

Logistics Management Training for District Storekeepers

Facilitator Manual



Department of Health, Government of Punjab

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Acknowledgement

The complexity of work at the district storage facilities requires trained staff and defined standard operating procedures to receive, store and distribute health commodities. In this context the development of the *Manuals for Training of District Storekeepers on Logistics Management* becomes an important initiative. The training will contribute to capacity building of district storekeepers on the fundamentals of best storage and store management practices. It will also help to strengthen the understanding of storekeepers in important areas of quality assurance and monitoring and supervision of stores at all levels of supply chain.

The *Facilitator Manual for Training of District Storekeepers on Logistics Management*, made possible by the support of USAID, through the USAID | DELIVER PROJECT, is a comprehensive manual of its kind for training of district storekeepers.

The Department of Health, Government of Punjab appreciate the productive support of USAID | Pakistan in strengthening the departmental capacity in logistics monitoring and supply chain management. We would like to thank, USAID | Pakistan, for its continued support, which enabled the USAID | DELIVER PROJECT to successfully develop the manual.

We also wish to express our appreciation to Dr. Muhammad Tariq, Country Director, USAID | DELIVER PROJECT in Pakistan for his leadership role, and his dedicated team for their effort and support in developing the *Facilitator Manual for Training of District Storekeepers on Logistics Management*.

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Acronyms

AMC	Average Monthly Consumption
AD	Auto Disable Syringe Syringe
BCG	Bacillus Calmette–Guerin (vaccine against tuberculosis)
°C	Degree Celsius
CB	Closing Balance
CC	Cold Chain
CDC	Centers for Disease Control and Prevention
CLM	Contraceptive Logistics Manual
COC	Combined Oral Contraceptives
CLR	Contraceptives Logistics Record
CW&S	Central Warehouse and Supplies
DOH	Department Of Health
DHO	District Health Officer
DPT	Diphtheria Pertussis Tetanus
DPWO	District Population Welfare Officer
EDO(H)	Executive District Officer (Health)
EPI	Expanded Program on Immunization
FEFO	First Expired First Out
FP	Family Planning
FPAP	Family Planning Association of Pakistan
ICR	Inventory Control Register
IIV	Issue and Indent Voucher
IRV	Issue and Receipt Voucher
ILR's	Ice Lined Refrigerators
IUD's	Intrauterine Devices
LHW	Lady Health Worker
LMD	Last Month Dispensed to user
LMIS	Logistics Management Information System
MIN/MAX	Minimum/ Maximum
MNCH	Maternal and Newborn Child Health
MoPW	Ministry of Population Welfare
MOS	Months of Stock
MOSOH	Months of Stock On Hand
MSI	Marie Stopes International

NGO	Non-Governmental Organization
OPV	Oral Polio Vaccine
PCV	Pneumococcal Vaccine
PG	Participant's Guide
PPHI	People's Primary Healthcare Initiatives
PSO	Potential Stock Out
RHS	Reproductive Health Center
RMO	Resident Medical Officer
SC	Store Curriculum
SDP	Service Delivery Point
SIA's	Supplementary Immunization Activities
SK	Storekeeper
SOH	Stock on Hand
SPR	Supply Plan Register
SR	Stock Register
TT	Tetanus Toxoid (Vaccine)
UC	Union Council
UHFPO	Upazila Health & Family Planning Officer
UFPO	Underground Facilitator Protection Organization
USAID	U.S. Agency for International Development
VAR	Varicella containing vaccines
VLM	Vaccine Logistics Manual
VVM	Vaccine Vial Monitor

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SESSION 1: INTRODUCTION

Objectives:

By the end of the session, the participants will be able to:

1. Identify the other participants in the training session
2. Identify the six rights and the purpose of logistics management
3. Identify the main areas of responsibility of the storekeeper
4. Cite personal and group expectations for the course
5. Identify the goals and objectives for the course

Time: 90 mins

Session materials and equipment needed:

1. Picture cues for each of the “six rights” of logistics management (e.g., a picture of several commodities for “goods”, a picture of various quantities of a commodity for “quantity”, a picture of commodities in good/bad condition for “condition”, a map or picture of several different buildings for “place”, a picture of a clock or wristwatch for “time”, and a picture of the symbol for 'rupee' for “cost”)
2. Any materials needed for the icebreaker activity (see activity description and details below)
3. Name badges for the trainers and for each participant
4. Multimedia with screen

Documents in Participants Guide:

1. Course goal and overall objectives

Flipcharts or Slides:

1. Course goal and overall objectives
2. Course schedule
3. Session objectives
4. Blank flipcharts entitled “Expectations” and “Important Questions” (2 of each)
5. Workshop norms
6. Graphic of tasks overview

Trainer preparation:

The trainer should be well versed in all the concepts of the session and understand how to convey them simply. The trainer should be familiar with all session materials including those in the Participant's Guide.

Prior to starting the session trainer should be sure that all materials needed for the session are ready. If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Welcome and ice breaker/self-introduction	Small/large group activity	25
2: Overview of logistics management	Activity and lecturette	15
3: Overview of Storekeeper's logistics responsibilities	Brainstorming	5
4: Participant expectations	Individual work with group review	15
5: Course goal and objectives	Lecturette	10
6: Workshop norms	Lecturette	5
7: Course schedule	Lecturette	5
8: Review workshop logistics	Lecturette	5
9: Session summary	Lecturette	5

Activity 1: Welcome and ICE Breaker/Self-Introduction (small/large group activity)-25 mins

The facilitator welcomes the group to the course.

The facilitator SELECTS and IMPLEMENTS one of the following ice-breaker activities: [Note: if the icebreaker does not include a self-introduction component, then the participants should introduce themselves before beginning the icebreaker.]

[Option 1:] Ask participants to write three things about themselves on a piece of paper. Two of these items must be true and third must be a lie. The participants then introduce themselves one by one and tell their three characteristics in any order they wish. The group then has to identify which statement or characteristic is lie by voting.

[Option 2:] EXPLAIN the ground rules of the game.

ASK the participants and the trainers to stand in a circle with pen and paper. TELL that you will ask some questions and they will find the participants who fit into the answers. TELL that they will get 10 minutes time to identify the people and after 10 minutes they will tell the names of their identified people. ASK if the instructions of the game clear to them or not? If not, repeat the instructions.

Question-1: Whose name starts with A, B, M, N, P, or S?

Question-2: Who are working in District Health or Population Welfare Department for five or more years?

Question-3: Who has worked as a LMIS trainer before?

Question-4: Who has worked as a trainer for three or more years?

Question-5: Whose youngest child is three or less than 3 years?

Question-6: Who travelled the most to attend this training?

Question-7: Who's Father / Guardian is still worried for his/her marriage?

Question-8: Who likes singing?

Question-9: Who is good at playing cricket?

Question-10: Who knows how to swim?

Training team member will also participate in this game.

Training team may distribute these questions to the participants in the form of Handout-1.1 (Self Introduction) if they like.

TELL that by participating in this game, I hope that we have known each other in respect of our personal

liking, disliking, hobby, family condition, professional life, etc. We believe we shall pass our time here very nicely if we value and respect all these sort of things.

Activity 2: Overview of Logistics Management (activity and lecturette)-15 mins

Continue the session by MENTIONING that the overall focus of the course is logistics management. As an initial introduction, the purpose of logistics management is to insure the availability of products by insuring the “six rights”. Ask the participants if they remember the “six rights” from their previous generic logistics training course (if any they might have attended). Tell the participants that we will quickly review what the six rights are. Post the flipchart showing

The six incomplete phrases “the right”. Then, one by one, show the picture cues and ask the participants to provide the right word which makes one of “the six rights”. Each correct answer is noted on the flip chart so that the final flipchart looks like:

the *right* goods
in the *right* quantity
in the *right* condition
in the *right* place
at the *right* time
at the *right* cost

Ask participants to say what is meant by each of the “six rights”. (The participants should answer that, for example, the right goods means the products that the clients need; the right quantity means enough of the products to serve as many clients as possible, the right condition means the products must be usable, etc.

For “right cost”, ask if we need to worry about cost when our products are distributed for free. The participants should respond that cost is still an issue, as there are program costs (such as transportation) and the commodities do have monetary value.

What would be the result if all of the six rights are not fulfilled? (Participants should answer that customers get poor service, people are ill, people may die, etc.)

SUMMARIZE by saying that if the “six rights” are fulfilled, then the supply of health products can be better ensured.

MENTION that there is a wide variety of experience among the people in our group, including practical experience managing storerooms, and working with or training service providers in logistics management. SAY that everyone in the group has experience that will help to create a positive learning environment during the training and that the success of the training relies on the participation of the participants as well as the trainers.

EXPLAIN that this course is designed to help the storekeepers to review and improve their knowledge and skills in logistics management, and to promote their understanding of the logistics management system at the District level and below. A significant portion of this will be an orientation on issues related to the management of family planning commodities.

REMIND the participants that in order to achieve our purpose, we will be relying on everyone's experience and participation to make this a learning experience for everyone. Our hope is that by the end of the workshop, we will have raised and addressed a number of important issues and proposed common guidelines which can facilitate our work.

Activity 3: Overview of Storekeeper's Logistics Responsibilities (brainstorming) - 5 mins

As storekeepers you have many different responsibilities. The focus of this training is on your logistics

responsibilities. Ask the participants what some of their major areas of responsibility have been related to logistics and the management of health commodities.

Listen to the participants' ideas. Show the flipchart with the tasks overview and summarize the participants' ideas by saying that in general, storekeeper logistics tasks can be classified into these categories: a) receiving stock, b) organizing the storeroom and storing stock, c) issuing stock, d) maintaining stock balances, and e) requesting new stock.

These five tasks comprise the regular on-going logistics duties of the Storekeeper. These main categories will serve as the major topics for this training course. As we have seen in the schedule, we will also have a brief session on this as well as see an overview of the whole system and the formal reporting that will be used for this system.

Activity 4: Participant Expectations (individual work with group review) -15 mins

TELL participants that you are pleased to have this opportunity to work with them, and that you hope the course will be a useful one for everyone. The participants probably have a number of expectations for the training and questions related to the new system.

In order to help to insure that the course is as useful as it can be, it will help to define some of their expectations and questions they would like to have answered during the course. Tell participants to take 5 minutes to list, on the flipcharts posted around the room, any expectations and questions they have for the course.

GIVE the participants 5 minutes (maximum) to note their expectations and questions. At the end of the allotted time, review the expectations and questions that have been noted on the flipcharts. ASK for any clarification as needed.

Before concluding this activity, TELL participants that the flipcharts will remain posted, and that we'll come back to the lists from time to time, such as at the beginning or end of each day, to see to what extent the expectations are being addressed. MENTION that we may not be able to cover all of the expectations and questions listed, and that some may be covered in more detail than others. We will do our best to address as many of these concerns as possible.

Activity 5: Course Goal and Objectives (lecturette) - 10 mins

Once the expectations are posted, TELL the participants that, when the course was designed, it was attempted to foresee some of the expectations and questions that would be brought to the course. The training needs assessment provided some of this information. Thus, certain objectives were defined.

The facilitator PRESENTS the Slide or flipchart showing the course goal and objectives, linking them to the expectations and questions noted on the flipcharts. TELL participants that these can also be found in their Participant Guides.

While your specific expectations and questions may not be explicitly stated among the course or session objectives, we will attempt to address and respond to as many expectations and questions REMIND participants that questions are always welcome, and that if they feel that an important question is not being answered, to be sure to raise the question when they feel it is appropriate.

A variety of teaching and learning activities will be used throughout the course. The kind of activities that will be used during specific sessions will be related to the specific purpose of each activity, so for example, a hands-on activity will generally be used to develop a skill, while discussions or short lectures will be used when focusing on knowledge.

Activity 6: Workshop Norms (lecturette, large group discussion) - 5 mins

TELL participants that in order to facilitate our work, we will follow certain guidelines.

PRESENT the prepared set of workshop norms on Slide or flipchart
TELL the participants that these are some guidelines we might want to follow during the course.
ASK one participant to read each norm aloud.
ASK participants if they agree to follow these norms.
ASK participants if they would like to add any additional norms to the list;
ADD any additional norms as appropriate.
POST the flipchart on the wall so that it remains visible throughout the course.

Activity 7: Course Schedule (lecturette) - 5 mins

PRESENT the flipchart with the two-day schedule OR ask the participants to refer to schedule in their folders and very briefly runs through the sessions, linking some of the objectives and participant expectations and questions to specific sessions.

NOTE that we have only a short time together, but that our goal will be to make the most of this time and to cover as much as possible during our time together.

Activity 8: Review Workshop Logistics (lecturette) - 5 mins

REVIEW the travel/per diem, accommodation and food (tea and lunch) arrangements and indicates where the nearest bathrooms are located.

Activity 9: Session Summary (lecturette) - 5 mins

SUMMARIZE this portion of the session by noting that we can observe that the session objectives are also related in many ways to the storekeepers' areas of responsibility. Throughout the sessions we will be having discussions and will be doing a series of activities to practice the work that you will do back at your work sites.

The order of our discussions will be:

1. Organize and set up the store.
2. Stock control/monitoring.
3. Issue products from our store.
4. Request additional stock.
5. Receive products into our store.
6. Required reporting.

For each activity, we'll do all of the associated work tasks, as if we were at the site doing the work itself. This will give us practice with procedures regarding health and family planning products.

Ask for any questions the participants may have.

SESSION 2: STORE ORGANIZATION

Objectives:

By the end of the session, the participants will be able to:

1. Follow store lay-out principles when allocating space for different categories of commodities ut principles when allocating space for different categories of commodities
2. Explain storage guidelines and organize the store following those guidelines
3. Maintain the security of the store-room
4. Self-monitor store-room activities

Time: 140 minutes

Session materials needed:

1. Flipchart paper, markers, tape
2. Multimedia with screen
3. CW&S Storage video

Documents in Participants Guide:

1. Store Lay-out Principles
2. Storage Guidelines
3. Store Security responsibility
4. Monitoring checklist

Flipcharts or Slides:

1. Model floor-plan demonstrating store layout principles
2. Storage guidelines
3. Store layout principles

Trainer preparation:

The trainer should be well versed in all the concepts of the session and understand how to convey them simply. Trainer should be familiar with all session materials including those in the Participant's Guide.

Prior to starting the session trainer should be sure that all materials needed for the session are ready. If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Introduction to the session	Lecturette	5 mins
2: Define “store layout”	Interactive lecturette	10
3: Store Layout Principles	Exercise	15
4: Store layout practice	Individual work; practice activity	20
5: Organizing Store rooms	Interactive lecturette	20
6: Storage guidelines	Interactive lecturette	15
7: Determining Storage Space Needs - FAQs	Exercise and discussion	25
8: Store Security	Lecturette, Q&A	10
9: Monitoring the storeroom	Lecturette	5
10: Video – Reinforcing Best Storage Guidelines / Practices	Conclusion	15

Activity 1: Introduction to the Session (Lecturette)-5 mins

The facilitator PRESENTS the session title and GIVES the session objectives.

Activity 2: Define “Store Layout” (Interactive lecturette)-10 mins

The facilitator GIVES or ELICITS a working definition of store layout: “allocate storage space for category-wise commodities that will ensure maximum utilization of available space”.

The facilitator EMPHASIZES that store layout principles are those which are applied before the arrival of commodities.

Activity 3: Store Layout Principles-15 mins

We start our discussion by quickly reviewing store layout principles - rules which are applied when allocating storage space in the store room and which help maximize use of available storage space.

Show participants four sentences on flipchart, each of which has a blank space for a missing word or phrase. Ask the participants to read the first sentence and propose the word or phrase which needs to be added in order to make a “store layout principle”.

Participants read the first sentence and propose a word or phrase to complete each sentence correctly. (Note that the exact word/phrase given here is not required; a synonym or equally true phrase could be given.)

Get agreement for the first sentence/principle. Repeat the process for each of the other three principles.

1. Allocate -----space for fast-moving items (easily accessible)
2. Allocate a -----space for storing unusable items (separate)
3. Allocate -----space for storing chemicals (separately)
4. Allocate space for placing the ----- to keep life-saving and costly items (almirah)

If the participants don't come up with the answers easily, the facilitator can ask the following “cue” questions:

1. Where would you want to keep the fast-moving items? (Close by) Would you want to go a long distance or a place that is difficult to reach? (No.)
2. Is it a good idea to mix usable and unusable items? (No.) So, how do we want to store them? (Separately)

3. Do we want chemicals to leak on our other products? (No.) How can we minimize this risk? (Separate them)
4. Do we want these items left out in the open? (No.) Where can we keep them in the storeroom that is more secure? (Almirah)

Ask participants what the advantages are for following each principle. Also ask participants for examples of fast-moving items, chemicals, and life-saving and costly items that they handle in their store rooms.

When each of the four principles has been discussed, ask the participants if there are any other general rules or principles they follow in their store rooms. Participants might add suggestions for slow-moving items, heavy items, and liquid items.

Activity 4: Store Layout Practice (individual work; practice activity) -20 mins

We will now have a brief activity to practice applying the store layout principles which have just been discussed. If you have a more efficient floor plan, you can save time for years to come.

Ask participants to take out a piece of paper and a pencil. Ask Participants to take 10 minutes to draw the floor-plan of a store; the floor- plan should reflect the layout principles.

After the participants have had 10 minutes to work, ASK two or three participants to present their floor plan on the board/flipchart. ASK other participants to comment. INSURE that the layout principles are correctly applied, and CORRECT when necessary.

Conclude this portion of the session by SHOWING the model floor plan and EXPLAINING to the participants how the various principles are reflected in the plan.

Activity 5: Organizing Store Rooms-20 mins

Remind the participants that common management of Health and FP commodities often times means that all products are stored in the same physical space (i.e., all products in a single room, warehouse, storage area). Ask participants how many of them have at their health complexes a single store room which is sufficiently large to store all health and family planning commodities together. If any participants raise their hands, mention that for them, it will be fairly easy to ensure that the store layout principles are applied. For SKs who do not have a single store room for all products, ask if they will go back to their center at the end of training and build a single storeroom that is large enough to hold all commodities? Mention that this might be a long-term goal for the health complex.

Ask participants if health complexes that have more than one store room or storage area can still apply the store layout principles. Participants should respond that they can apply the layout principles.

Ask participants how the principles would be applied in a situation where there is more than one physical storage area. Participants might reply that they can store all H products in one area with all FP products in another area, and then apply the layout principles to each separate area. The facilitator or other participants should call attention to the fact that this is possible, but that it may not be the best solution.

Explain, or ask participants to explain, what “better solutions” might be available when dealing with more than one store room. Discussion points should include, for example:

- for fast-moving items: put all fast-moving H and FP commodities in the same store room, perhaps the one which is closest or the one which is the most easily accessible;
- for unusables: put all H and FP unusables in the same store room, perhaps the one which is the least secure, or the least easily accessible;
- for chemicals: all chemicals can be stored together, safely away from H and FP commodities;
- for life-saving and costly items: put all costly items in the locked almirah, whether H or FP. (Mention

that FP products are not generally referred to in terms of “life-saving”, and few FP products might be found among the “costly” ones; nevertheless, if there are costly FP items, they should be locked in the almirah.)

Remind participants that under the unified system, all products are to be managed the same, and applying the same principles in terms of store layout for space allocation.

