could easily organize the data.

I also smile when I remember the challenges they had in completing forms at the clinic level. That was an important learning experience for the managers of Happy Babies and me. This is what I said:

I have spent a great deal of time with the clinic nurses and their forms. The forms are very difficult to fill out. Frequently, the nurses do not fill them. I have only seen a few forms, but enough to know that the nurses' math skills are unsatisfactory. Their stock cards do not match what is on the shelves. I have tried to help them, but they do not have time to listen. Their reports have a lot of mistakes. It would be better if they could easily check their math on the forms, but I do not have experience designing forms. I wonder if they are telling me the truth about what is going on. Their answers definitely do not match what I see on their shelves.

I could have written a better initial report if I had used some logistics indicators to describe these problems. For example, I could have said, "Only 60 percent of clinic reports were received by the hospital within five days of the beginning of the following period." I could have used or created other indicators.

Then, I remembered some of the problems at the time. The nurses were discouraged with their jobs. There was a shortage of spare parts for the hospital trucks; supplies were not being delivered. Many community-based volunteers were unable to come to the clinics. Some clinic nurses were able to borrow a motorcycle or get someone in their village to drive them to the hospital to pick up supplies, but the transportation system was not working well. I am glad I included this important information in my report.

The ordering system was very confusing. This is how I described it:

At some of the clinics, the nurses told me that they expect the pharmacist at the hospital to decide the quantity of supplies to send them. But, when I talked to the pharmacist, she told me she expected the clinics to send their reports with their request for supplies. It is not surprising that many clinics have stockouts. When I asked the clinics and hospitals how much stock they should keep, they said they should have enough to last an entire year because purchases are made annually. I was surprised when I heard this, but now I understand why some clinics have so much stock and some have none at all. Volunteers report that they do not understand how or why they receive the quantities they are issued. In talking to senior Happy Babies managers, I now know they have no system for inventory control.

Some of the problems I cleared up immediately with a little explanation. Some problems required an improved system design and training. As before, if I had used some logistics indicators to describe this situation, I could have helped the managers understand the strengths and weaknesses of their system more clearly.

At the time of the visit, the hospital storerooms were not much better prepared in logistics than the clinics. This is what I said about them at the time:

The hospital storerooms are no better than the clinics. Storage conditions are poor. The storerooms have evidence of rodents, and in one clinic there are old soda bottles lying around. Some of the products are expired, and these are mixed in with the good products. The rooms are dirty, and few items are labeled. Unfortunately, none of the pharmacists have been trained in logistics. They all had

some training in how to complete forms, but that's all. However, they do a good job managing the reports. They are able to attach reports from all clinics to their report.

I remember trying to list the problems with the system. Then, I remember writing the recommendations and preparing the implementation plan. I am glad that the managers at Happy Babies were interested in adopting my recommendations, with some modifications that helped my plan fit their scheduling and funding cycles.

While there are still some logistics concerns for Happy Babies, I feel this visit demonstrates that Happy Babies continues to serve its customers well.

YOUR ASSIGNMENT

1. Why did Muhammed assess the logistics system?
2. How could Muhammed have eased his workload?
3. What consulting skills needed improvement during the initial visit?
4. How could Muhammed have organized his data better?
5. How could Muhammed have improved his approach when he interviewed the nurses?
6. What is one indicator Muhammed could have used to describe the problems he encountered with the forms? What steps could he take to solve the problems with the forms?
7. Was Muhammed's memory about the shortage of spare parts and transportation challenges important? How?
8. Muhammed noted that for the problems he encountered, there were two solutions, one of them short-term. What was the problem and how was he able to easily correct it? What was the second problem that needed a long-term solution?
9. What is one indicator Muhammed could have used to describe the inventory control problems he encountered?
10. How could the hospital pharmacists improve storeroom conditions?
11. What were the major problems Muhammed identified for Happy Babies?
12. For the two most important problems, make recommendations. Be sure to include all the elements of a proper recommendation (define or state the problem, state the consequences of the problem, etc.).
13. Create an implementation plan to correct the problem that staff cannot complete the forms, and the forms may be inappropriately designed. Begin by writing the problem statement and a recommendation. Be sure to include all of the elements of a proper implementation plan (list the activity to be undertaken, give an indicator/measurement of completion/ success, etc.).
14. Describe Muhammed's role in providing assistance. What skills did he use? What could Muhammed have done differently in this assessment?