



USAID | **DELIVER PROJECT**
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Guide to Conducting Supply Chain Assessments Using the LSAT and LIAT: Templates



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Guide to Conducting Supply Chain Assessments Using the LSAT and LIAT:

Templates

USAID | DELIVER PROJECT, Task Order 1

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Abstract

This document contains templates that may be downloaded and adapted as needed when using the [Guide to Conducting Supply Chain Assessments Using the LSAT and LLAT](#), which can be found on the USAID | DELIVER PROJECT website. Supply chain assessments are conducted periodically to support the development of logistics systems. As assessments become a standard part of overall logistics management, the capacity of in-country stakeholders to drive the assessment process needs to increase. The guide is meant to support capacity building and supplement the lessons that evaluators have learned from their own experience.

Cover photo: District Supervisor, Mr. Mosses, reviews logistics data with a staff person during a routine monitoring and data collection activity at a dispensary in Tabora, Tanzania in 2009.

USAID | DELIVER PROJECT

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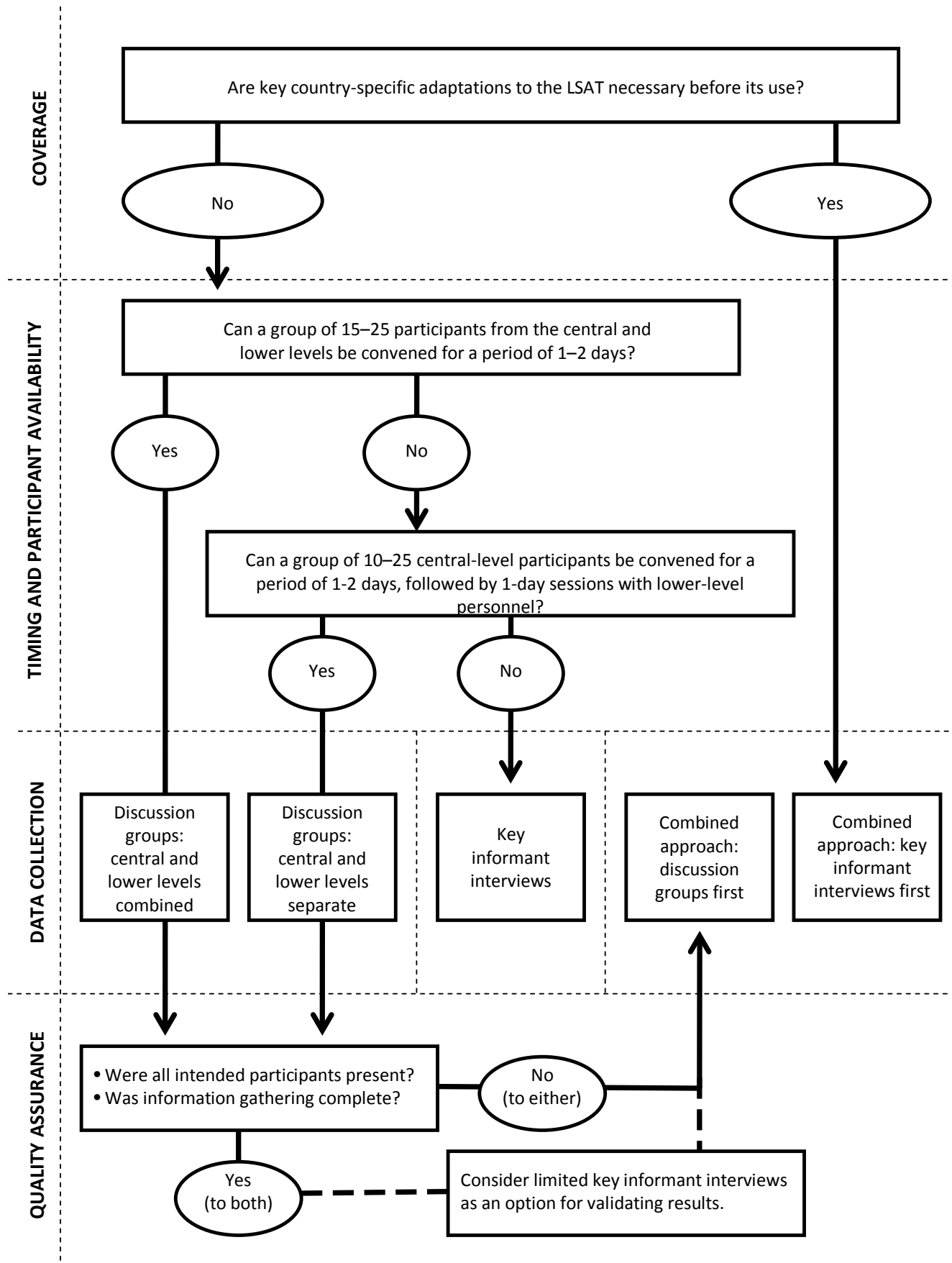
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Sample Activity Schedule for a Five-Week Assessment