Activity 6: Storage Guidelines (Interactive Lecturette)-15 mins

REMIND participants that the store layout principles are applied before commodities arrive when designing, or when re-designing a store. We will now turn our attention to guidelines which apply once the commodities have arrived and are being stored. These are called storage guidelines, and they are instructions/directions for storing commodities and the day-to-day operations of the store.

ELICIT a discussion by ASKING the participants what directions, instructions, or guidelines they follow when storing commodities. The facilitator would then ADD any of the guidelines which the participants do not mention USING the Slide of storage guidelines, EXPLAIN each and REMIND the participants that these guidelines apply equally to health and to family planning commodities

Storage Guideline	Question to ask	Answer/Point to Explain
1) Clean store at Least once a week.	What should be done to Keep the store clean?	Dust the shelves and Products; sweep the floors.
2) Arrange commodities alphabetically by generic name	Why is this important?	Products can be located easily if they are stored in a logical order.
3) Store commodities away from direct sunlight and in a dry, well-lit and well-ventilated storeroom.	Why is this important?	Products can be easily damaged by excessive heat.
4) Keep the fire Safety equipment (fire extinguisher / buckets with water & sand) in working condition and in easily accessible places.	Why is fire safety Equipment important?	To minimize damage in case of fire.
5) Store latex products (condoms, rubber gloves) away from electric motors and fluorescent lights.	Why is this important?	Because motors and fluorescent lights emit ozone, which damages latex.
6) Store narcotics and other controlled substances (inj. Pethidine), life-saving drugs (inj. Solucortef, inj. Aminophylline, inj. Sodium bi- carbonate, etc.) and theft-prone items in a locked almirah.	Why is this important?	These items are more likely to be stolen. The loss of even small quantities of expensive items result in high losses.
7) Store chemicals and flammable items at a marked place away from medicines and contraceptives.	Why is this important?	Fumes or leakage can damage products. Also, these items are more prone to causing fire, which will destroy products.

8) Place commodities on dunnage, racks and shelves so that they are off the floor and away from the walls.	Why is this important?	The air needs to circulate to avoid damage due to humidity.
9) Arrange cartons and boxes to ensure first expiry first out (FEFO) and so that arrows point up (), and identification marks/labels and manufacturing and expiry dates are visible	How can FEFO be ensured? Why should the arrows point up?	Products which expire sooner should be stored in front of products which expire later. The arrow indicates the top of the box or carton; some items can be easily damaged or ruined if stored upside down.
10) Store office supplies, equipment and old files separately from medicines, contraceptives and other health supplies.	Why is this important?	Small products should not get lost among larger items; dropping heavy items on commodities can damage or destroy them.
11) Separate and store Unusable health commodities at a marked place away from usable commodities and dispose of them at the earliest following established procedures	Why is this important?	Insure that unusable commodities are not distributed to clients.

At the end of the discussion, the facilitator should ask participants to read the storage guidelines from their Guide.

Activity 7: Determining Storage Space Needs (Exercise and Discussion)-25 Mins

TELL Participants that when it comes to calculating space for storage needs its helpful to review some commonly asked questions. Ask participants to open their Guides to the document Storage Layout Principles. Ask participants to review and underline the key points and to note down any questions they may have while reading. Tell participants they have 15 minutes to read this. After 15 mins see how many are still reading and allow a few minutes more if needed.

Review the points with participants. Answer any questions and clarify any misconceptions. If you don't know the answer to a question tell the participants that you will get back to them with it.

Activity 8: Store Security (Lecturette, Q&A) -10 mins

TELL the participants that we have been discussing the actual storage of commodities and that we will now turn our attention to the security of the storeroom itself.

There are 2 aspects of store security. One is security of the commodities stored in the storeroom and the other is security of the storeroom. ASK the participants which one of the 2 aspects is the primary responsibility of the storekeeper?

A: Ensuring security of the commodities is the primary responsibility of the storekeeper.

THANK the participants for their correct answer. COMMENT that ensuring physical security of the storeroom should be the responsibility of the supervisor and storekeeper will assist him in ensuring

storeroom security.

Ask Participants to open their Guides to: "Store Security Responsibilities" and review it with them. ASK the participants if they have any comments or questions on this. Discuss as needed.

Activity 9: Monitoring the Storeroom (Lecturette)-5 mins

Ask the Participants to open their GUIDES to the Storeroom Monitoring Checklist and TELL the participants that this checklist is a recommended tool for insuring that self-monitoring is accomplished regularly. Briefly EXPLAIN the content of the checklist and how it relates to the points covered during this session. Explain that additional items to monitor will be added as other topics are covered during the training.

Activity 10: Video – Reinforcing Best Storage Guidelines / Practices (Conclusion) - 15 mins

EXPLAIN that we are now going to look at a 3 minute video on storage of consignment received at Central Warehouse and Supplies, Karachi. ASK them to pay close attention because there will be some questions at the end.

Show participants the storage part of Warehouse video from 4:35 minutes 7:20 minutes.

After viewing ask the group the following questions based on the video and discuss.

Note: If desired, participants can also be asked to group up in teams of 3 or 4 and write their answers to these questions. If participants are sluggish or sleepy this is a better option as it makes each participate.

1) What is "LOT" number?

A lot number is an identification number assigned to a particular quantity or lot of contraceptives from a single manufacturer. Lot numbers can typically be found on the outside of packaging, as shown in figure below.



- 1) List Storage Guidelines mentioned in the video?
 - i. Inspection for damages
 - ii. Store according to LOT and FEFO
 - iii. Store at recommended temperature and not under direct sunlight
 - iv. There should be no roof leakage
 - v. Storage area should be clear and clean
 - vi. Storage area should be disinfected and sprayed on regular basis
 - vii. Bin card should be updated
 - viii. Regular physical inventory

- 2) How the CW&S storage differs from the District store?

The difference is of equipment like at CW&S proper racks, pallets, stackers, barcode scanner etc are used; while at district store racks and pallets may not be available.

- 3) What principle should be followed while placing FP products on shelves/racks in stores?
FEFO!

When the quiz is finished ask Participants if they have any comment or question about video and explain if some point is still unclear.

ASK the participants for any final questions and ANSWERS any questions which are asked.

SESSION 3: ROLES AND RESPONSIBILITIES OF STOREKEEPERS

Objectives:

By the end of the session, the participants will be able to:

1. Identify their roles and responsibilities to ensure the six rights of health and family planning commodities
2. Identify who their work impacts

Time: 45 minutes

Session materials needed:

1. Flipchart paper, markers, tape
2. Multimedia with screen

Documents in Participant's Guide:

What are Your Roles and Responsibilities?

Flipcharts or Slides:

Write the titles of 5 or 6 different SC positions each on a different sheet of flip chart paper. Put one title at the top of each page in big letters. These titles should be people that are most impacted by the work of the participants in the group. This is explained in the Activity 02 trainer notes.

Trainer Preparation:

The trainer should be well versed in all the concepts of the session and understand how to convey them simply. Trainer should be familiar with all session materials including those in the Participant's Guide.

Prior to starting the session trainer should be sure that all materials needed for the session are ready. If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Identifying Key Logistics Staff at various level of Supply Chain	Brainstorming / interactive discussion	05
2: Identifying your Roles and Responsibilities	Interactive lecturette	40

Activity 1: Identifying Key Logistics Staff at Various Level of Supply Chain (Brainstorming / interactive discussion) - 05 mins

Ask participants what are the different levels of supply chain of health commodities. They may answer central, provincial and district. Ask them to open their Guides and look into table for different levels of supply chain and key logistics staff working at these levels. Give participants a minute for this and ask if they agree or have different information. Explain if there are any questions.

Activity 2: Identifying Your Roles and Responsibilities (Interactive lecturette) - 40 mins

Ask participants to open their Guides to the page titled: What are Your Roles and Responsibilities? Give them the page number and ask them to study it for a minute. Ask participants to and complete the questions using the Table: *Responsibilities of Director (CW&S)/DPWO/DHO/Provincial/Regional Logistics Officer/Store In-Charge and Designated District Logistics Officers.*

Give Participants 15 minutes to do this but adjust as needed, being sure to remain within the time for the activity.

When they are finished answering the questions pair them up. Pair those who are not from the same facility. Ask these pairs to: (The trainer may want to write these instructions on the board).

1. Compare their answers with each other
2. Review the responsibilities of others in the system

Points may come up that need to be put on the Parking Lot for further clarification later. While Participants are doing this exercise put up the 6 flipcharts around the room.

After about ten minutes of pairs work, ask for comments from the pairs. As needed, ask discussion questions such as these:

1. Were there any surprises for you as you read about the duties?
2. Are you actually doing what your official duties are now?
3. Is your site completely staffed with people who are fully trained? If not, explain a bit.
4. Who covers for you when you are sick or on holiday?
5. Will there need to be any adjustments to your tasks or skills to do these tasks?
6. If so, what kinds of adjustments will you need to make? (help Participants think through what these new roles may mean to their daily work)

Next tell the Participants to look at the list again in the Table and this time note the other levels and responsibilities of each person in the system. After allowing Participants to study that for a few minutes ask them to stand up and write their name on the flip chart next to the person or persons that their work most impacts in the supply chain.

After they have done this and sat down ask a few Participants who they most directly impact with their work. Most should say the person at the level right below them or maybe right above them. Ask a few Participants to explain why they chose the person they did.

Follow up asking:

1. Who impacts your work most and why? Is that person above you or at your same level? Take a few answers.
2. Is it possible that we impact more than just the person right below or above us?
3. Who impacts the customer? (All of us!)

Note that everyone ultimately impacts everyone else who works on the supply chain. Each person can negatively or positively impact how well the whole supply chain functions. It is often said that the supply chain is only as strong as its weakest link. Ask Participants what is meant by this.

Close out this session by emphasizing that participants can look into Table for their specific roles and responsibilities. Also, tell them while there are official roles and responsibilities, in reality we all have to be responsible to be sure that our clients and patients are served.

Session 4: Physical Inventory

Objectives:

By the end of the session, the participants will be able to:

1. Explain “physical inventory” and describe its importance
2. Describe two types of physical inventory and their related timings
3. Describe the function of the physical inventory committee regarding physical inventory
4. Identify and explain the steps in conducting a physical inventory
5. Conduct a physical inventory following established guidelines
6. Describe and use an instrument/tool for physical inventory
7. Correctly handle discrepancies between stock quantities found through physical inventory and recorded amounts
8. Identify quality problems through visual inspection
9. Identify the causes and methods for preventing quality problems
10. Identify the consequences of quality problems
11. Take appropriate actions when quality problems are found

Time: 145 minutes

Session materials needed:

1. Flipchart paper, markers, tape
2. CW&S “Inventory management” video
3. Multimedia with screen
4. Partially completed bin cards and inventory control register pages for practice activity (for each participant and for each product to be inventoried)
5. Quantities of products to be inventoried during the practice activity (note: for two products, the inventoried quantity should match the stock on hand in the ledger; for a third product, the inventoried quantity should exceed the stock on hand in the ledger; for a fourth product, there should be the right number, but with some damaged; examples listed below)

[The Facilitator will have to alter the number or quality of the products, so that there will be discrepancies or adjustments needed when doing the physical count. For example, add or remove a few products so the ending balance no longer matches the quantity counted; replace some usable product with unusable.]

Documents in Participant's Guide:

1. Physical Inventory Concepts
2. Self Monitoring Checklist for a Physical Inventory
3. Physical inventory tool
4. Shelf life of FP products
5. Visual Indicators of Quality Problems

Flipcharts or Slides:

1. Session objectives
2. Steps in conducting physical inventory
3. Definitions of “inventory” and “physical inventory”
4. Chart of product types for quality assurance activity

Trainer preparation:

The trainer should be well versed in all the concepts of the session and understand how to convey them simply. Trainer should be familiar with all session materials including those in the Participant's Guide.

Review all materials well, including all the documents in the Participant's Guide for this session.

Note that most of the documents for this session are in the PG only.

Prior to starting the session trainer should be sure that all materials needed for the session are ready. If the session will be co-facilitated, the co-facilitators should decide before the session that will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Introduction to the session	Lecturette	25
2: Review concept of Physical Inventory	Exercise	20
3: Annual/complete Physical Inventory	Discussion	10
4: Physical Inventory Review	Group activity	35
5: Quality Assurance: Visual indicators	Lecturette	25
6: Shelf life	Interactive lecturette	10
7: Tool for conducting physical inventory	Lecturette	5
8: Importance of physical inventory	Lecturette	5
9: Function of inventory committee	Discussion	5
10: Session summary and conclusion	Q & A	5

Activity 1: Introduction to the Session (Lecturette)- 25 mins

The facilitator PRESENTS the session title and GIVES the session objectives. The facilitator REMINDS the participants that all of the information which we discuss for physical inventory can be applied equally to health and FP products.

Sub-activity: Video -- Inventory Management System? 20 minutes

EXPLAIN that before discussing Physical Inventory (PI), we will learn about Inventory Management (IM) System. Note that physical inventory is an important activity of inventory management and to understand PI, complete understanding of IM procedures will benefit the participants.

TELL participants warehouse, district stores, and any facility that stores products need to have an inventory management system to determine when to order products, how much to order, and how to maintain an appropriate stock level for all products to avoid shortages and oversupply.

In general, there are two ways to manage inventory in a warehouse: manually or an automated system. At district and sub-district level inventory management is done manually.

ASK participants how many know what an inventory management system is and how it works manually at district level. Explain that you are just looking to find the level of understanding of this within the group.

Take a few brief descriptions and then share the following information reinforcing points that were already given by the participants.

EXPLAIN that Health and Population Welfare Departments use manual inventory systems, which are hand-written stock keeping records, such as stock registers and bin cards. A manual system is organized according to date and transaction reference, which is the unique number of the corresponding transaction

record for a receipt or issue, and/or the name of the facility from which products are received and issued. They record receipts; issues, losses, and adjustments; opening and/or closing balance, balance on hand; and, sometimes, batch or lot numbers and expiry dates. They also record the date and results of physical inventories; i.e., when items are counted to verify the quantity in storage. Manual inventory management methods are a low-cost, effective way to manage inventory for a limited number of stock and the volume doesn't reach an overwhelming amount.

EXPLAIN that we are now going to look at a 2 minute video on how an Inventory Management System works in Central Warehouse and Supplies, Karachi. ASK them to pay close attention because there will be some questions at the end.

Show participants the Inventory Management part of Warehouse video from 9 minutes 50 seconds to 11 minutes and 52 seconds.

After viewing ask the group the following questions based on the video and discuss.

Note: If desired, participants can also be asked to group up in teams of 3 or 4 and write their answers to these questions. If participants are sluggish or sleepy this is a better option as it makes each participate.

1)What is Inventory Management?

In an inventory management system record is maintained to keep track of health commodities and this include receipts, issues and balance of commodities.

2)What is Physical Inventory?

It is the physical count of stock on hand

3)How the CW&S IM differs from the District store?

At CW&S it is automated – WMS; while at district store it is done manually.

4)What principle should be followed while issuing?

FEFO!

When the quiz is finished ask Participants if they have any comment or question about video and explain if some point is still unclear.

Activity 2: Review Concept of Physical Inventory (Exercise) - 20 mins

[Note: Don't allow Participants to use their Guides during this exercise as a complete answer set is provided for them]

The facilitator TELLS the participants that we will begin with a brief review of some of the main terms used when discussing Physical Inventory.

Facilitator posts four terms in front of the room and distributes a slip of paper to each participant; each slip of paper shows a word/phrase/sentence related to Physical Inventory (see note sheet for the phrases/sentences to be used). Facilitator tells the participants that they will have one minute to post their word/phrase/sentence next to the term which correctly matches their phrase/sentence.

If needed, the Facilitator can do one or two examples, showing a phrase/sentence and asking the participants to match it with the correct term. Also, depending on the size of the group, some participants

can work in pairs, or the same phrase/sentence can be given to more than one participant.

At the end of the minute, go through the participants' responses and ensure that they are correct. Ask the participants if the phrases/sentences correctly match each of the four terms. Tell Participants that they can find the answers to this in their Guides under the title Physical Inventory Concepts. The correct complete responses should be:

Sample Physical Inventory should be conducted on a regular basis: storekeepers should conduct regular (e.g., monthly) physical inventories (complete or sample) of their storerooms as a part of their own storeroom management. Mention that these regular sample physical inventories are in addition to any official annual or semi-annual inventories.

The facilitator can also MENTION that, when using partial or sample physical inventory, fast-moving, expensive, or high-usage commodities may be counted more frequently than slow-moving commodities. Ask the participants to identify some of the fast-moving items in their facilities. Ask the participants why it would be in our interest to focus on fast-moving, costly or high-usage items in partial/sample physical inventory (instead of focusing on the inexpensive, slow-moving or low-usage items). The participants should answer that the loss of costly items has a higher impact on our budget, and we want to ensure that the most-used items are readily available. Slow-moving items don't require such immediate action.

Activity 3: Annual/Complete Physical Inventory (Discussion)-10 mins

The facilitator calls the participants' attention to the items listed related to annual physical inventory. The facilitator emphasizes that annual physical inventory is different from sample physical inventory. ASK the participants to note some of the differences between annual and sample physical inventory. The participant responses should include that annual physical inventory involves counting all of the commodities in the storeroom and is generally done by an inventory committee.

ASK the participants to identify the benefits of doing a complete annual physical inventory, and note their responses on the board, making any corrections as needed. Participants can respond that some of the benefits are:

1. Ensuring that commodities are not reaching their expiration dates,
2. All products are being stored according to the storage guidelines, or that all products are being issued according to FEFO. (The participants may propose other correct responses.)

Activity 4: Physical Inventory Review (Group activity)-35 mins

[Note to the Facilitator: The purpose of this activity is to check the participant's ability to DO physical inventory correctly; then verify or reinforce their knowledge and skills, focusing on any mistakes that were made. All of the points mentioned below might not need to be discussed in great detail.]

Facilitator tells participants that they will now refresh and demonstrate their ability to correctly conduct physical inventory by doing a brief review activity. Tell participants that they will conduct physical inventory using the products and records which the Facilitator will provide them.

Divide the participants into four small groups; give each group two sets of products, and bin cards/ICR pages for each of the products. TELL the participants that they will have 10 minutes to conduct the physical inventory and then take whatever action is necessary based on the physical count. [Note: The Facilitator must be careful not to give the participants too much guidance; this is a review activity so at this time they should NOT be told every step or action that they need to take.]

The participants work for the 10 minutes, do the physical inventory and any related tasks [adjust bin card, ICR; remove damaged/expired stock, etc.].

At the end of the ten minutes, call the participants back onto the larger group and ask each group to report

on what they found and did. The Facilitator and the other participants verify that each physical inventory was done correctly, that the records were properly adjusted based on the physical count, and that any other needed actions were taken (e.g., unusable stock is separated from the usable stock, etc.).

Once each group has presented its work and the results have been verified, tell the participants that we will now review in general the actual work that they did. Ask about how they went about conducting the physical inventory (the steps), especially focusing on the actions taken for dealing with the discrepancies. Points raised during this discussion can include:

For Physical Inventory in general:

1. Count every item in stock by generic name (penicillin, ampicillin), by power (50 mg.; 100 mg.), by unit (tablets, vials, cycles, pieces) and by form (pills, liquids)
2. Count every item by hand
3. Record the findings of physical inventory on bin cards and in stock registers (note the balance on hand in the appropriate column)
4. Record the date of the physical inventory on the bin cards and in the inventory control registers (if the inventory is conducted on March 1, write "March 1" on the bin card and inventory control register)
5. Mark expiry dates on each carton or box (if not already marked)
6. Reorganize commodities according to FEFO if not already true (move the items which will expire first towards the front of the shelf)
7. Separate expired or damaged or unusable items from usable items (and make the appropriate entry in the registers) if identified during physical inventory
8. Adjust discrepancies (shortages/excesses)

In case of discrepancy:

1. Inform the supervisor
2. Identify why the discrepancy occurred (calculation error, excess, shortage)
3. If the quantity counted exceeds the amount noted in the ledger/bin card, note the excess quantity in the quantity column, add the quantity to the balance, and make a notation such as "found during physical inventory"
4. If the quantity counted is less than the amount noted in the ledger/bin card, note the missing quantity in the quantity column, subtract the quantity from the balance, and make a notation such as "found short during physical inventory"

In case of quality assurance issues:

1. Separate from usable stock
2. Don't supply
3. Inform authorities
4. Determine and correct the cause of the damage (if applicable)

Additional actions which should be taken include:

1. Convene a meeting of the district level FP providers
2. Present a list of the unusable products and show samples
3. Committee decides what to do (condemn or not)
4. Send decision to higher level for approval
5. Receive approval
6. Meet and dispose of the products per instructions

Tell Participants that we will be doing more review of the Bin Card later in the training.

Activity 5: Quality Assurance: Visual indicators (Lecturette)-25 mins

TELL participants that during the activity, each group had to deal with products that they determined were unusable. ASK some participants to show the unusable products that they found during the physical inventory activity. Ask each of these participants to say how they were able to determine that the product was unusable. Participants should identify both expired and damaged products. For damaged products, ask the participants to identify the indicator that the product was damaged (what indicated to them that the product was damaged).

After each participant tells the indicator of the quality problem that he found, tell participants that, in general, there are a number of ways to identify quality problems, and that we will quickly review them now.

ASK participants to open their Guides to the Visual Indicators Of Quality Problems and the page that shows the various product types. ASK some participants to have a look at the list. Mention that the participants are probably already familiar with visual indicators of quality problems when dealing with health products, and that there are some specific indicators to keep in mind concerning contraceptives.

At the conclusion of this portion of the session, ask for and answer any questions that the participants might have related to this point. Also refer the participants to the sections in their manual which discusses visual indicators of quality problems.

Activity 6: Shelf Life (Interactive lecturette)-10 mins

Remind participants that during the physical inventory activity, they each had some expired products in addition to the damaged ones. Ask the participants how they were able to determine that a product was expired. Participants should respond that they did so by looking at the expiration date that is marked on the product packaging. Ask the participants if any other date is marked on the packaging. Some participants should respond that the date of manufacture is also marked on the package.

The facilitator asks the participants if they can identify the term which is used to identify the time period which represents the difference between the manufacture date and the expiration date. Participants can respond, or the facilitator can inform, that this time period is the “shelf life”. The facilitator posts the flipchart which shows the definition of “shelf life”: “*the official period or time, ascertained by the manufacturer of a product, up to which the product can be used safely without any risk, if stored in conditions determined by the manufacturer; the length of time between manufacture and expiration*”).

The facilitator VERIFIES the participants' understanding by asking the following questions:

1. A product manufactured in 4/2008 has a shelf life of 5 years. What is the expiration date?
(4/2013)
2. A product manufactured in 7/2012 has a shelf life of 4 years. What is the expiration date?
(7/2016)

The facilitator then ASKS the participants why it is important to know the shelf life of products. The participants should answer that in cases where the manufacture date, but not the expiration date, is marked on a product, they can determine the expiration date by adding the shelf life to the manufacture date. This assists them to ensure that expired products are not distributed.

Tell the participants that because of the many different kinds and formulations of health products, it is difficult to give general guidelines on shelf life of the various products. For contraceptives, however, we can give general guidelines. Tell Participants to look in their Guides to the next document titled Shelf Life of Contraceptives. Briefly review and call attention to the note that is given at the bottom of the table. Also reinforce that shelf life guidelines are only valid if product storage conditions adhere to manufacturer guidelines.

Activity 7: Tool for Conducting Physical Inventory (Lecturette)-5 mins

The facilitator reminds the participants that during their earlier “generic” training, they were given a suggested tool to use when conducting physical inventory. Tell participants that they can find a copy of the tool in their Guides titled Self-monitoring Checklist: Physical Inventory. Ask them to open to that document and allow them 2 minutes to review it.

When time is finished ask if there are any questions. Ask participants which they think are the most important items to cover on this list and regularly and why. Get a brief discussion going taking a few opinions. Encourage the participants to use the list for conducting physical inventory. Remind the participants that the checklist covers all aspects of physical inventory that we have practiced and reviewed.

Activity 8: Importance of Physical Inventory (Lecturette)-5 mins

The facilitator LEADS a brief discussion by ASKING the participants why it is important to conduct regular physical inventories. Participant ideas can be NOTED on the board/flipchart. Participants might respond that conducting physical inventory ensures:

1. Entering the correct quantities on bin cards and inventory control registers
2. Recorded balance equals physical balance
3. Adjustments are made as appropriate
4. Detect unusable products
5. Products are organized according to FEFO
6. Find previously unidentified unusables
7. Self-satisfaction
8. Excess stock is identified
9. Determine and re-arrange slow-moving and fast-moving items

Activity 9: Function of Inventory Committee (Discussion)-5 mins

The facilitator reminds that the survey committee is responsible for conducting an annual physical inventory. Ask participants who could be the typical members of the survey committee and write different designations listed by the participants on the flipchart paper. The Facilitator can ask the participants what the benefits of working with the committee might be.

The participants can respond that the committee helps to ensure that quantities are accurate and that procedures are being followed, as well as to provide guidance to the Storekeeper on store management issues.

Remind participants that the tasks which are involved in conducting an annual inventory are the same as those that we have covered here during this session.

Activity 10: Session Summary and Conclusion (Question/Answer)-5 mins

Ask participants what we should add regarding the different product types and physical inventory/quality assurance. Participants should respond, or the facilitator can add, that for all H & FP products, the same principles and guidelines are applied equally.

ASK participants if they have any final questions, and ANSWER any questions which are asked.

Exercise

Trainers: Here is a list of phrases/sentences to be distributed to participants. Depending on the size of the group, some participants can work in pairs, or the same word/phrase/sentence can be given to more than one participant. The goal is to match the items correctly. Keep this original list for an answer guide and cut up a copy to distribute among participants.

A list of commodities, with quantities, at a particular place on a particular day and time	Inventory
Example: In my storeroom on May 1, I have 550 tablets of 100 mg. paracetamol and 325 250 mg. tablets of paracetamol.	Inventory
The process of counting the total number of commodities or some commodities on a random basis, available in the storeroom on a particular day and at a particular time	Physical inventory
Counting by hand, by generic name, by unit, by form, and by power	Physical inventory
Example: I count my inventory and find 100 cycles of ampicillin; 50 vials of ampicillin suspension; 2,000 500,000 unit penicillin; 1,700 penicillin of 1,000,000 unit each and 5,475 condoms	Physical inventory
All of the products/commodities are inventoried at the same time	Complete physical inventory
Generally conducted by the inventory committee once each year	Complete physical inventory
Generally done in case of theft or other exceptional cases, such as taking over of a new store	Complete physical inventory
For stores that have few products can be done more frequently than yearly	Complete physical inventory
Store operations generally cease during the time inventory is counted	Complete physical inventory
Some of the products are inventoried at different times	Partial or sample physical inventory
Can be conducted each month no matter how large the storeroom or how many products are stored	Partial or sample physical inventory
For example, 5 items are counted in January, 5 others in February, 5 others in March, and so on	Partial or sample physical inventory
During the year all products are counted at least once	Partial or sample physical inventory
Store operations can generally continue even while the inventory is taking place	Partial or sample physical inventory

SESSION 5: ISSUING OF FP COMMODITIES

Objectives:

By the end of the session, the participants will be able to:

1. Define “push” and “pull” and explain the role of the Storekeeper in each system
2. Explain and use the max./min. inventory control system for FP commodities management
3. Make order decisions based on months of stock
4. Correctly complete the issue and receipt voucher
5. Update the bin card and the Stock Register to record issues

Time: 190 minutes

Session materials needed:

1. Flipchart paper, markers, tape
2. Multimedia with screen
3. CW&S “Issuing supplies” video
4. Flipchart showing unified system
5. SDP and District data for the various activities

Documents in Participant's Guide:

1. Flow of Commodities and Data
2. Push and Pull illustration
3. Issue and Receipt Voucher (CLR-7) with job aid and exercise
4. Bin Card with job aid and exercise
5. Stock Register with job aid, exercise and answer key

Flipcharts or Slides:

1. Session objectives
2. Max./min. levels for various FP products
3. Bin card, IRV, Stock Register for the various activities
4. Answer keys to the various activities
5. Definitions of key terms
6. Formulas used for MOSOH and issue quantity
7. System overview chart with commodity flow

Trainer preparation:

The trainer should be well versed in all the concepts of the session and understand how to convey them simply. Trainer should be familiar with all session materials including those in the Participant's Guide.

Prior to starting the session trainer should be sure that all materials needed for the session are ready.

If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Introduction	Lecturette	5
2: Review of Push and Pull	Interactive Lecturette	10
3: Issuing Commodities / Supplies to Districts	Video	20
4: Determining the issue quantity and indent and issue voucher	Guided practice followed by individual work	25
5: Issuing FP products: Intro to the max./min. system	Interactive Lecturette	30
6: Decision-making based on Months of Stock	Interactive Lecturette	10
7: Determining issue quantities for the monthly issuing of FP contraceptives	Interactive Lecturette	10
8: Issuing in packing units	Question/Answer	10
9: Practice Activity: Completing Issue and Receipt Voucher (CLR – 7)	Interactive Lecturette	20
10: Updating the Bin Card and Stock Registers	Interactive Lecturette	10
11: Differences between a Bin Card and a Stock register	Question/Answer	10
12: Procedures for recording	Exercise / Discussion	20
13: Session Summary and Conclusion	Question/Answer	10

Activity 1: Introduction (Lecturette) - 5 mins

The facilitator tells the participants, as we have already seen during the general introduction; we will be reviewing all of the major tasks performed by the Storekeeper related to the management of health and family planning commodities. Tell the participants that this session will focus on tasks related to issuing stock from our facility to the facilities at the lower levels.

Activity 2: Review of Push and Pull (interactive lecturette) – 10 mins

The facilitator refers to the system diagram and calls attention to the Warehouse / Store, Storekeeper, and lower level facilities. The facilitator asks this series of questions (Participants answers shown in parentheses):

Based on what we have said about the flow of commodities and push/pull systems, under normal circumstances, who initiates the re-supply...?

1. In Pull system: For FP products moving between the warehouse and district store? (district Storekeeper)
2. In Push system: For FP products moving between the warehouse and district store? (warehouse)
3. In Pull system: For FP products moving between the district store and service provider/facility? (service provider)
4. In Push system: For FP products moving between the district store and service provider/facility? (district Storekeeper)

In an emergency, who initiates the re-supply...?

1. For FP products required by the Storekeeper? (Storekeeper)
2. For FP products required by the service provider/facility? (service provider/facility)

The facilitator tells the participants that during the remainder of this session we will be reviewing and practicing the specific tasks related to issuing H and FP products, including both initiating the issue (push) and responding to an indent (pull).

Activity 3: Video – Issuing Commodities / Supplies to Districts --- 20 minutes

EXPLAIN that we will now learn how CW&S, Karachi issue supplies to district stores.

ASK participants how they request supplies from CW&S, Karachi. Explain that you are just looking to find the level of understanding of this within the group.

Take a few brief descriptions and then share the following information reinforcing points that were already given by the participants.

At the national level, the stock issue is based on the districts requisition (CLR-6); districts can issue stock to health facilities based on sub-district product consumption.

CW&S, Karachi, is the custodian of all the public sector contraceptives and, with policy changes after devolution, CW&S stock is considered to be *onestock*.

The district store users of Contraceptive Logistics Management Information System (cLMIS) were required to fill out the Requisition (CLR-6), based on the previous consumption of that district and submit them to the Central Warehouse. However, in Release-2 of cLMIS, Requisition (CLR-6) is automatically generated using previous consumption trends for the required quantity of products for the next quarter.

EXPLAIN that we are now going to look at a 2:30 minute video on issuance of supplies by CW&S. ASK them to pay close attention because there will be some questions at the end.

Show participants the Warehouse video from 7:20 minutes to 9:49 minutes.

After viewing ask the group the following questions based on the video and discuss.

Note: If desired, participants can also be asked to group up in teams of 3 or 4 and write their answers to these questions. If participants are sluggish or sleepy this is a better option as it makes each participate.

1)What is CLR-7?

Issue and Receipt Voucher

2)How many copies of CLR-7 are prepared by issuing facility?

Three

3)Why 3 copies are made?

One is for transporter, second is for receiving facility and third is sent back to issuing facility.

4)True or false, FEFO is followed while issuing supplies?

True!

When the quiz is finished ask Participants if they have any comment or question about video and explain if some point is still unclear.

Activity 4: Determining the Issue Quantity and Indent and Issue Voucher (guided practice followed by individual work; practical activity) -- 25 mins.

The facilitator reminds the participants that they already know how to issue H & FP products, and they will review this process now. This will give us a chance to review how our decisions are affected by our stock on hand, the amount being requested and the current stock on hand of the person making the request. REMIND participants that because we are dealing with products that may or may not be in full supply (i.e., we don't have enough to fulfill all of the demand), there is no set formula to use.

The facilitator ask the participants if they are using a standardized Indent form to requisition the health and family planning commodities. The participants will respond that health facilities submit their FP demand on SDP Reporting and Requisition Form while PWD SDPs submit demand on monthly indent form. The

participants may further elaborate that medicine demand by health facilities is submitted on plain paper using following format;

S.No	Name of Medicine	Balance in Stock	Quantity Required
1	Tab. Paracetamol	000	3000
2	Cap. Amoxil 500 mg	000	4000

The facilitator should explain that whatever is the mode of indent they should consider some important information about product and to understand this we will do a small exercise.

The facilitator distributes an Indent form completed for two products and posts on flipchart the Stock on Hand data for the District store. Tell the participants that they should use this information and the information shown on the Indent form to determine (on IIV format below) issue quantities for the facility store who has given the indent.

product	provided by facility		status of the District store	issue amount
	stock on indent date	amount requested	current SOH	
[product 1]	xx	xx	xx	to be determined by participants
[product 2]	xx	xx	xx	to be determined by participants

Tell the participants that they will have 10 minutes to complete their issue amounts on the IIV. Tell the participants that they should be ready to discuss the issue amounts and how they arrived at their decisions.

At the end of the 10 minutes, go through each product, asking the participants to say how much they would issue and how they chose that amount. Discussion points will include:

- amount of stock on hand in the District store,
- amount of stock on hand with the facility and compared to the amount requested,
- average consumption for the District as a whole.

Product-1

Questions to ask:	Suggested Responses
Does our store have enough of the product to fill the full request?	NO. We use 12000 tablets per month and we have only 2000 in stock.
Does the facility need all of what he is requesting?	We are not sure. If the facility usually gets 3000 per month, then the 5000 he has will cover that need for this month. If the facility has not had a re-supply in a while, then his stock may be very low compared to what he issues in a month. (We need to find out more information.)
What is our decision?	<p>We have several choices based on several considerations:</p> <p>If we learn that the facility usually dispenses less than 3000 per month, then we can supply nothing now; he should have enough stock to cover his immediate needs.</p> <p>If we are expecting a re-supply of the store in the near future, we could issue the full amount to the facility, as the new stock should arrive before stock out or before more requests are made from other service providers.</p> <p>If we are unsure of when the next re-supply for the store will be, and the facility uses more than 3000 per month, we could still supply nothing at this time and hope that his supply will last till next month. Or, we could supply a portion of what he is requesting, knowing that we may run out of stock when others make their requests. (other possibilities may be proposed by the participants.)</p>

Product-2

Questions to ask:	Suggested Responses
Does our store have enough of the product to fill the full request?	Yes. We use 16,000 capsules per month and we have 24,000 in stock. If I give 4,000 to the facility, I will still have 20,000 to supply for the rest of the month.
Does the pharmacist need all of what he is requesting?	He has no stock of Amoxil, so we can imagine that yes, he does need all of what he is requesting.
What is our decision?	We can supply the 4,000 Amoxil capsules being requested.

Before moving on to the next activity, ASK the participants if there are any questions, and resolve any issues through group discussion.

Remind the participants that they may be in a situation where the person requesting re-supply does not have an actual IIV form. Ask the participants what action they might take in such a situation. The participants should respond that they will: re-supply using the data provided by the person making the request; provide copies of the IIV to be used for future indents; fill out both the indent and issue portions of an IIV and have the person sign it; (other).

Activity 5: Issuing FP products: Intro to the Max. / min. System (Interactive Lecturette) - 30 mins
Tell the participants that we have just seen that there are several steps that need to be followed when determining indent quantities for H products. We have also seen that the methods used for calculating quantities of health products are based largely on budgetary limitations. Mention that there is generally always a greater need for medicines than can be provided. Remind participants that, in most circumstances, health products are issued in response to an indent.

There are also several steps to follow when indenting FP commodities. Unlike health commodities, FP commodities are generally said to be in “full supply”. This means that there is generally enough of each commodity available to meet the full demand of the clients. (WRITE the definition of “full supply” on the board or fc.)

Explain that this means that budget is less of an issue, and if they apply the system correctly, they should always have enough FP products to meet demand. [The facilitator might repeat this point to emphasize its importance.]

As a result, a different system can be used for maintaining stock levels of FP products. This results in one of the major differences in the way in which stocks of family planning and health commodities are managed.

EXPLAIN that for all FP commodities, we use an inventory control system called “maximum/minimum”, or “max. / min.” for short, to tell us how much stock we want to have in our stores. (WRITE the terms “maximum/minimum” and “max. / min.” on the board or fc. Add each of the following characteristics, written in italics, as they are introduced.)

ASK the participants if they are familiar with the terms “maximum” and “minimum” stock levels. The participants might respond, or the facilitator can INFORM the participants, the following (both definitions and policy):

1. *maximum stock level*: maximum stock level is the highest limit for stock on hand; the stock level should not exceed the maximum level
2. *minimum stock level*: minimum stock level is the lowest limit for stock on hand; the stock level should not fall below the minimum level

INFORM the participants that under a max./min. system the goal is to maintain stock levels in the store that are between the maximum and minimum levels. Explain that in a max./min. inventory control system, maximum and minimum stock levels are defined for the group of products, and stock levels are maintained according to those established maximum and minimum stock levels.

As we can see from these definitions and explanations, the maximum and minimum stock levels essentially tell us when we have “enough” stock and minimum tells us when we need to order more.

Note that maximum and minimum stock levels are defined in terms of Months of Stock (MOS). For example, a storekeeper would evaluate his stock status by saying that he has “3 months of stock to supply to his SDPs” or “1.5 months of stock to re-supply lower level facilities”. For the first, it means the same as

saying “Based on recent usage, the quantity of stock that I have will be enough to supply my SDPs for 3 months.” For the second, it is like saying “Based on the current rate of consumption, my current stock will allow me to re-supply the lower level facilities for one and a half months.” Add that determining MOS is the first step in determining issue quantities for FP products.

Tell the participants that for government-issued FP products, maximum and minimum stock levels are set as follows:

SHOW the prepared flipchart or slide with the established max./min. stock levels

injectable contraceptive:

maximum 2 months

minimum 1 month

all other FP products,

maximum 6 months

minimum 3 months

and EXPLAIN that for all levels below the District:

Injectable contraceptive:

maximum 2 months

minimum 1 month

all other FP products

maximum 3 months

minimum 1 months

Mention that the reason that max. and min. levels for the injectable contraceptive are lower than for other products is that the injectable contraceptive is a more costly and more fragile item.

ASK the participants if they are familiar with the terms “overstock” and “understock”. If yes, the facilitator can ASK the participants to define the terms. Otherwise, the facilitator can GIVE the definitions.

Overstock: the stock level is over the maximum

Understock: the stock level is under the minimum

Then ASK FOR or ADD the following two terms:

Satisfactory: the stock level is between maximum and minimum

Potential stockout (PSO): the stock level is below 0.5 MOSOH for injectable contraceptive, or below 1 MOSOH for other products. (The facilitator should ADD the PSO information to the max./min. chart.)

TELL participants that when we are comparing our stock levels to the maximum and minimum levels that have been established, we say that we are “evaluating our stock status”.

TELL the participants that we use a simple formula for calculating stock status. SHOW the prepared flipchart/slide to introduce the formula.

Months of stock on hand (MOSOH) = $\frac{\text{Stock on Hand}}{\text{Last Month Dispensed to Users by Service Providers (LMD)}}$

GIVE or ASK the participants to give the definitions for each of the terms used in the formula:

Stock on hand: The quantity of usable product available at the time of calculating MOSOH.

Last month's dispensed to users by service providers: the sum of each product: the total quantity of each product delivered/given by one or more service providers during the previous month

TELL participants that when we divide our stock on hand balance by last month's dispensed to users (LMD), we are calculating how many months our stock will last at the current rate of consumption. REMIND participants that we calculate stock status separately for each family planning product. Go over two examples with the participants (write the numbers and calculations on the board, fc or slide, and ask the questions as indicated below):

- i) If an SDP has 60 Cycles of OC Pills, and the LMD was 15, then what does the calculation tell me? The participants should respond that the SDP has 4 months of stock on hand of OC pills.

Explain that this means that the OC pills they have in stock will last 4 months *at the current rate of consumption*. The facilitator can add that if the rate of consumption were greater, then the months of stock would be less; if the rate of consumption were lower, then the months of stock would be greater.

- ii) If I have 500 condoms in stock, and my LMD is 200, then what do I find when I do the calculation? The participants should respond that you find that you have 2.5 months of stock on hand of condoms. The facilitator or the participants can explain that this means that the condoms in stock will last two and a half months.

Also mention that stock status (months of stock on hand) is used to determine the stock levels of the District store as well as the stock status of each of the clinics and NGOs who receive their family planning supplies from the District store. Tell the participants that at the end of each month, we will determine the stock status of each FP commodity. For each product, we will issue enough stock to raise the total stock level for each product to the maximum. Tell the participants that we will look at this in detail in a few minutes.

The facilitator asks for and answers any questions the participants might have at this time.

Activity 6: Decision-Making Based on Months of Stock- (Interactive Lecturette)--10 mins

Tell the participants that when we determine the stock status (or MOS) for the facilities we re- supply, we are using the information to answer the questions "Do they have enough stock?" and "Do I need to issue this product?" Ask the participants what they think for each of the examples that were just done.

For the first example, we saw that we had 4 months of stock of OC pills. Do we need to issue? The participants might answer, or the facilitator can say, that for this example, we not need to issue at this time. Ask the participants to explain, or the facilitator can explain: The facility has 4 months of stock (max is 3 months); So they already have "too much" stock in their store, so we don't need to issue this product at this time.)

For the second example, we saw that the facility had 2.5 months of stock of condoms. Do we need to issue? The participants might answer, or the facilitator can say, that for this example, we do need to issue the product. Ask the participants to explain, or the facilitator can explain. (The explanation is that they have 2.5 months of stock; the maximum level is 3 months of stock. We do want to make an issue for this product. (The facilitator can add that we would issue enough to increase the stock level to its maximum, in this case, three months of stock.)

Conclude this activity by telling the participants that we have just seen how to determine stock status, which is expressed in terms of Months of Stock, and that this information tells us whether or not we need to issue.

Will now see how we use MOS to help us in determining issue quantities for FP commodities.

Activity 7: Determining Issue Quantities for Monthly Issuing of FP Contraceptives (Interactive Lecture)-10 mins

Remind participants that we have said that determining the stock status for each of the FP contraceptives is the first step in determining the issue quantities, helping us to decide if we will make an issue or not. Once we decide that we do need to make an issue, we need to know how much to issue. Tell the participants that we will now look at the formula that is used to calculate the issue quantity for FP contraceptives. ASK the participants if they currently use or are aware of a formula to determine the quantities of contraceptives that they will issue. The facilitator PROVIDES, or the participants provide, the correct formula:

$$\text{Quantity to issue to reach max.} = [\text{LMD} \times \text{max. stock level}] - \text{SOH}$$

The facilitator REMINDS the participants that when re-supplying the SDPs in a max./min. system, our goal is to re-stock the SDPs to their maximum level. Refer back to the formula that was just introduced. TELL participants that this formula is the same one that was used to calculate the quantities that the District will issue to the clinics it serves. We will see that it is also the one used to determine the quantities that the District will indent from its supply source.

The facilitator REMINDS the participants that so far we have seen the maximum stock level, which is expressed in months. In order to issue, or indent, FP products, however, we need to know what the maximum stock *quantity* is. The maximum stock quantity is found by multiplying the LMD by the max. stock level (2 for injectable contraceptive, 3 for other products). (The facilitator should add “maximum stock quantity” under that portion of the formula.)

The facilitator summarizes the information that has been presented thus far in the session by saying that we have now seen most of the main steps in calculating the issue quantity. Ask the participants to give, or the facilitator gives, the steps we have seen so far. The participants (or the facilitator) response should include:

1. Determine stock status (MOS) of each FP commodity
2. Determine the maximum stock quantity
3. Calculate the quantity needed to reach max.

Activity 8: Issuing in Packing Units (Question/Answer)- 10 mins

TELL participants that for FP products, calculating the quantity needed to reach max. is the next to last step before determining the actual issue quantity. ASK if stock is always issued in single pieces. [The participants should say “no”.]

ASK for explanation or GIVE the following information: For instance, condom can be issued by bag of 100 or 120; pills can be issued in packs of 30. Injections and IUDs are issued singly. So, for pills in this example, our decision will be to issue enough packs of pills to supply at least 220.

ASK how many bags of 30 we would need. The participants should answer “eight”, so the issue amount will be 240. TELL participants to write “240” as the issue amount for pills].

EMPHASIZE that the formula provides an initial calculation, and that since we are dealing with contraceptives, which are supposed to be in full supply, we should be able to supply the full amount. Mention, that there may be cases, however, where the person doing the issue also has to take into account the stock status when determining the final amount to issue or supply.

Activity 9: Practice Activity: Completing Issue and Receipt Voucher (CLR – 7) (Interactive Lecturette) -20 min

Tell the participants that they will now practice filling out an Issue and Receipt Voucher (IRV) for the issue of products that were not requested through an indent. Remind the participants that FP commodities will be issued in response to an indent, so that the process is the same as for H commodities: Storekeeper determines the issue quantity and then fills out the quantity issued portion of the IRV. For contraceptives, however, indent / requisition is required. Tell Participants to open their Guides to the document with name “Issue and Receipt Voucher (CLR-7).” Call attention to and explain its various columns.

EXPLAIN to the participants that they will now practice using the Issue and Receipt Voucher (IRV) to record information about the movement of stock from one storage facility to another. Storekeepers at both issuing and receiving facilities complete the record.

INFORM participants it is initiated any time a facility requests or issues supplies. They are completed when the receiving facility confirms receipt of the items shipped. The voucher is organized by date, which helps identify the transaction. It can then serve as ticklers, reminders that a request was made and not yet received or that an item was issued, but confirmation of receipt is still pending. A preprinted voucher number on each voucher helps track individual transaction / shipment.

TELL the participants that we will now do one example of completing the IRV together, using exercise and job aid in their Guide. The facilitator follows the steps outlined in the job aid and information given in exercise in the Guides.

Tell the participants that we will need to fill out more than just the issue amounts. Tell the participants that this will also give them opportunity to see and use a job aid that covers the completion of an IRV. Distribute a blank IRV and a copy of the IRV job aid to each participant.

Tell the participants that they should work individually and use the job aid if they need help in completing the IRV for the two products for which we have just determined issue quantities. TELL the participants that they will have 5 minutes to complete the IRV for the products and quantities. Tell the participants that we will review and correct the IRV after the 5 minutes.

At the end of the 5 minutes, the facilitator ASKS the participants to present the results of their work and SHOWS the correct answer. Verify that each participant has correctly filled out all portions of the IRV. Ask for and answer any questions that the participants might have. In particular, ask the participants if they found the job aid easy to use; provide any explanations or clarifications as needed.

Activity 10: Updating the Bin Card and Stock Registers (Interactive Lecturette) - 10 mins

Ask the participants what the next step would be after completing the IRV and issuing the products. The participants should answer that the next task would be to update the bin cards and Stock registers for the products that were issued. Tell the participants that this is exactly the same as for the Health products that we “issued” earlier in the session, and the process is exactly the same. Tell the participants that they will now practice this.

COMMENT that the SKs' one of the most important responsibilities is keeping up to date transaction records in Bin Cards and Stock Registers. ASK the participants what information they record in Bin Card and Stock Register. Their answers might include:

- Date of transactions
- Description of whether the quantity is received or issued
- Mentioning quantities in issued / received sections or 'Quantity'.
- Mfg date

- Balance of quantity after addition/ subtraction of received/issued products
- Signature of SK
- Periodic Check by authority

ASK the participants when the transaction data are recorded in Bin Card and Stock register. Answers might include:

Any time transaction takes place

Data are recorded on Bin Card before taking the commodities in the store and taking out of the store.

In Stock Register, data are recorded immediately after completing the transaction.

COMMENT that they have just said about the ideal situations. But what is the reality? TELL that during monitoring visits, it has been observed that majority of the District Stores do not either use Bin Cards and Stock Registers. Even those who use Bin Cards and stock registers, they do not use for all the items.

COMMENT that they have said earlier the Bin Cards and Stock Registers are updated with every transaction. But, it has been observed during monitoring visits that Bin Cards are not always up dated regularly. They remain pending for days together.

Activity 11 – Differences Between a Bin Card and a Stock Register (Question-Answer) – 10 min

ASK the SK to tell the differences between Bin Card and Stock Register. Their answers might include:

1. Bin Card is used for each individual product
2. Separate Bin Cards are used for the Usable and Unusable item
3. Bin Card is usually written by wood pencil
4. Bin Card stays with the stock of commodity
5. Only SK signs on the Bin Card
6. Bin Card is not as detail as stock register
7. Stock register is permanent register
8. Stock register is more detail
9. Stock register remains in the office/desk of SK
10. One Stock register is used for several items
11. Both Usable and Unusable item is recorded in the same page of Stock register
12. Stock register is for recording transaction of data of category-wise commodities
13. There is provision for periodic check by superior authority
14. Permanent ink is used for recording in Stock register

Activity 12: Procedures for Recording, Exercise (Discussion)-20 mins

ASK the participants how they index their Stock registers. Their answers should be:

1. They reserve more pages for fast moving/high volume items
2. Fewer pages for slow moving/low volume items.

ASK the participants what kind of certification is obtained on these records and how that certification is obtained.

LEAD the participants in a brief discussion on procedures for recording by ASKING the participants to describe or explain any recording procedures that they use. The participants should answer that they;

1. Update the Bin Cards and Stock register at each issue, receipt, and physical inventory
2. Record the relevant information in appropriate column, and
3. Bring the current balance up to date.

TELL the participants that they will now have a few minutes to practice the completion of the Bin Card and Stock register. Ask Participants to open their Guides to the document titled Bin Card and Stock Register.

TELL them that they will be provided with information which they must enter correctly on the Bin Card and Stock Register.

TELL the participants to take a minute to quickly review the job aid if they need a reminder of how to complete the bin card and Stock Register. Ask participants to go through the exercises one by one in their Guide and give participants a few minutes to update the bin cards and Stock Register.

ASK the teams to complete the recording in the Bin Cards and Stock register. Allow the teams 7 minutes time to complete the recording. At the end of the allotted time, INVITE one SK to explain the steps he has followed and the Closing Balance he has arrived at. CHECK with other teams if they have the same result. If anyone differs, ASK him to explain how he has arrived at that result. EMPHASIZE that it is the responsibility of the SK to update records with every transaction. At the same time it is the responsibility of the district manager to ensure that SK has up dated Bin Cards and stock register.

Review the correct answers for the Bin Card and the Stock Register. Show the Slide of the correctly completed bin card and Stock Register. Check to ensure that all the participants have completed the bin card and Stock Register correctly. Answer any questions or make any clarifications. Ask for and answer any questions the participants might have at this time.

Activity 13: Session Summary and Conclusion (Question/Answer) - 10 mins

SUMMARIZE the session by REPEATING the important topics covered during the session: determining issue quantities, the use of a standard form for indenting and issuing, and using the max./min. guidelines and formula for calculating issue quantities.

Remind participants that we have seen more similarities and differences in the way that H and FP products are managed. Ask the participants to identify what the similarities and differences are, and note them on the appropriate product category flipchart. The information added to the flipcharts should contain at least the following:

Health & Family Planning:

1. Same bin cards and Stock Register
2. Issuing relies on availability of accurate data

Family Planning contraceptives:

1. Pull / Push;
2. Issues based on reported data
3. Monthly use of min/max

TELL the participants that we have reviewed and practiced a number of tasks and skills that are related to their responsibilities when issuing commodities. Refer back to the list of session objectives. Ask for and answer any final questions that the participants might have.

SESSION 6: REQUISITION AND RECEIVING

Objectives:

By the end of the session, the participants will be able to:

1. Determine requisition quantities of FP commodities
2. Explain, and maintain FP stocks according to, max./min. levels
3. Prepare a requisition for FP commodities
4. Explain and follow the tasks related to receiving stock
5. Properly update bin cards and Stock register when receiving stock

Time: 120 minutes

Session materials needed:

1. Flipchart paper, markers, tape
2. Multimedia with screen
3. CW&S “Receiving and unloading supplies” video

Documents:

1. CLR-6 with job aids and exercise and answer key
2. Stock Register (see PG)

Flipcharts or slides:

1. Session objectives
2. Chart showing maximum/minimum stock levels for FP commodities (fc)
3. Sample annual projection and SOH data for FP commodities
4. Sample data to calculate requisition quantities for FP and other health products
5. Data for example calculations of FP & health products requisition quantities

Trainer preparation:

The trainer should be well versed in all the concepts of the session and understand how to convey them simply. Trainer should be familiar with all session materials including those in the Participant's Guide

Prior to starting the session trainer should be sure that all materials needed for the session are ready. If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Introduction	Lecturette	5
2: Practicing Requisition: CLR-6	Interactive lecturette	10
3: CLR-6	Exercise	15
4: Indenting FP Commodities	Interactive lecturette	20
5: Decision-making based on MOS	Interactive lecturette	10
6: Taking possession of the commodities	Interactive lecturette	35
7: Updating the Bin Card and Stock Register	Interactive lecturette	20
8: Self-monitoring for recording	Question/Answer	5

Activity 1: Introduction (Lecturette)-5 mins

Facilitator tells participants that we have seen several of the major tasks of the Storekeeper, including those related to issuing stock, (other topics which have already been presented). Tell participants that when we looked at issuing, we saw that one of the Storekeeper's responsibilities was to help ensure that lower level facilities and service providers have adequate stock. In order for this to be achieved, the Storekeeper must also ensure that he has sufficient stock in his own store, so that he has the commodities needed to supply others. This session will focus on tasks related to getting stock into the store, specifically, making requisitions for Health and Family Planning products.

Activity 2: Practicing Requisition: CLR-6 (Interactive lecturette)-10 mins

Pakistan's health and Population Departments had been using CLR-6 and CLR-6(H) for contraceptive requisitioning from central warehouse, Karachi. Before devolution CLR-6 was used by Ministry of Population Welfare (MoPW) and CLR-6 H was used by Ministry of Health (MoH).

Central Warehouse (CWH), Karachi is the custodian of all public sector contraceptives and with latest policy changes after devolution, CWH stock is the whole country's stock. Integrated requisitioning was introduced and all provinces and regions agreed on this new format.

There are two main stakeholders in integrated CLR-6 i.e. the Department of Health (DoH) and Population Welfare Department (PWD) of each province and region. This form is filled at district level in quarterly meetings and signed by district officers of both departments. The District Population Welfare officer (DPWO) is the Secretary of the meeting while Chairman is Executive District Officer Health - EDO(H). EDO(H) is responsible for contraceptive requisitioning for itself, Lady Health Workers (LHW) Program, Peoples Primary Health Care Initiative (PPHI) and Maternal, Neonatal & Child Health (MNCH) Program. DPWO is responsible for itself, Reproductive Health Centers (RHS) and NGOs i.e. Marie Stopes International (MSI) & Family Planning Association of Pakistan (FPAP).

ASK Participants to open the document in their Guides titled Contraceptive Requisitioning Form (Integrated CLR-6) and briefly review the main elements of the form. Note that there are six data fields needed for each commodity requested i.e.

1. Consumption during the last quarter,
2. Stock at the end of last quarter at district Store,
3. Stock at the end of last quarter at health outlets,
4. Total Stock Available (sum of stock both field and district store),
5. Desired stock level for 2 quarters (Calculated from consumption) and
6. Replenishment Requested (calculated by subtracting "Total Available Stock" from "Desired stock level for 2 quarters").

In addition to these indicators, DPWO has to submit their sales because PWD is not providing contraceptive free for cost to its clients.

To help us understand the content of this form and the importance of the data it collects we will look at a job aid for completing one. In this way we will come to a much better understanding of the data it requires.

Activity 3 - CLR 6 (Exercise)- 15 mins

Ask students to open up their Guides to the document titled: Integrated CLR-6 Job Aid and the form itself. Review the job aid with the Participants.

Next, have the Participants complete the simple CLR 6 Exercise in their Guides which is provided below. Instructions to Participants: 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
 Stock on hand at district store as of Dec 31, 2013 is 1,200 cycles of COC

	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

Key

S.No	Description	Condom (No.)
1	2	3
PART - A (To be filled by Requester)		
A-1	Consumption during the last quarter	3,384
A-2	Stock at the end of last quarter at district Store	1,200
A-3	Stock at the end of last quarter at health outlets	2,198
A-4	Total Stock Available (A2+A3)	3,398
A-5	Desired stock level for 2 quarters (A1x2)	6,768
A-6	Replenishment Requested (A5-A4)	3,370

Review the answers to the exercise with the students and answer any questions about this or other parts of this activity.

Activity 4: Indenting FP Commodities (Interactive lecturette)-20 mins

Remind participants that max./min. is used for indenting in a way similar to how it is used for issuing. It provides us the guidance we need when making re-supply decisions.

Tell participants that since FP contraceptives are managed on a pull / push system, they do normally need to make indents for contraceptives; their supply source is responsible for determining issue quantities of contraceptives that the District will receive.

Although we will not discuss this situation separately, the principles of indenting according to max./min. apply equally to emergency orders for contraceptives.

Ask participants to recall what the max./min. MOS levels are at the District level for FP commodities other than Depo-Provera. Participants should respond that the maximum level is 6 months, and the minimum is 3.

Ask participants to recall what this means in plain language. Participants should respond that the stock level of FP commodities should not exceed 6 months, nor go below 3 months.

Ask if there are any questions the participants might have at this time.

Activity 5: Decision-Making Based on MOS (interactive lecturette)-10 min

Facilitator tells Participants that the decisions we make for whether or not to indent are the same as those when deciding to issue, based on our months of stock on hand compared to the max. and min. levels for our facility.

For example, if we calculate that we have 3.1 MOS of Pills, do we need to place an indent? Participants should respond yes, because we have less than 6 months of stock.

ASK participants what about if we have 6.3 MOS of Condoms. Participants should respond that we are over our maximum stock level, so we do not need to place an indent for this product at this time.

Conclude this activity by telling the Participants that we have just seen that we use stock status for indenting in the same way as we use it for issuing, and that this information tells us whether or not we need to make an indent.

Activity 6: Taking Possession of the Commodities (Interactive lecturette)- 35 mins

The facilitator LEADS the participants in a brief discussion on procedures for receiving by ASKING the participants to describe or explain the receiving procedures that they use. The participants might answer from the following; the facilitator can COMPLETE the list so that by the end of the discussion the list may look something like this below:

Ensure that the quantity of products received matches the quantity written on the issue voucher

1. Check the quality and expiration of the products
2. Take commodities and forms from the supply source
3. Convene standing committee
4. Get signatures of committee members
5. Send duplicate voucher to the supply source within 7 days
6. Store the commodities according to FEFO
7. Update the bin card(s) and stock ledger
8. file the original of the issue voucher

ASK and VERIFY if there are any changes in the procedure depending on the supply source. The participants may answer that some suppliers deliver goods, some suppliers use a particular form, etc.

The facilitator can USE (or ASK a participant to use) the board or flipchart to demonstrate how the information would be recorded on the bin card and stock register when products are received.

EXPLAIN that we are now going to look at a 3 minute video on receiving supplies at CW&S, Karachi. ASK them to pay close attention because there will be some questions at the end. Show participants the Warehouse video from 1:20 minutes to 4:35 minutes.

After viewing ask the group the following questions based on the video and discuss.

Note: If desired, participants can also be asked to group up in teams of 3 or 4 and write their answers to these questions. If participants are sluggish or sleepy this is a better option as it makes each participate.

- 1) What is GRN / CLR-3?
Goods Receipt Note
- 2) What important information about received consignment is recorded in GRN?
Ordered Quantity, Received Quantity, Quality standard details, Damages details, Defective quantity etc
- 3) How quality of received contraceptives is ensured?

Laboratory testing of a sample.

When the quiz is finished ask Participants if they have any comment or question about video and explain if some point is still unclear.

Remind participants that in their Guides there is the Self-monitoring Checklist for Receiving Goods. ASK them to open this up and review it for two minutes. Is there anything in this list that we haven't already

covered? Are there any items on this list which are more important to cover than others? Which are most important to your supervisors? Why?

Steps to take in case of discrepancies.

The facilitator ASKS the participants what they do in case they find discrepancies between the amounts noted on the receiving forms and those which actually arrive at the store (in case of breakage, short cartons, etc.). The participants should mention actions they take or actions taken by the standing committee. As a part of their answer, the participants should mention making adjustments in registers.

The facilitator REMINDS the participants that this is generally true for FP commodities as well; however, since they are receiving FP products at their District location, they do not have an opportunity to resolve discrepancies if they occur at the supply source. As a result, there are some additional steps to take when receiving FP commodities.

The facilitator ASKS the participants that if they receive a shipment of FP commodities, and they find that they have received MORE than the issue amount noted on the Issue and Receipt Voucher (IRV) WHAT they should do. Answers include:

1. Note the discrepancy on the IRV
2. Write up a separate IRV noting the excess amount
3. Send the excess amount back to the supply source with the IRV
4. Record in the Stock Register the amount received and kept at the District

The facilitator TELLS the participants that if they receive a shipment of FP commodities, and they find that they have received LESS than the amount noted on the Issue and Receipt Voucher (IRV) they should do what?

Answers should include:

1. Note the discrepancy on the IRV
2. Write up a separate IRV against the supply source, noting the missing amount
3. Record in the Stock Register the amount of stock actually received

Activity 7: Updating the Bin Card and Stock Register (Interactive lecturette) 20 mins

TELL the participants that we will now update the bin cards and Stock register for each of the products we received.

Distribute to each participant the partially completed (issued quantities filled) bin cards and partially completed Stock register for each product. Tell participants to complete the bin card and stock register for (name of product).

TELL the participants to use the job aid if they need a reminder of how to complete the bin card or Stock register. Give the participants a few minutes to update the bin card and Stock register. At the end of the time given, ask one participant to show how he completed the bin card and Stock register. Show the correctly completed bin card and Stock register. Check to ensure that all participants have completed the bin card and Stock register correctly for the first product. Answer any questions or make any clarifications. Review the bin cards and Stock register for the other products.

Ask for and answer any questions that the participants might have.

Activity 8: Self-Monitoring for Recording (Question/Answer)-5 mins

ASK the participants to open their Guides to the Self-Monitoring Checklist for Recording. SAY that the checklist is a recommended tool for ensuring that self-monitoring of recording is accomplished regularly.

TELL the participant that they should have received a checklist similar to this one during the generic storekeeping course, and briefly reviews the contents of the checklist.

Remind the participants that another method of self-monitoring is the cross-checking of the various records and forms. Ask the participants which records and which elements can be cross-checked to ensure accuracy. Participant responses can include:

- the closing balances on bin cards and Stock Register should match
- the balances on bin cards/ Stock Register should match what is filled in IRVs
- issue amounts on IRVs should match issue amounts noted on bin cards/ Stock Registers
- received amounts on bin cards/ Stock Registers should match IRV quantities issued

REMIND participants of the importance of self-monitoring and that it provides a means to cross-check one's work and ensure that errors are minimized.

Self-monitoring checklist: Recording

At the time of an issue:

Question	Yes	No	Remark
Did I update the bin cards and stock register at each issue?			
Did I note the amount issued and bring the balance up to date by subtracting the quantity issued from the previous stock on hand?			

At the time of an receipt:

Question	Yes	No	Remark
Did I update the bin cards and stock register at each receipt?			
Did I note the amount received and bring the balance up to date by adding the quantity received to the previous stock on hand?			

At the time of physical inventory:

Question	Yes	No	Remark
Did I update the bin cards and stock register at each physical inventory?			
Did I note any discrepancies on the bin cards and inventory control register, add (for excess) or subtract (for shortage), and bring the balance up to date?			

SESSION 7: REPORTING

Objectives:

By the end of the session, the participants will be able to:

1. Explain reporting mechanism for District store and SDP/ Health Facility
2. Describe three main parts of CLR-15
3. Describe the Monthly Reporting Form for SDP / Health Facility

Time: 45 minutes

Session materials needed:

1. Flipchart paper, markers, tape
2. Multimedia with screen

Documents in Participants Guide:

1. SDP / Health Facility Monthly Reporting and Requisition Form with job-aid, exercise and answer key
2. District Contraceptive Stock Report

Flipcharts or slides:

1. Session objectives
2. SDP / Health Facility Monthly Reporting and Requisition Form
3. CLR-15

Trainer preparation:

The trainer should be well versed in all the concepts of the session and understand how to convey them simply. Trainer should be familiar with all session materials including those in the Participant's Guide.

Prior to starting the session trainer should be sure that all materials needed for the session are ready. If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Introduction	Interactive Discussion	5
2: Introduction to SDP / Health Facility Reporting Form	Interactive lecturette	15
3: Introduction to District Reporting and the CLR 15	Interactive Lecturette	25

Activity 1: Introduction (interactive discussion)--5 min

TELL participants that this session will focus on stock reporting tasks related to district store and SDP / Health facility. Ask participants to tell their experiences on stock reporting of Health and FP commodities by district store and SDP/Health Facility.

Activity 2: Introduction to SDP / Health Facility Reporting Form (interactive discussion)--15 min
Facilitator will tell participants that the service delivery points / health facilities of health and population welfare departments use following format for contraceptive reporting as well as

SDP / Health Facility: _____ Month: _____

S. No.	Contraceptive	Opening balance	Received	Issued	Stock on hand

Requisitioning from the concerned District Offices on monthly basis as per inventory level defined for them. This also include contraceptive stock position in the respective service delivery points. The logistics data generated by the SDPs/health facilities is received on prescribed format and consolidated at the district level.

Ask participants to open the document titled the SDP/Health facility Monthly Contraceptive Report and Requisition form in the Guide. Explain each column in detail with the help of examples.

Inform the participants that we will now do an exercise. Give 5 minutes to read the exercise and remaining 5 minutes to fill the form. Ask one of the participants to read the exercise, so that everyone can understand its concepts. At the end of the time given, ask one participant to show how he completed the reporting form. Show the correctly completed reporting form.

Check to ensure that all participants have completed the report correctly. Ask for and answer any questions that the participants might have.

Activity 1: Introduction to District Reporting and the CLR 15 (interactive lecturette)--25 min
TELL Participants that District Contraceptive Logistics Report summarizes consumption data occurring at district level. From the report, one can figure out the quantities which were received by district and the quantities issued to service delivery points.

TELL participants that the report has three main parts. Part 1 is related to the stock status at the District Store and Part-II and III indicates the stock and sales status respectively 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.

ASK participants to open up their Guides to the CLR 15 District Contraceptive Stock Report and review the 1st section starting with the rows from top to bottom. Ask participants to focus on the far left column titled "District Store" and tell them that it has the following basic indicators in separate rows (for part 1 which is for district store)

1. Opening balance
2. Received from CWH
3. Issued to field
4. Closing balance
 - District store
 - Field
5. Total
 - Expired stock
 - Untraceable stock

Each column is labeled for a commodity, and thus information on each commodity is captured in its specified column.

ASK the participants if they can say who has the responsibility at the District to complete each main sections and when each must be completed. Correct them as needed.

Review where the data comes from for each of these fields.

The 2nd section is completed by the field and it has following indicators

1. Opening balance
2. Received from district store

3. Sold (as commodities are sold at facilities at nominal prices)
4. Closing balance
 - District Store
 - Field
5. Total
 - Expired Stock
 - Untraceable Stock

Each column is labeled at the top with a commodity and information on that commodity is formed in it. Review the main rows in section 2 highlighting the bold subsections.

Ask the participants if they can say who has the responsibility at the District to complete each main sections and when each must be completed. Correct them as needed.

Review where the data comes from for each of these fields.

Finally review the 3rd section of the form explaining the purpose of this section.

Review who has the responsibility at the District to complete each main section and when each must be completed.

Review where the data comes from for each of these fields.

Finally explain how the data from this completed form is actually used. What decisions are made with it and again what its importance is?

SESSION 8: QUALITY ASSURANCE

Objectives:

By the end of the session, the participants will be able to:

1. Define/explain the concept of quality assurance
2. Explain “shelf life” and how it relates to quality assurance
3. Identify two methods for examining products to identify quality problems
4. Identify quality problems through visual inspection
5. Identify the causes and methods for preventing quality problems
6. Identify the consequences of quality problems
7. Take appropriate actions when quality problems are found

Time: 105 minutes

Session materials needed:

- Flipchart paper, markers, tape
- Multimedia with screen
- CW&S “Unusable supplies” video
- Small quantities of health products for visual inspection; see Trainer preparation for details.

Documents in Participants Guide:

- Shelf life of FP products
- Visual Indicators of Contraceptive Quality Problems

Flipcharts OR Slides:

- Definition of “quality assurance”
- Definition of “shelf life”

Trainer Preparation:

The trainer should be well versed in all the concepts of the session and understand how to convey them simply.

Trainer should be familiar with all session materials including those in the Participant's Guide

Prior to starting the session trainer should be sure that all materials needed for the session are ready. If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Special preparation for this session:

For the visual inspection activity: some products should be usable and others damaged or expired (the facilitator might mark a number on each product and keep a list of the numbers which are marked on the unusable products; this will facilitate the process of verifying the participants' responses) For 20 participants, anticipate 6 groups of 3 participants and 1 group of 2 participants. Have for the activity 5 usable products per group (35 products total) and 2 unusable (damaged or expired) products per group (14 products total); each group should be given an assortment of 7 products: 5 usable and 2 unusable. Be sure to include an assortment for each group, i.e., one group should not get two damaged pills, rather 1 damaged pill and one damaged ampoule.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Introduction to the session	Lecturette	5
2: Concept	Interactive Lecturette	10
3: Methods of identifying quality problems	Question/Answer	5
4: Visual indicators of quality problems	Interactive Lecturette	30
5: Causes of damaged products and prevention of damage	Discussion	10
6: Consequences	Question/Answer	10
7: Actions to take, including disposal procedures	Discussion	30
8: Session Summary and Conclusion	Question/Answer	5

Activity 1: Introduction to the Session (lecturette)-5 mins

The facilitator PRESENTS the session title and GIVES the session objectives.

Activity 2: Concept (Interactive lecturette)-10 mins

The facilitator ASKS the participants what quality assurance is (what they understand by “quality assurance”). The facilitator NOTES the participants' ideas and uses them to build a definition/explanation such as “dispense commodities to users before the expiry date and in conditions prescribed by the manufacturer”. The facilitator can SHOW the prepared definition on slide.

Activity 3: Methods of Identifying Quality Problems (Question/Answer) - 5 mins

The facilitator ASKS the participants what the different methods are for identifying quality problems. The participants should respond (or the facilitator can PROVIDE) “visual inspection” and “lab testing”. The facilitator COMMENTS that lab testing is time-consuming and costly, and there are no easily accessible local facilities to do lab testing. Therefore, we will be focusing on visual inspection, which is a method that can be used at the District level.

Activity 4: Visual Indicators of Quality Problems (Interactive lecturette)-30 min

The facilitator TELLS the participants that when using visual inspection, the way that quality problems are identified depends on the kind of product being inspected. For example, quality problems with liquid products may be indicated by a change in color or smell, sediment at the bottom of the bottle (in non-suspension liquids). On the other hand, quality problems with tablets might be indicated by color change, signs of dampness, or a missing tablet in a “course” of pills (similar to a cycle of contraceptive pills, where all of the pills are needed or the treatment is not complete).

ASK participants to identify other visual indicators of quality problems. GET group consensus on the indicators mentioned by the participants and LIST the agreed ideas on the board/flipchart. Ideas may include the following:

<u>liquids:</u> discoloration cloudy sediment broken seal on bottle cracked ampoule/bottle	<u>pills (tablets):</u> discoloration pills crumble pills missing (from cycle/course)	<u>sterile products (including IUDs):</u> tear in packaging parts missing broken or bent parts
<u>light-sensitive products</u> (such as x-ray film): tear in packaging	<u>for various kinds of products:</u> packaging is broken	<u>tubes:</u> tube is sticky contents leaking from tube
<u>latex gloves and condoms:</u> dry/brittle condoms: packaging is sticky condom or lubricant is discolored	<u>any vials:</u> vial is cracked or broken <u>injectable</u> <u>contraceptives: liquid does not</u> return to suspension after shaking	<u>foil pack:</u> perforation in packaging
<u>bulk commodities:</u> pieces stuck together	<u>capsules:</u> sticky	<u>chemical re-agents:</u> change of color

Identifying damaged products (activity):

TELL the participants that they will now have a brief opportunity to practice identifying quality problems through visual inspection. DIVIDE the participants into (approximately) seven small groups (ex.: 6 groups of 3 and 1 group of 2) and DISTRIBUTE to each group a small quantity (e.g., 7) of health products, some of which are usable and others of which are damaged or expired (e.g., 5 usable and 2 unusable). TELL participants that their task is to separate the unusable products from the usable ones. TELL the participants that they will have 5 minutes to do the task.

At the end of the 5 minutes, VERIFY that all of the products which the participants have identified as unusable are actually unusable. ASK the participants to say what indication they had that the product was unusable.

The facilitator can briefly ASK the participants if they used any indicators of quality problems which were not listed on the board/flipchart during the previous discussion. ADD those indicators to the overall list.

Close this portion of the session by ASKING the participants when they should do quality assurance/visual inspection. The participants should respond that quality assurance is done when products are received, when products are issued, and when physical inventory is conducted.

Activity 5: Causes of Damaged Products and Prevention of Damage (Discussion)-10 mins

ASK participants what the causes of damaged products are. The participants might answer from among the following:

- Not following FEFO
- Temperature of the storeroom
- Humidity in the storeroom
- Direct sunlight on the products
- Insects
- Water damage/leakage
- Improper ventilation

The facilitator ASKS the participants what they can do to prevent products becoming damaged. The participants might answer:

- By following FEFO
- By insuring proper ventilation in the storeroom
- By putting shades on the windows to block direct sunlight etc.

The facilitator can SUMMARIZE by REMINDING participants to follow the storage guidelines which we covered earlier; following the guidelines can contribute to less damage to stored products.

Activity 6: Consequences (Question/Answer)-10 mins

The facilitator ASKS the participants what the consequences of quality problems are. The participants might respond: wastage, shortages, national loss, more suffering, risk for patients, lack of therapeutic effect leading to prolonged illness, toxic or adverse reactions, program credibility is damaged, etc.

Activity 7: Actions to take, Including Disposal Procedures (Discussion)- 30 mins

The facilitator ASKS the participants what actions, either immediate or at some point, they take if they find damaged products in their storeroom. Immediate actions should include:

- Separate from usable stock
- Don't supply
- Inform authorities
- Determine and correct the cause of the damage (if applicable)

Additional actions which should be taken include:

- Convene a meeting of the condemnation (standing) committee
- Present a list of the unusable products and show samples
- Committee decides what to do (condemn or not)
- Send decision to higher level for approval
- Receive approval
- Meet and dispose of the products per instructions

EXPLAIN that we are now going to look at a 2 minute video on unusable supplies at CW&S, Karachi. ASK them to pay close attention because there will be some questions at the end.

Show participants the Warehouse video from 11:50 minutes to 13:40 minutes.

After viewing ask the group the following questions based on the video and discuss.

Note: If desired, participants can also be asked to group up in teams of 3 or 4 and write their answers to these questions. If participants are sluggish or sleepy this is a better option as it makes each participate.

- 1) If for any reason, supplies is identified unusable; What immediate actions need to be taken?
 - i. Stops distribution
 - ii. Separate particular lot, batch or any quantity
 - iii. Inform /notify concerned higher authorities
- 2) Who will decide on safe disposal of unusable?
Condemnation committee / higher authorities
- 3) Is there a difference on the fate of unusable products at CW&S and district level?

Not really.

When the quiz is finished ask Participants if they have any comment or question about video and explain if some point is still unclear.

Activity 8: Session Summary and Conclusion (Question/Answer)-5 mins

ASK participants if they have any final questions, and ANSWER any questions which are asked.

Visual Indicators of Contraceptive Quality Problems

Oral Contraceptives:

<p>Do not use the pills in a packet if:</p> <ul style="list-style-type: none">• A pill crumbles when it is pushed through the aluminum backing• The aluminum packaging for any of the pills is broken• The packet is missing pills• Some pills are not the correct color

Condoms:

<p>Do not use condoms if:</p> <ul style="list-style-type: none">• The condom packets are sticky or brittle• Condoms or their lubricants have discolored	<p>Note:</p> <p>Condoms can be damaged by prolonged exposure to sunlight, temperatures over 40°C, humidity, ozone (produced by fluorescent lights, electric motors, smog), or contact with any oil (e.g., mineral or vegetable oils). Chemical products should not be stored in the same warehouse with condoms, as petroleum vapors and various types of liquid solvents damage the condoms.</p>
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IUDs:

<p>Do not use IUD if:</p> <ul style="list-style-type: none">• Sterile packaging has been broken or perforated• The IUD has parts missing	<p>Note:</p> <p>Condoms can be damaged by prolonged exposure to sunlight, temperatures over 40°C, humidity, ozone (produced by fluorescent lights, electric motors, smog), or contact with any oil (e.g., mineral or vegetable oils). Chemical products should not be stored in the same warehouse with condoms, as petroleum vapors and various types of liquid solvents damage the condoms.</p>
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Injectables:

<p>Do not use injectable if:</p> <ul style="list-style-type: none">• Vials are cracked or broken• Contents do not return to suspension after shaking	<p>Note:</p> <p>Vials will remain potent and stable up to the expiry date if stored at room temperature (15-30°C). If contents separate, shake to restore suspension.</p>
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Implants:

<p>Do not use implants if:</p> <ul style="list-style-type: none">• The implant's sterile packaging is broken• Some of the capsules are missing	<p>Note:</p> <p>Implants must be protected from excessive heat and direct sunlight, and must be stored in a dry place.</p>
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Contraceptive Shelf Life

Contraceptive Brand Name	Shelf Life
Lo-Femenal	5 years
Ovrette	5 years
Condom	4 years (USAID)
Copper T	7 years (USAID)
Micro-Gynon	5 years
Micro-Nor	5 years
Conceptrol	5 years
Neo-Sampon	3 years
Depo-Provera	4 years (USAID) 4 years (other)
Norplant	5 years

Note: The shelf life noted for each product is generally applicable. However, as with all health and family planning commodities, the shelf life should always be double-checked and verified using the manufacture and expiry dates of received commodities.

SESSION 9: MONITORING AND SUPERVISION

Objectives:

By the end of the session, all participants will be able to:

1. Define and discuss the purpose of monitoring and supervising
2. Identify logistics activities to be monitored
3. Describe how to conduct effective and regular monitoring and supervision of logistics activities at the District level

Time: 110 minutes

Session materials needed:

1. Flipchart paper, markers, tape
2. Multimedia with screen

Documents in Participants Guide:

1. Monitoring checklist for logistics activities
2. Supervision checklist for visits to health facilities.

Flipcharts or Slides:

1. Session objectives
2. Definitions of monitoring and supervision

Trainer preparation:

The trainer should be well versed in all the concepts of the session and understand how to convey them simply. Trainer should be familiar with all session materials including those in the Participant's Guide.

Prior to starting the session trainer should be sure that all materials needed for the session are ready. If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Introduction to the session	Lecturette	5
2: Definitions	Interactive Lecturette	15
3: Monitoring log activities /use of monitoring tools	Discussion	30
4: Effective supervision defined	Interactive Lecturette	15
5: Characteristics of supportive supervision	Interactive Lecturette	40
6: Session conclusion	Lecturette	5

Activity 1: Introduction to the session (lecturette)- 5 mins

The facilitator introduces the session by giving the session title and session objectives. Remind the participants that there are a number of aspects of monitoring and supervision related to the management of a District Health and Population centers, but that we will be focusing specifically on the monitoring and supervision of logistics tasks.

Remind participants that, in fact, we have already been practicing monitoring and supervision. Ask participants how this has been done. Participants should respond that all of the sample Storekeeper tasks that were presented and discussed included practice of aspects of monitoring and supervision. Tell

participants that we will now have an opportunity to discuss in general the principles of monitoring and supervision, and this will be based in part on the practice that they have already had.

Activity 2: Definitions (Interactive lecturette)-15 mins

The facilitator tells the participants that before we begin discussing monitoring and supervision, it will be helpful if we all have the same understanding of what monitoring and supervision are. Tell the participants that we will divide into small groups to come up with definitions of monitoring and supervision that we can all agree upon and that will serve as the basis for our discussions during the session.

Divide the large group into small groups. Tell the participants that they will now develop definitions as follows: each group will come up with definition of 'monitoring' and 'supervision'. Tell the participants that they will have five minutes to develop their definitions.

At the end of five minutes, ask each group to share their definition of 'monitoring'. Note key words in each definition and compare definitions provided by various groups. Do the same for definition of 'supervision'. Note any key words from the other groups that are relevant to the "final" definition that will be used.

Present the prepared definitions of monitoring and supervision:

Monitoring: checking on a regular basis to ensure that assigned logistics activities are carried out.

Supervision: the process of ensuring that logistics personnel have the knowledge and skills required to carry out their responsibilities effectively.

The facilitator should tell the participants that these are commonly used definitions of monitoring and supervision, especially as they relate to logistics. Comment on the similarities and differences between these definitions and the definitions of the participants.

Activity 3: Monitoring Logistics Activities and use of Monitoring Tools (Discussion)-30 mins.

Remind the participants that we have discussed self-monitoring of logistics activities by the storekeepers during the course. Inform participants that this discussion will be applicable to self-monitoring as well as monitoring by others, such as supervisors and higher level officials.

Tell the participants that we will now quickly review the logistics activities that they should be monitoring at their workplaces. Tell the participants that they will have five minutes to propose a list of logistics activities that they need to monitor on a regular basis. Post a flipchart with the title "Logistics activities to monitor".

Tell the participants to break into small groups by worksite team and to work as a team to propose logistics activities to monitor. At the end of the five minutes, ask participants to propose items to include on the list. Note the participants' responses on the flipchart. For each item mentioned, the facilitator can ask the participants why it is important to monitor that aspect, as well as some of the problems they might be looking for when monitoring.

The final list should include at least the following:

- Review of all records and reports, including indent and issue quantities.
- Stock levels of all products, including family planning and health commodities.
- Storage conditions of all products.
- Any other problems or issues that exists or arises and that needs to be addressed.

The facilitator tells the participants that we have already seen some examples of monitoring logistics activities. Ask the participants what those tools are. Participants can mention the various checklists for specific activities and the job aids for specific tasks. The facilitator asks the participants what other tools are available to assist in monitoring logistics activities. For each tool mentioned, ask the participants how the tool can be used to monitor.

Activity 4: Effective supervision defined (Interactive Lecturette) -15 mins

Refer back to the definition of supervision. Ask participants to say why supervision is important. Participants should respond that supervision is important because it is through supervision that we can ensure that personnel at each level are carrying out their assigned logistics responsibilities adequately.

Remind participants that if supervision is to be done effectively, then the person doing the supervision must possess the same knowledge and skills as the person doing the job. Explain that that is the reason why all of our sessions during this training have been skills focused.

Explain that while monitoring can be done in the office, by reviewing reports, for example, effective supervision can only be done with the person who is performing the logistics tasks. This means that supervision should be done during each site visit or during any direct contact with the person doing the tasks.

Activity 5: Characteristics of Supportive Supervision (Interactive Lecturette)-40 mins

Tell the participants that we will now spend a few minutes sharing ideas about supportive supervision.

Ask the participants what the distinction is between “supervision” and “supportive supervision”. Participants can respond that supportive supervision implies a positive atmosphere and an element of assistance and teamwork.

Tell the participants that we will explore supportive supervision through two brief small- group discussions. Tell the participants to divide into small groups for 3 to 4.

Tell the participants that the first question they should consider in their groups is: “What type of support do you expect from your supervisor?” Tell the participants that they should answer the question in terms of themselves and their own supervisor. Tell the participants that they will have 10 minutes to list their points.

At the end of the 10 minutes, rotate through the groups: ask the participants to share the points they raised in their small groups. List the main ideas on flipcharts.

Once the main ideas have been listed, ask the participants to compare the three lists and to make any observations. Participants should be able to observe that there are common points found on the various lists. Ask the participants what we can conclude from this. Participants should respond that all participants have a similar view of supportive supervision and similar expectations of their supervisors. Our hope is that these points will be kept in mind when doing supervision.

Ask for and answer any questions the participants might have at this time.

Tell the participants that we will now look at the second of our discussion points about supportive supervision. Tell the participants to remain in their small groups. This time they are to take ten minutes to list specific activities that they think should happen during a supervisory visit in order to make it a useful or effective visit; they can include things the supervisor should do and things the Storekeeper should do.

At the end of the ten minutes, ask the groups to share some of their ideas. List two or three of the activities on flipchart. Ask the participants if they find any similarities. Comment that we see again some similarity in what everyone thinks should happen to make a supervisory visit useful and effective.

Conclude this portion of the session by saying that our hope here, too, is that these kinds of activities will take place during supervisory visits in order to make them as useful and effective as possible.

Ask for and answer any questions the participants have at this time.

Activity 6: Session Conclusion (lecturette)-5 mins

Summarize the session by reviewing the session objectives and asking the participants to cite the main points

that were covered in relation to each of the objectives. Remind the participants that we have seen a number of important ideas concerning monitoring and supervision; remind the participants that everyone should do monitoring to ensure that tasks are completed correctly.

SECTION II: VACCINE & COLD CHAIN EQUIPMENT

SESSION 1: EPI LMIS FORMS

Objectives:

By the end of this session participants will be able to:

1. Identify key components of the EPI LMIS forms used in the system
2. Explain where key data is gotten from for each form
3. Complete the EPI LMIS forms as required of their position

Time: 185 mins (3 hrs 5 mins)

Session materials needed:

1. Flipchart paper, markers, tape
2. Multimedia with screen

Documents in Participants Guide:

1. EPI LMIS Forms with job aids
2. Proper Steps for Receiving Vaccine Deliveries

Flipcharts or Slides:

1. Session objectives
2. EPI LMIS Forms

Trainer Preparation

Review each form and their job aid. Anticipate questions which may come and be ready to clarify best procedures for areas that still may be disputed. Always confirm page numbers in documents that will be used before starting sessions in case documents change

- The trainer should be well versed in all the concepts of the session and understand how to convey them simply.
- Trainer should be familiar with all session materials including those in the Participant's Guide
- Prior to starting the session trainer should be sure that all materials needed for the session are ready.
- If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Sessions Introduction	Lecturette	5
2: Introducing the A-I and A-II Forms	Activity and lecturette	40
3: Receiving Vaccines	Lecturette	25
4: Completing the A-II form Exercise	Exercise	30
5: Form B Consumption and Requisition	Answer/Question	30
6: Form B Consumption and Requisition SINDH	Activity and lecturette	30
7: Form C Consumption & Requisition for SIA's	Activity and lecturette	25

Activity 1 Session Introduction (Lecturette)-5 min

Understanding how to correctly complete the EPI LMIS forms used in the system is key to getting the right data in the right hands and to ensure that the six rights for vaccines are met. In this Session we will look at how to complete the following forms

Form A-I: Stock Issue & Receipt Voucher for Routine Immunization
Form A-II: Stock Issue & Receipt Voucher for SIAs
Form B: Consumption & Requisition Form for Routine Immunization (All provinces except Sindh)
Form B: Consumption & Requisition Form for Routine Immunization (Sindh only)
Form C: Consumption & Requisition Form for SIAs

Activity 2 Introducing the A-I and A-II Forms (Activity and lecturette) -- 40 minutes

REMIND participants that form A-I Stock Issue & Receipt Voucher for Routine Immunization is for issuing and receiving commodities between the Federal and Provincial and District levels, while the A-II form is for the same task but between District and Tehsil and Union Council levels.

We will review how these are used so everyone clearly understands the components of each and will be able to complete them and use them as needed.

ASK participants to pair up with the person at their table and open up their Guide to Form A-I. Ask them to take 2 or 3 minutes to review the form and the following job aid.

Next ASK them to review and compare Form A-II to A-I which follows in their Guide. Give them a minute to look and then ask what the difference is between these forms besides who completes which parts.

They should respond:

- Form A-1 is meant for Routine Immunization activities while Form A-II is for Campaigns only.
- that there is no Unit Cost column in A-II because the District does not have to deal with this data.

Before going any further ask each pair to have one Form A-I and other to open Form A-II. In this way they can quickly compare the differences and similarities.

EXPLAIN that you will go through this section by section and column by column to ensure that they understand both documents completely. When we are finished reviewing we will do a simple exercise to apply what has been learned.

Note that since Form A-I is used to issue stock from the Federal and the Provincial levels the districts only become involved in completing which sections ...?

They should answer columns I, J, and K only when they receive products from one of these levels.

And when completing Form A-II the Districts and Tehsils complete which sections?

They should answer columns B-G

The Tehsil and Union Councils then complete columns H, I, and J.

ASK participants what else the receiving EPI stores have to do besides complete these columns when they receive goods.

They should say sign the RECEIVED section at the bottom of the page.

Confirm if that's all EPI stores have to do.

Participants should respond No! Those receiving commodities must also VERIFY that what they received was correct and in what condition it was in especially for vaccines!

Explain that it is critical to verify the condition of stock, especially vaccines when they are received. No signature should be given until stock is carefully inspected.

Now lets review the form carefully.

ASK participants what the purpose is of the information fields at the top of the form. They should respond that its to identify where the stock is coming from and where it is going to and on what date.

For instance A-I may read Supply From *Federal EPI Store* and Issued to *Punjab EPI store*
Next come each of the columns. Note that the first six columns: S. No, Products, and Columns A-D in both forms are all the same. Allow participants a moment to verify that for themselves.

Note that the data for Column B Manufacturer and Column C Batch # are found on multiple sources including the supplier invoice or the receipt/transaction form as well as the carton, box, and vaccine vial itself.

While data for Column D Expiry can be found where?

The expiry date is also certainly on the vial and should be on the outer packaging.

For A-I, Unit Cost (Column E) is found on the purchase order and should already be filled in and can be transferred to A-II as needed

Under Issue Quantity we next have Vials/Nos – this is simply how many of each product the issuing warehouse / store sent

Next comes Total Doses (G for A-I and F for A-II) How is this found?

Participants should reply that you multiply number of doses per vial in column A with number of vials issued in the previous column (F for A-I and E for A-II)

Note that this formula is written in the column heading if they ever forget

VVM Stage is Column H or G respectively. Note that there are four choices that can be written here. 1 & 2 are usable vaccines while 3 & 4 are not usable vaccines. When receiving, the form will come pre-marked, and an important part of inspection is verifying that the vaccines do match how they are presented on this form.

However in form A-II the Districts will have to make this determination when sending and the Tehsils and Union Councils will have to confirm the conditions when they receive them. There will be a session on reading the VVM later in this training.

Ask if there are any questions at this point and review as needed.

We now come to the final three *Receiving Quantity* columns. In the Vials/Nos column we verify the quantity of the item we received.

The Total Doses column (J for A-I, and I for A-II) is calculated by following the column formula at the top and as suggested in our job aid which reads

“To calculate multiply number of doses per vial given in column 'A' with number of vials received (I for A-I and H for A-II)

For example if we were a district recived 5 vials of BCG we multiply column A, which for BCG is 20, times 5, how many we received in Column I and we get 100 doses (5 x 20).

If we were a Tehsil what would we put if we received 3 vials of measles? $3 \times 10 = 30$ doses. (We multiply column A by Col H)

Finally we confirm the VVM stage for all the vaccines we received.

Activity 3: Receiving Vaccines (Lecturette)--25 min

Before we go too much further let's take a moment to review the important steps for how to properly receive vaccines. There are many similarities to receiving other goods but let's review how it is done for vaccines. ASK participants to call out the ways that receiving vaccines is different from receiving normal goods. Put their answers on the flip chart. Gently correct any erroneous responses.

When finished collecting ideas thank them for their answers. TELL the participants that considering what we know let's look at what the EPI Program suggests for receiving vaccines and see if we missed anything.

TELL Participants that they can follow a simplified list of this in their Guides in a document titled

Proper Steps for Receiving Vaccine Deliveries

As EPI Program says, and as we know, proper vaccine storage and handling is important from the moment the vaccine arrives at the facility. All office staff should be informed of who to notify when a vaccine delivery has arrived. This is extremely important for receptionists or other front desk staff since they are often the first to know that vaccines have been delivered.

At the national level the store in-charge must keep a record of the details and arrival conditions of ALL vaccine deliveries received at the store. This is done using a special document known as a Vaccine Arrival Report (VAR), which is required in addition to the normal receipt issued whenever supplies are delivered. A Vaccine Arrival Report is required for EVERY vaccine shipment, whether it comes from a foreign manufacturer, or from within the country. The document provides vital information for the health department / EPI program, but will also be essential if this vaccine was provided through a program of technical assistance or other donor support to the program.

Vaccines should be stored at the proper temperature immediately upon arrival. The shipping container and its contents should be examined for any evidence of damage during transport. The contents should be cross checked with the packing slip to be sure they match.

Both heat and cold temperature monitors/indicators should be checked upon delivery following instructions on the monitors for reading and reporting. If a monitor indicates possible adverse temperature notify the proper authority for instructions. The shipment date should be checked to determine how long the package was in transit. If the interval between shipment from the distributor and arrival of the product at the facility was more than 48 hours, this could mean the vaccine has been exposed to excessive heat or cold that might alter its integrity.

If there are any discrepancies with the packing slip or concerns about the vaccine shipment, the vaccines should be stored in proper conditions, but segregated and marked "Do NOT Use" until the integrity of the vaccines is determined. Contact either the facility shipping the package or immunization program depending upon policy.

The contents of each shipment should be recorded on an inventory log (stock record). This log should include: The name of each vaccine, the number of doses for each vaccine received, the date it was received, the condition of the vaccines upon arrival, the name of the vaccine manufacturers, the lot numbers, the expiration dates for each vaccine, and any action taken as a result of a question of vaccine integrity.

TELL the participants that we now want to look at this in terms of our own facilities.

[Note: To get an honest discussion going and sharing of experiences it is important for the trainer to show no negative judgment towards any answer that is received when asking the following questions. Ensure participants that these questions are to help us learn from each other how to overcome any obstacles we are facing so we can prevent the loss of vaccines and do our jobs even better].

ASK participants which of the receiving steps, as stated in their Guides, is often the most difficult to do? Try to get a consensus of the most difficult steps then discuss why they are difficult. Brainstorm solutions and take suggestions of participants who have ideas to share.

Next which of the receiving steps is probably most neglected? Have participants share their experiences. Discuss why steps are neglected and what can be done about it. Is it a lack of training, resources, knowledge, time, understanding the purpose of it, or something else? Determine the reasons.

If no one offers anything then ask if it can be assumed that each facility, represented in the room, has established procedures in place that closely resemble these and that they are regularly followed when receiving vaccines. Discuss as needed with the intent to help participants overcome any obstacles to doing this correctly and consistently.

Thank the participants for their participation and sharing of ideas.
We will now continue with where we left off on the A-I form.

Activity 4 Completing the A-II form (Exercise)-30 min

Tell participants that we are now going to do a simple exercise of completing the A-II form. In their Guides they will see a document titled Exercise for Completing the A-II Form. Please open to that page and insert the sample data into the blank A-II form which follows.

Tell the participants to work alone and that they have 15 minutes to do this. When we are finished we will review the exercise. Answer any questions the participants may have and then ask them to begin.

As the participants are working on the exercise move through the room to ensure they have found the materials they need and understand the instructions.

When time is up review the correct answers by using the Trainers Answers for this exercise below. Note that there is data for both the issuing and receiving facilities to complete. Notice where participants had troubles and review those points. Determining total doses may be the hardest column to enter the correct data for so review that if necessary.

Ask how many copies of the A-II the sending facility includes with the products when they are shipped. Participants should respond they send 2 and keep one.

The receiving facility for both forms does what?

They keep one copy and send one back to the issuing facility to confirm delivery status

Ask if there are any questions on how to complete this form. Remind participants that the Guide has detailed job aids for completing either form.

If they are ever in need of clarification they can turn to that for assistance

Trainer's Answers for A-II Form Exercise

Supply from (District/Tehsil/Taluka): Karachi Issued To (Tehsil/Taluka/UC):
Saddar Date: Jan 2, 2016

S. No	Products	Doses per vial	Manufacturer	Batch #	Expiry Date (MM/YY)	Issue Quantity			Receive Quantity		
						Vials/No.	Total Doses (F x E)	VMM Stage	Vials/No.	Total Doses (I x H)	VMM Stage
1	mOPV1	20	Novartis	142722	6-16	300	6000	G	300	6000	J
2	bOPV	20	Sanofi France	L5092-1	7-16	400	8000	2	395	7900	2
3	tOPV	20									
4	Measles	01	Serum India	004F4087 004F4077	9-16	1000	1000	1	1000	1000	087 = 1 077 = 2
5	DIL Measles										
6	TT	10									
7	AD Syringes 0.5 ml										
8	Recon. Syringes (5 ml)										
9	Safety Boxes										

Note: Use blank rows, if needed to add more than one batch received for one product/new products

Issued by – Name & Designation: <u>Mohammad Abbas</u> Store Name: <u>Karachi South</u> Signature & Date: <u>Mohammad</u>	Received by – Name & Designation: <u>Tariq Siddiq stores manager</u> Store Name: <u>Saddar Central</u> Signature & Date: <u>Tariq Siddiq</u>
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Activity 5: Form B Consumption and Requisition (Answer/Question)-- 30 minutes

Now we will look at the Consumption and Requisition for Routine Immunization B forms next. What are they used for?

Participants should respond for tracking immunization totals

Let us cover some of the basics first.

To help answer the following questions ask participants to open their Guide to Form B which follows the A-II form that we were just looking at.

ASK participants to take out a sheet of paper and write their answers on the following questions. This will not be collected and we will review the answers afterwards together. No one has to see your answers. Number your paper from 1-8.

Q # 1: Who completes this form and why?

Answer: Health facility / UC, EPI centers

Q # 2: Where does the Opening Balance for this form come from?

Answer: The closing balance of the previous month and comes from the Stock Register.

Q #3: Where do we get the data on the children who were vaccinated?

Answer: Consumption Records. Vaccinated children are recorded in EPI permanent/daily registers and vaccinators prepare the monthly consumption report

Q #4: Where do I find how many vials were used?

Answer: These are recorded in stock registers and monthly consumption reports

Q #5: How do I determine my unusable vials?

Answer: Check the stock register and monthly consumption report

Q #6: Columns B-I are complete by?

Answer: The Reporting Centers

Q # 7: Column J *Replenishment* is completed by?

Answer: By the respective stock issuing EPI store (see steps 5 and 16 in the job aid)

Q # 8: How often is this completed?

Answer: Monthly – by the 10th of the month

Now review the answers together and ask participants to grade their own papers. ASK for group responses to each question. Acknowledge the correct answers given and provide answers which participants don't know. Allow for discussion and clarification on any points where participants had trouble.

When finished explain that if they had...

8 answers correct you get 100%

7 answers correct you get 90%

6 answers correct you get 80% and so forth.

Optional - The trainer may ask for a show of hands who got 100 or 90%. Applaud those who did and encourage those who did not get high marks to review the job aid as needed or ask for further assistance when needed.

Activity 6: Form B Routine Immunization Monthly Vaccination Report SINDH (Activity / Lecturette) - 30 min

Note: The following form is Sindh focuses.

Explain that there is another version of this form for Sindh which looks quite differently from the other B form. ASK participants to look at a copy of this in their Guides along with the corresponding job aid. Give them a few minutes to do so.

When most participants have finished reviewing these documents give them the following instructions to do the exercise:

Working in pairs, follow the job aid and insert the data which is in parenthesis after each step under the Routine Immunization section. Only the data for this section of the Report is used for this exercise.

Give participants 20 minutes to do this. If most pairs are finished before this time then proceed with processing sooner.

When time is up review the answers with the participants which are shown in the Trainers Answers on the Report which follows. Allow for participants to provide the answers if time is available. Notice where participants had problems and address these.

Point out that many errors are caused by careless mistakes so we should always check our work twice.

Before concluding be sure that participants understand that the data for children vaccinated by age comes from the permanent and daily registers and the monthly routine immunization / Vaccination report.

Activity 7: Form C Consumption & Requisition Form for SIA's (Activity / Lecturette) - 25 min
ASK the participants to take 3 or 4 minutes to review Form C and its job aid in their Guides.

When they are finished tell them that we will do an energizer quiz.

Here are the instructions.

Please stand and remain standing for the duration of the quiz.

If you think the answer is true they should put your arms out to make a T shape. (Demonstrate for participants.)

If you think the answer is false put both arms stiffly out in front of your like Frankenstein. (Demonstrate for participants.)

You may keep a copy of the Form C open on your desk but no job aid copy can be visible

We will rapidly go through each question and then review the answers at the end together. Answer any questions before starting. (This is meant to be fun and get participants moving a bit). Be sure no table has an open job aid before starting.

Q 1: This is a transaction form for SIAs
False it's a Consumption and Requisition form for SIAs

Q 2: This form replaces 4 previous forms
True – when reviewing answers see who can name them:
1. Monthly consumption reporting form
2. Provincial Vaccine Requisition Form

3. Divisional/District/Sub-District Vaccine Requisition Form
4. Union Council (EPI Center) Vaccine Requisition Form

Q 3: When completing this form the data for the *Received* column comes from the issues and receipt voucher and stock register

True

Q 4: The opening balance for this is often zero because SIAs often don't have enough stock to get them through their reporting cycle

False its zero because they are for campaigns

Q 5: Unlike the other forms this only two carbonized copies are needed for this form

False there are three – ask participants to identify who gets each copy

Q 6: EPI center will send the requisition to their district by completing columns B-G at least 3 weeks prior to the SIA

False two weeks prior

Q 7: The District fills out the report withing one week of the SIA

True

Review the answers with the participants and clarify areas where they had any problems.

Before closing ask if anyone can come up with a challenging T/F statement of their own to ask the others.

Allow participants a minute to come up with a few further questions to extend the value of this exercise.

Be sure answers are satisfactory to the whole group but understand that there is no need to get lost and waste time in minute details that don't really matter to using the form correctly. The trainer should use their best judgement to know how far such conversations can go and when to cut them off.

Thank them for their participation.

SESSION 2: GOOD STORAGE PRACTICES

Objectives:

By the end of this session participants will be able to:

1. Identify basic Cold Chain storage principles
2. List basic responsibilities for those working with vaccines and Cold Chain equipment
3. Follow basic steps for storing vaccines in refrigerators
4. Explain how to pack a vaccine carrier and cold box

Time: 120 mins

Session materials needed:

1. Flipchart paper, markers, tape
2. Multimedia with screen

Documents in Participant's Guide:

1. The Cold Chain System
2. Vaccine storage Equipment
3. Cold Chain Equipment and its use

Flipcharts or Slides:

1. Session objectives
2. Cold Chain System

Trainer Preparation

The trainer will need to rehearse the steps for properly packing a cold box or vaccine carrier. The following equipment will also be needed: cold box, ice packs, and vaccine boxes or empty ampoules, diluents, thermometer (or representation of one).

- The trainer should be well versed in all the concepts of the session and understand how to convey them simply.
- Trainer should be familiar with all session materials including those in the Participant's Guide
- Prior to starting the session trainer should be sure that all materials needed for the session are ready.
- If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Introduction	Lecturette	10
2: Storage Equipment	Interactive Discussion	10
3: Storage Basics	Brainstorming	30
4: Personnel and Responsibilities for Vaccines	Lecturette	25
5: General Rules for Using Vaccine Refrigerators	Activity and lecturette	20
6: Packing a vaccine carrier – Demonstration	Activity and lecturette	30
7: Summary Points	Conclusion	5

Activity 1 Introduction (Lecturette)-10 Min

TELL the participants that we will now talk about storage of vaccines. What are some of the ways that storing vaccines is different from regular commodities?

1. Stock must be consistently kept at a cold temperature
2. Shelf life is much shorter than most other commodities
3. Unused portions of vials must be thrown out if not used within the same day

TELL participants that vaccine management includes proper storage and handling procedures.

EXPLAIN that because vaccines are fragile they must be maintained at the temperatures recommended by the manufacturers. They must also be maintained at the appropriate levels all the way from the factory to the recipient. If they are not they lose efficacy. It can be worse to give someone a bad vaccine than to not vaccinate at all. ASK why this is?

People can still get sick and lose faith in the program

Additional vaccines may be required causing additional trips to the clinic and complications

Vaccines are always stored in which two types of equipment based on their properties and temperature needs?

Freezers or Refrigerators. If being transported they may be put in a cold box or a vaccine carrier as well.

This is a District level training but which vaccines do you think must be stored in freezers? The trainer can explain:

OPV, Measles and Mumps vaccines should be stored at in a continuously frozen state at the manufacturer recommended freezer temperature until administration. These vaccines should be stored between -15 to -25°C.

The measles, mumps, rubella vaccine (MMR) can be stored either in the freezer or the refrigerator. Storing MMR in the freezer with MMRV may help prevent inadvertent storage of MMRV in the refrigerator.

What do you think gets stored in refrigerators?

All inactivated vaccines including DPT, DT, Td, Hepatitis B and Pentavalent require refrigerator storage temperatures between 0°C and 8°C, with a desired average temperature of 4°C.

In this session on Storage we will look at basic rules for storing vaccines with consideration to equipment, roles for keeping vaccines properly stored and maintained, and how to properly pack a vaccine carrier and cold box.

Activity 2 Storage Equipment (Interactive Discussion)-10 Min

TELL the participants that we will now talk about storage equipment for vaccines. What are some of the ways that storing vaccines is different from regular commodities ASK the participants to open the Guides and read the document titled "Equipment for Vaccine Storage". Give Participants five minutes to do this.

When they are finished lead a discussion based on the following questions. Allow participants to contribute to these and ask questions as they need.

- Q 1: What are the 2 major requirements for vaccine storage cold chain equipment?
- It must ensure optimum temperature conditions for vaccine storage all year round;
 - It must be large enough to hold the maximum vaccine stock to be stored at the level of the cold chain where it will be used.

- Q 2: What equipment is normally used at the district level?
- medium capacity top-opening or “ice-lined” refrigerators (ILR);
 - medium capacity top-opening freezers;
 - upright household two-compartment refrigerator/freezers

- Q 3: What equipment is normally used at the health facility level?
- small “ice-lined” refrigerators;
 - upright household two-compartment refrigerators/freezers;
 - small top-opening freezers

Activity 3 Storage Basics (Quiz)-30 Min

ASK the participants to open the Guides and read the document titled “The Cold Chain System”. Give Participants ten minutes to do this.

When they are finished lead a discussion based on the following questions. Allow participants to contribute to these and ask questions as they need.

- Q 1: What are the 3 elements that make up a cold chain system?
1. Personnel, who use and maintain the equipment and provide the health service;
 2. Equipment for safe storage and transportation of vaccines; and
 3. Procedures to manage the program and control distribution and use of the vaccines.
- Q 2: According to the typical cold chain system how many steps does it pass between the Manufacturer and the District?
1. Airport
 2. Federal EPI Store
 3. Provincial EPI Store
 4. Ground transportation along the way
- Q 3: What is the recommended temperature during transportation from one level to next?
all vaccines must be maintained at a temperature between +2° and +8°C.
- Q 4: How long can OPV, Measels, BCG, Hep B, Pentavalent, PCV10 and TT be kept at the District level?
Up to one month (at a temperature of +2° and +8°C.)
- Q 5: At what temperatures do vaccines need to be stored at the District and lower levels and transported at?
Between +2 and +8 Celsius
- Q 6: As with other stock when receiving or doing physical inventories its important to always to do at least what two things?
Check expiry dates and rotate stock
- Q 7: What 3 areas are NOT acceptable for storing vaccines in refrigerators?
Doors, salad trays, against evaporator plates
- Q 8: How can we tell if the potency for a vaccine is good enough to use?
Look at the VVM
- Q 9: When color of VVM changes to indicate the damage to vaccine potency?
If the vaccine is exposed to temperatures above +8°C, the indicator progressively changes color, and gives health staff an immediate warning that the vaccine has been damaged.

Q 10: How much vaccine Buffer stock be kept at district and below level?

Equal to one month requirement.

Q 11: Where should diluents be kept?

If diluent is packaged with the vaccine, store the complete packaged product in the refrigerator. If diluents are supplied separately from the vaccine, store them in the refrigerator if there is adequate space. If there is not adequate space, move the diluents to the refrigerator at least 24 hours before they are needed so they are cooled.

Activity 4: Personnel and Responsibilities for Vaccines 25 minutes

ASK participants if they know who is responsible for maintaining the cold chain equipment at their facility. Is there one or more persons with this specific responsibility? If not such a person should be identified and receive training as needed.

It is everyone's responsibility to help maintain equipment even with a simple effort to notify the right person when something seems wrong. As when we do physical inspections of our stock we should be doing the same for our CC equipment, even with simple vaccine carriers. However it is best if the larger responsibility rests with an identified person.

A DSV or TSV along with EPI store keeper is the primary vaccine coordinator who is responsible for ensuring that vaccines are stored and handled correctly. Ask the participants what responsibilities this person(s) should have. Note their answers on a flip chart. Get them to think about everything that is required to properly store and maintain vaccines.

When they have finished compare their list to the following list. Note ones that were not mentioned.

1. Ordering vaccines;
2. Overseeing proper receipt and storage of vaccine shipments;
3. Organizing vaccines within the storage unit(s);
4. Temperature monitoring of the storage unit(s) at least twice daily;
5. Recording temperature readings on a log;
6. Daily physical inspection of the storage unit(s);
7. Rotating stock so that vaccine closest to its expiration date will be used first;
8. Monitoring expiration dates and ensuring that expired vaccine is removed from the storage unit(s) and not administered to patients;
9. Responding to potential temperature excursions;
10. Overseeing proper vaccine transport;
11. Maintaining all appropriate vaccine storage and handling documentation, including temperature-excursion responses;
12. Maintaining storage equipment and records;

ASK participants if they realize that there were so many responsibilities for maintaining vaccines properly.

ASK the participants if there are there any tasks they mentioned, or which are on this list, that they would like an explanation for or seem unnecessary. Address these as needed.

EXPLAIN that the point of this training is to help them do their jobs better so it is helpful if they can share their true concerns or questions so they can be addressed for fullest understanding.

Are there any tasks mentioned that are not being done at your facilities? Address these with the participants helping them to see the importance of doing them or helping them think through how to make this a part of their work.

All personnel who handle or administer vaccines should be familiar with the storage and handling policies and procedures for their facility. This includes not only those who administer vaccines, but also anyone who delivers or accepts vaccine shipments and anyone who has access to the unit(s) where vaccines are stored.

These policies and procedures should be available in writing as a reference for all staff members. Vaccine storage and handling training should be provided to all new personnel who handle or administer vaccines, including temporary staff. Continuing education for staff is essential when new vaccines are stocked and when there are any changes to the storage and handling guidelines for a particular vaccine. Immunization programs often have good resources for staff training.

Activity 5 General Rules for Using Vaccine Refrigerators - 20 min

TELL participants that we will now review how to load vaccines in a front loading household refrigerator. This is often the most typical type of equipment used to keep vaccines cold at facilities beyond the provincial level. Therefore its important to understand the basics of storing vaccines in them correctly.

ASK participants to open their Guides to the document titled General Rules for Using Vaccine Refrigerators. Give them 5 minutes to read this document. Encourage them to underline or highlight key areas for themselves.

When time has finished tell them that we will now do a pairs energizer. The rules are as follows.

Each participant pairs up with another person – preferably the person next to them at their table. Ensure everyone is paired up and sitting next to each other. If there are an odd number the extra person can do this on their own or join with another group.

Explain that the trainer will read out a series of True or False statements. If the pair believes the statement is True they both stand. If they believe it is False they both sit. But they must decide fast as we will go through the questions quickly. Teams must answer the questions together. One cannot stand and the other sit or you will be disqualified from the game. (Make a joke of this. The exercise is meant to be fun).

We will review the answers after all the questions have been asked.

ASK if there any questions before starting. TELL participants that we begin the quiz with everyone standing.

Read the following questions fairly quickly noting which ones the most teams get wrong or seem confused on.

- 1) The rules that you just read applied to only specific types of health facility refrigerators (False – to all types)
- 2) Even though space may be limited it is best to store items with space between them so air can circulate between them. (True)
- 3) One must remove diluents and vaccines from their cartons to ensure better cooling (False – they can remain in cartons but must be labeled properly)
- 4) Diluents should be stored along with the vaccines in the fridge when there is room (True)
- 5) If there is not adequate space for diluents they should be put in the fridge 24 hours before they are needed. (True)
- 6) Place VVMs with the most heat exposure closest to the cooling coil or evaporator panel to help keep them the coolest (False - They should be kept separate and used first)
- 7) You should always use the vaccines with the most recent expiry date no matter the color of the VVM (False – vaccines with the darkest VVMs should always be used first)
- 8) Do not keep reconstituted vaccines for more than 6 hours or after the end of an immunization session (True)
- 9) It's OK to keep food or drinks in the vaccine refrigerator as they help hold the temperature steady (False – never!)
- 10) Extra Credit Question – It's a good idea to keep unfreeze ice packs / sealed water bottles at the bottom of the fridge (True – helps to stabilize temperature especially when there are outages)

After reading the questions have participants stay standing for the review. Review each question one by one

asking participants to explain the reasons for the answers. Clarify further the questions that participants got wrong or seemed uncertain about. This will help reinforce their own understanding of the information. Finally, before closing, ask participants how it was trying to do this with a team member. Have them share what they thought. Congratulate everyone on a good job.

Activity 6 Packing a Vaccine Carrier-Demonstration - 30 min

Trainers Note: For this activity if you do not have all the material improvise with what you can find to represent the items. The point is to show the steps involved.

Tell participants that a common task that they must know how to perform and train is the proper way for packing a cold box and a vaccine carrier. Explain that as with other elements of proper cold chain management this has its own specific set of steps that must be followed. Ask how many participants have packed cold boxes or vaccine carriers.

Note that the main difference between packing a cold box and a vaccine carrier is that with the vaccine carrier the diluents for freeze dried vaccines must be packed together with the vaccines.

Tell participants that they can follow along on this in their Guides. This is always available for them to use as a job aid when needed.

Trainer should follow the instructions as stated in the Guide under How to load a cold box. Follow these directions but along the way skip one step or do it wrong to see if the participants notice it. (For instance you may throw the thermometer in at the bottom of the box.) If participants don't notice that you have done something incorrectly keep going through until the end of the demonstration. Then at the end ask how you did. Did I do everything correctly? Review the steps and point out where you went wrong if they didn't notice.

Next, ask one of the participants who has done this before if they can demonstrate the correct steps for loading a cold box or vaccine carrier. Have him/her go slowly through each step to ensure that everyone is following and understands the importance of each step. Thank this person when they are finished.

Before closing this activity briefly review the proper guidelines for preparing icepacks for use. This follows in the Guide.

Activity 7 – Summary Points: 5 min

Point out the Guide provides a helpful summary of tips for handling vaccines at both the District and Facility levels. Review these key points. The trainer can state some directly while others can be made questions to see if participants understand these items. Mix them up as needed.

District Summary Points:

1. At the district level keep vaccines for a maximum of 1 month.
2. Store OPV, measles and mumps vaccines in freezers at -15 to -25 o C.
3. Store DPT, DT, Td, BCG, Hepatitis B and Pentavalent vaccines in refrigerators at 0 to +8 o C.
4. Do not put too large quantities of unfrozen icepacks into a chest freezer which contains OPV, measles or mumps vaccines; use the icepack freezer to freeze them first, and then transfer them

Facility Summary Points

1. In health facilities, keep vaccines for a maximum of one month.
2. Store all vaccines in the refrigerator at 0 to +8 o C.
3. Place OPV, measles and mumps vaccine closest to the evaporator.
4. Place DPT, DT, Td, BCG and hepatitis B on lower shelves, away from the evaporator;
5. Do not keep vaccines in the door shelves.
6. Keep sealed water bottles in the bottom of the refrigerator.
Keep diluent next to its vaccine or mark it clearly if it is placed on a different shelf.

SESSION 3: COLD CHAIN MONITORING CARDS AND VACCINE VIAL MONITORS (VVM)

Objectives:

By the end of this session participants will be able to:

1. Explain how the Cold Chain Monitoring Card works
2. Explain how to read the VVM and take appropriate actions
3. Tell how to do Shake Test

Time: 70 minutes

Session materials needed:

1. Flipchart paper, markers, tape
2. Multimedia with screen

Documents in Participants Guide:

1. Cold Chain Monitor Card
2. Vaccine storage Equipment
3. Cold Chain Equipment and its use

Flipcharts or Slides:

1. Session objectives
2. Cold Chain Monitor Card

Trainer Preparation:

- Have an internet connection to a power point to show the video:
- How Does a VVM Work? Review the video ahead of time and know the contents of the session very well.
- The trainer should be well versed in all the concepts of the session and understand how to convey them simply.
- Trainer should be familiar with all session materials including those in the Participant's Guide
- Prior to starting the session trainer should be sure that all materials needed for the session are ready.

If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: The CCM and Pairs	lecturette	30
2: How Does a VVM Work?	Activity and lecturette	30
3: What is Shake test?	Interactive lecturette	10

Activity 1 The CCM and Pairs (Quiz) – 30 min

TELL participants that in this session we are going to look at Cold Chain Monitoring Cards called CCMs and Vaccine Vial Monitors or VVMs. The more important of these two for the district level is the VVM but its helpful to also understand the CCM and how they work.

We will start by first reviewing what a cold chain monitoring card is. Can anyone share their understanding of what this is and how it works? Take responses and put key terms and functions on one side of a flip chart page. (The other will be used for features of the VVM).

ASK participants to open their Guides and read document “Cold Chain Monitor Card” which explains what a CCM is and how it works. Take five minutes to read this section. (The trainer can provide more time if there are many participants still reading after 5 mins).

ASK participants to now develop three questions to ask their partner at their desk about the CCM. Ensure everyone has a partner to work with. Make a group of 3 if needed. Tell participants to write down the answers to their question as needed so they don't forget them. Take another 5 minutes to do this. When five minutes is up ask each other your questions.

Before telling participants to start, ask if they have any questions about the exercise. Repeat the instructions as necessary.

While participants are working walk around the room to ensure that they are following the exercise correctly. When participants have finished asking and answering their questions in pairs, ask them to share their best questions with the whole group. Settle any disputes using the Guide and the best expertise in the room. Internet searches are also allowable if needed.

Note the information provided further on in the Guide which clarifies that “If the information provided by a CCM differs from the information of the VVM, the VVM should be used for the INDIVIDUAL VIAL.

Before moving on to the VVM point out how the information from the two tools compare in function and purpose. As stated in the Guide

- The CCM indicates when temperature limits of the cold chain have been passed.
- The VVM takes the monitoring procedure one step further and shows the impact of any such temperature changes on each individual vial of vaccine.
- The CCM monitors “the vaccine's journey”, while the VVM shows how each “vaccine passenger” has fared.

Activity 2 Video: How Does a VVM Work? 30 minutes

EXPLAIN that we will now learn more about Vaccine Vial Monitors. Note that VVMs are not a substitute for CCMs instead they are an additional device to use with other monitors.

ASK participants how many know what a Vaccine vial monitor is and how to use one. Explain that you are just looking to find the level of understanding of this within the group.

Take a few brief descriptions and then share the following information reinforcing points that were already given by the participants

As the Guide points out the Vaccine vial monitor (VVM) is a tool used to check the potency of each vaccine vial. They are used because vaccines don't show signs of change with heat exposure and it enables the health worker to verify at the time of use, whether vaccine is in usable condition and has not lost its potency and efficacy due to temperature exposure.

When health workers go to use an individual vial/ampoule of vaccine they can verify whether a vaccine it is indeed still potent and usable by looking at the attached VVM. They can also compare the relative strength of multiple vaccines by seeing which VVM circle is darker and therefore use the vial which will expire sooner. We will explain more on this.

Point out though that the benefits of using VVMs include:

- Giving confidence for the reuse opened vials of vaccine;
- Potentially decreasing a large wastage of vaccines;
- Giving health worker a positive indication that he/she is administering potent vaccine.

EXPLAIN that we are now going to look at a 8 minute video on how VVMs work by a WHO expert. ASK them to pay close attention because there will be some questions at the end.

Show participants the following 8.5 minute video: How Does a VVM Work? By Denis Maire of the WHO. This can be found at <https://vimeo.com/58747176>

After viewing ask the group the following questions based on the video and discuss.

Note: If desired, participants can also be asked to group up in teams of 3 or 4 and write their answers to these questions. If participants are sluggish or sleepy this is a better option as it makes each participate.

- 1) The square in the VVM indicates?
The accumulative heat exposure of the vaccine over time
- 2) Vaccines contain biologicals therefore they can be effected by what 3 things?
Heat, Freezing, and some are Light sensitive
- 3) Which vaccine is the most heat sensitive?
OPV – oral polio vaccine
Next come measles, MR, and MMR
- 4) If a vaccine is exposed to high risk levels of heat it's potency can be re-strengthened by placing it in the appropriate temperature range for an extended period?
No! Heat exposure is cumulative and there is no reverse action possible
- 5) Can the vaccine still be used if the expiry date is not reached but the circle on the VVM is the same color as the square?
No!
- 6) True or false, the higher the temperature the faster the degredation.
True!
- 7) The average total shelf life for most vaccines which have been kept between +2 and +8 degrees Celcius is ?
2 years
- 8) Shelf life is based on the assumption that?
The vaccine has been kept between +2 and +8 degree celsius since its manufacturing
- 9) What does it mean when the colors of the square and the circle exacty match? Can they be used?
No! Not even if the expiry date has not been reached.

When the quiz is finished tell Participants that in their Guides they will find a document titled What is VVM and How Does it Work? ASK them now to take ten minutes to review it to reinforce any concept that was not brought up in the video or that may still be unclear.

After ten minutes ask if there are any questions. Answer as needed. Allow other participants to answer questions from their colleagues first if possible.

Before closing this activity, ask if they know where the VVM is mentioned in the computer based vLMIS? What sections might they find reasons to use it? For instance where do Districts apply their VVM status in the vLMIS?

Districts can use VVMs when accessing the Inventory Management Dashboard. Here it shows the VVM stage status for the District.

The VVM is also applied when a District issues vaccines. There is a data field for entering the specific VVM stage. There is also a place for adjusting the VVM stage when it has changed within the Add Adjustment section of the vLMIS. Ask participants if they know how they use this. Explain as necessary.

Activity 3 What is Shake Test? Interactive lecture—10 mins

EXPLAIN that we will now discuss what shake test is and when it should be done. Start by telling participants that this test is designed to determine whether adsorbed vaccines (DPT, DT, Td, TT or hepatitis B) have been frozen.

Ask participants have they come across this issue? What they normally do if a vaccine is frozen? Take responses and note on flip chart.

Tell participants that after freezing, the vaccine is no longer a uniform cloudy liquid, but tends to form flakes. Sedimentation occurs faster in a vaccine vial which has been frozen than in a vaccine vial from the same manufacturer which was never frozen.

Ask participants to open the Guides and read the shake test. Explain and answer questions which participants may come up with after reading.

SESSION 4: MAINTENANCE OF COLD CHAIN EQUIPMENT AT DISTRICT AND LOWER LEVELS

Objectives:

By the end of the session, the participants will be able to:

1. Provide regular maintenance to standard Cold Chain equipment
2. Correctly defrost a refrigerator
3. Resolve simple refrigerator breakdowns

Time: 75 minutes

Session materials needed:

1. Flipchart paper, markers, tape
2. Multimedia with screen

Documents in Participants Guide:

1. Breakdowns and Emergencies

Flipcharts or Slides:

1. Breakdowns and Emergencies

Trainer Preparation:

- Copy and cut up sets of *Procedures for Defrosting* and put into envelopes for the exercise in Activity 2. Be very familiar with all materials and concepts. Have a small prize to get the winning team for Activity 2.
- The trainer should be well versed in all the concepts of the session and understand how to convey them simply.
- Trainer should be familiar with all session materials including those in the Participant's Guide
- Prior to starting the session trainer should be sure that all materials needed for the session are ready.

If the session will be co-facilitated, the co-facilitators should decide before the session who will be responsible for which parts of the session.

Learning Activities:

Name of Activity	Type of Activity	Time (mins)
1: Introduction	Lecturette	15
2: How to correctly defrost a Refrigerator	Exercise	35
3: Refrigerator breakdowns	Lecturette	10
4: Exchange of expertise and conclusion	Conclusion	15

Activity 1 Introduction (Lecturette) -15 min

The maintenance of cold chain equipment varies widely depending upon the type you have and the vaccines you are keeping. Ask participants if they agree with this? Take responses.

The truth is that maintenance rules are basically the same for all types of equipment.

ASK participants what are the basic things that must be done to keep equipment running well. Put responses on flip chart. Participant's responses should include:

Equipment must be :

- Selected Carefully
- Regularly cleaned

- Correctly defrosted
- Monitored consistently (To ensure that recommended temperatures are maintained) and
- All basic safety rules must be

Ask participants which equipment is used at District and Health Facility Levels:

Put responses on flip chart. Participant's responses should include:

District Level:

- Medium capacity top-opening or "ice-lined" refrigerators (ILR);
- Medium capacity top-opening freezers;
- Upright household two-compartment refrigerator/freezers

Health Facility Level:

- Small "Ice-lined" refrigerators;
- Upright household two-compartment refrigerators/freezers;
- Small top-opening freezers

EXPLAIN participants the points to be considered regarding Installation, and for Care and Maintenance of equipment used.

Install equipment:

- Out of the sun and away from any source of heat;
- In a well aerated area, cool if possible, but not ventilated.
- Why? Because there is a risk that the flame will be blown out in the case of a model running on oil or gas);
- With a space of 30 to 40 cm around the equipment in order to allow air to circulate and facilitate maintenance

Besides doing visual inspections of our equipment what else is a common way to ensure these resources are running properly? Take answers and explain that a very important tool is to keep a Logbook. Ask participants what they know about this and if any facility does so.

A logbook is an ideal thing to keep all information for each piece of vaccine storage equipment that includes:

- The serial number of each piece of equipment.
- The date at which each piece of equipment was installed.
- The dates of any routine maintenance tasks (such as cleaning)
- The dates of any repairs or servicing, and
- The name and contact information of the person or company performing each of these tasks should be recorded.

EXPLAIN that log books are kept to maintain and record the refrigerator temperature on daily basis per the cold chain temperature protocols. By keeping a daily record you can see when there are changes either immediately, because you are watching the temperature every day, or over the long term as trends can be spotted. In this way we may witness the aging of our equipment or patterns that we would not normally see.

Note that some facilities (and vaccines) require doing twice daily monitoring of temperatures. It is recommended that reading temperatures twice a day, once in the morning and once in the afternoon and keeping logs for at least 3 years.

This data can be important when evaluating the need for a new storage unit or if there is a potential need to recall and re-vaccinate patients because of improperly stored vaccines.

Next tell participants that another common element of maintaining cold chain equipment is defrosting refrigerators.

Why do we need to defrost refrigerators if the ice helps vaccines stay cold? Explain that when thick ice develops on the inside of a unit it hampers its efficiency and has a detrimental impact on the unit and the vaccines.

How often do we need to do this?

- Participants can respond as often as it is needed.

When do we know if we need to do this?

- We will see ice build-up inside the refrigerator.

What does it mean if we have to defrost our equipment more than once a month?
Then we probably have a problem with our equipment

What could be the cause of this problem?

- Staff are opening the door too often (more than three times daily)
- The door is not closing properly
- The door seal needs to be replaced.

So what are the steps to defrost a refrigerator? To do this move on to our next activity.

Activity 2: How to Correctly Defrost a Refrigerator (Exercise) - 35 min

See the document Procedure for Defrosting at the end of this session.

TELL the participants that now we will practice a basic component of cold chain maintenance – properly defrosting refrigerators

ASK participants to get into teams of three and sit at the same table. Tell them that we are going to play a game to review the steps for how to properly defrost a refrigerator. Hold up one of the envelopes and explain that you have taken the steps for defrosting a fridge put them on strips of paper and have mixed them up. Each team will get one set to put in the correct order. They should raise their hands when they have the steps in order. The first team to get the steps in the correct order will get a small prize.

Note: If no prize is available allow them to leave for lunch or the end of the day first. Or give them a big round of applause.

Pass out envelopes to each team but don't allow them to open them yet. Once everyone has an envelope and is clear on the rules allow them to open them and start.

As they are working, move around the room to observe and listen to their discussions. Notice areas where they are getting stuck and address those when wrapping up the session. A group may finish first but not have them in the right order. When the first group finishes encourage the others to finish while you or the other trainers goes to check their work. Encourage all teams to finish the exercise so they benefit from it.

When ready, get the attention of the participants and review the steps. Ask the winning team to review the order. Correct any errors that occurred and clarify any misconceptions.

Now what should be done after defrosting? Take answers
The refrigerators should be cleaned!

How do we do that? Ask the participants to open up their Guides and read the section on cleaning.
Give them two or three minutes to read the section.

When they are finished asked them if they were surprised by anything that they learned. Take responses.

Ask why we need to remove dust and dirt from the condenser. Take responses.

Because it builds up and makes the motor work harder to keep the unit cold. It thus burns out the motor more quickly.

But is it really important to do much for the more simple equipment like cold boxes and vaccine carriers? How much maintenance could they really need? They are just simple boxes after all.

Take suggestions for what can be done to maintain these. Support correct answers and correct ones that are not accurate. Learning what the participants know will help determine how much information they need on this topic.

TELL participants, or reconfirm if they have mentioned it, that vaccine carriers and cold boxes must be cleaned and dried after use and stored with their lids open. If the lids are left on they can develop mold which, along with moisture, can damage the equipment by affecting the seal of the cold boxes and vaccine carriers. This in turn can damage the vaccines. If possible, always store cold boxes and vaccine carriers with the lids open.

If carriers get knocked around, or if they are exposed to too much sun, they can crack which can damage the insulation and increase the possibility of heat getting to the vaccines inside. Handle this type of equipment carefully and do not drop them. If cold boxes or carriers develop any cracks use strong tape to cover it until a new container can replace it.

ASK, by raising of hands, how many facilities have procedures set up for regular cleaning of fridges and boxes/carriers? Note that a simple notice with the steps for cleaning could be a helpful reminder. This could be put on the wall in the room where the equipment is kept.

Activity 3: Refrigerator Breakdowns --- 10 minutes

If our maintenance program doesn't prevent problems we may have a breakdown. Now let's talk about what we can do if our vaccine refrigerator breaks down.

If a vaccine refrigerator stops working what's the first step we need to take?

First protect the vaccines and then check the cause of the problem.

How would we protect our vaccines?

Move the vaccines to other cold chain equipment until the refrigerator is repaired.

For a problem that can be solved quickly, a cold box or vaccine carrier lined with conditioned ice-packs can be used for temporary storage.

What do we do for bigger problems?

We will need another refrigerator.

And what precautions should we take?

Keep a freezer indicator with the freeze-sensitive vaccines.

OK so our vaccines are safe. What next?

We need to get the refrigerator working again

What are simple Steps we can take to get the Refrigerator working again?

- Check the electricity, gas, kerosene or solar power supply. If the equipment is not getting power from the grid (or power supply) try to make arrangements to deal with any interruptions.
- If a lack of electricity, gas, kerosene or solar power is not the problem, contact your supervisor and ask for a repair service visit. Do not attempt to repair the refrigerator yourself unless the problem is a simple one that you can deal with.
- Record the breakdown on the daily temperature-monitoring chart.

Activity 4: Exchange of Expertise (Conclusion)–15 min

This is a good time to ASK participants if they have any tips to share with the group for repairing

refrigerators or generators. Ask the participants to share what experience they have so that others may benefit. Ask them to keep this to simple things that can be done and which doesn't risk damaging the equipment or involve specialized tools. Also ask participants if they have any questions or typical problems they face with their equipment that they might like help with. Allow for a discussion.

Also ask if anyone can recommend a good repair service or provider that they trust and who works well. If time runs out before participants have finished this discussion suggest that they continue it during one of the breaks.

To wrap up mention that we've looked at how to maintain our refrigerators through visual inspections, regular defrosting, cleaning, and daily monitoring (through keeping a log book) and how to properly clean our cold boxes and vaccine carriers. Finally we've shared some tips on basic maintenance that we can do ourselves.

Mention that this day has just touched on the basics for maintain vaccines and cold chain equipment. There is always more to learn. However they have a great resource in the form of the Guide at their disposal and they have each other. Encourage them to reach out for assistance from others when they need it. Posting questions to the International Association of Public Health Logisticians can also help them find solutions to their problems or questions. They can join for free at www.iaphl.org.

Thank all the participants for their time and take any final questions before closing.

Procedure for Defrosting

Trainer's Note: Make one copy of this for each 3 participants in your workshop. Cut up the steps into individual pieces of paper (you will have 11 as there are 11 steps) Put each complete set of 11 steps into one envelope. Ask each team of three to put this in the right order. Keep this copy for yourself to recall the proper order and to do the exercise at a later time. Note that some of these steps, like the last one, can be inserted in multiple places and the procedure will still be correct. Be prepared to address this when evaluating participant's work.

- Remove the vaccine and store it in another working refrigerator or cold box with icepacks;
- Switch off the refrigerator and pull out the plug;
- Open the refrigerator and freezer doors;
- Remove all icepacks from the freezer;
- If a chest type, open the drain plug at the bottom;
- Put a bowl or tray in front or underneath to collect the ice and water;
- Remove loose ice by hand only; no tools or sharp instruments to be used; the melting time can be reduced by putting a container with warm water (not over 50 degrees C) into the freezer;
- Wipe the refrigerator dry and clean thoroughly;
- Re-connect the power and turn the refrigerator on;
- Wait until the refrigerator is again running at the correct temperature, and then replace the vaccines.
- Do not remove frost or ice with a knife or any other sharp instrument. These can easily cause damage to the refrigerator.



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