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1	STTA advisor arrives in country	LSAT/LIAT activity preparations; meet with various stakeholders	LSAT activity preparation; presentation finalization	LSAT activity: all-day event	LSAT activity: optional continuation or processing results	LSAT analysis: identify gaps for follow-up, identify critical areas for LIAT	LSAT analysis and follow-up; LIAT preparations (optional as needed)
Week 2	Break	LIAT training preparation	LIAT training day one: data collection protocols, tool review	LIAT training day two: tool review, GPS	LIAT training day three: pilot test tool	LIAT training day four: finalize tool, prepare for field work	Data collectors, monitors, supervisor depart for field work
Week 3	Data collectors, monitors, supervisor depart for field work	Data collection; monitors and supervisor review data	Data collection; monitors and supervisor review data	Data collection; monitors and supervisor review data	Data collection continues without monitors	Data collection; finalize data entry tool/ database	Break
Week 4	Break	Data collection; data entry training	Data collection; data entry	Data collection: data entry	Data collection; data entry	Data collection; data entry	Data collectors return from field work
Week 5	Break	Debrief with data collection team leaders; data entry	Debrief with data collection team leaders; data entry	Data analysis; populate data tables; prepare for stakeholder debrief	Data analysis; populate data tables; prepare for stakeholder debrief	Stakeholder debrief	STTA advisor departs country

Determining a Data Collection Method for System Assessments Using the LSAT



Determining Survey Design Type for Facility-Level Assessments Using the LIAT

Assumptions

Coverage

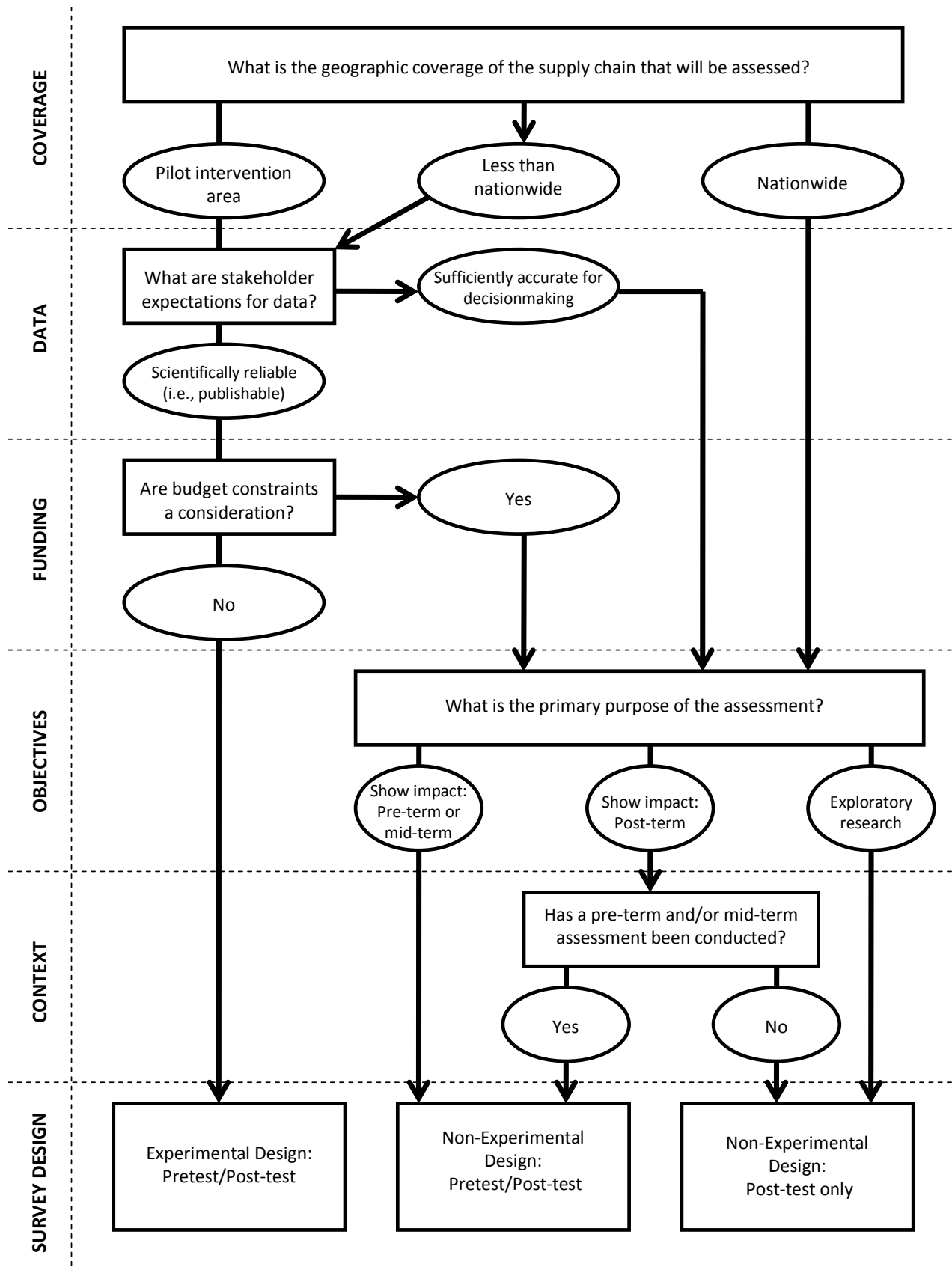
Supply chains providing nationwide coverage generally cannot be evaluated through experimental design because it is hard to identify a control group for this purpose. On the other hand, pilot programs and less-than-nationwide supply chains can often be compared to non-intervention areas in the same country with similar populations and commodity needs.

Data

Data that are sufficiently accurate for decision making are always required in supply chain assessments. In some cases, however, there is an added need to ensure that data are scientifically reliable enough to be published in a journal or subject to statistical scrutiny. In such a case, only experimental design is appropriate.

Funding

Efforts to control budget outlays are always important. In general, experimental design is costlier than non-experimental design because it expands the amount of data to be collected. This is not to say that cost-reasonable approaches to experimental design cannot be sought, or that programs with greater funding should always seek to conduct experimentally designed surveys.



Determining Sampling Method For Facility-Level Assessments Using The LIAT

Assumptions

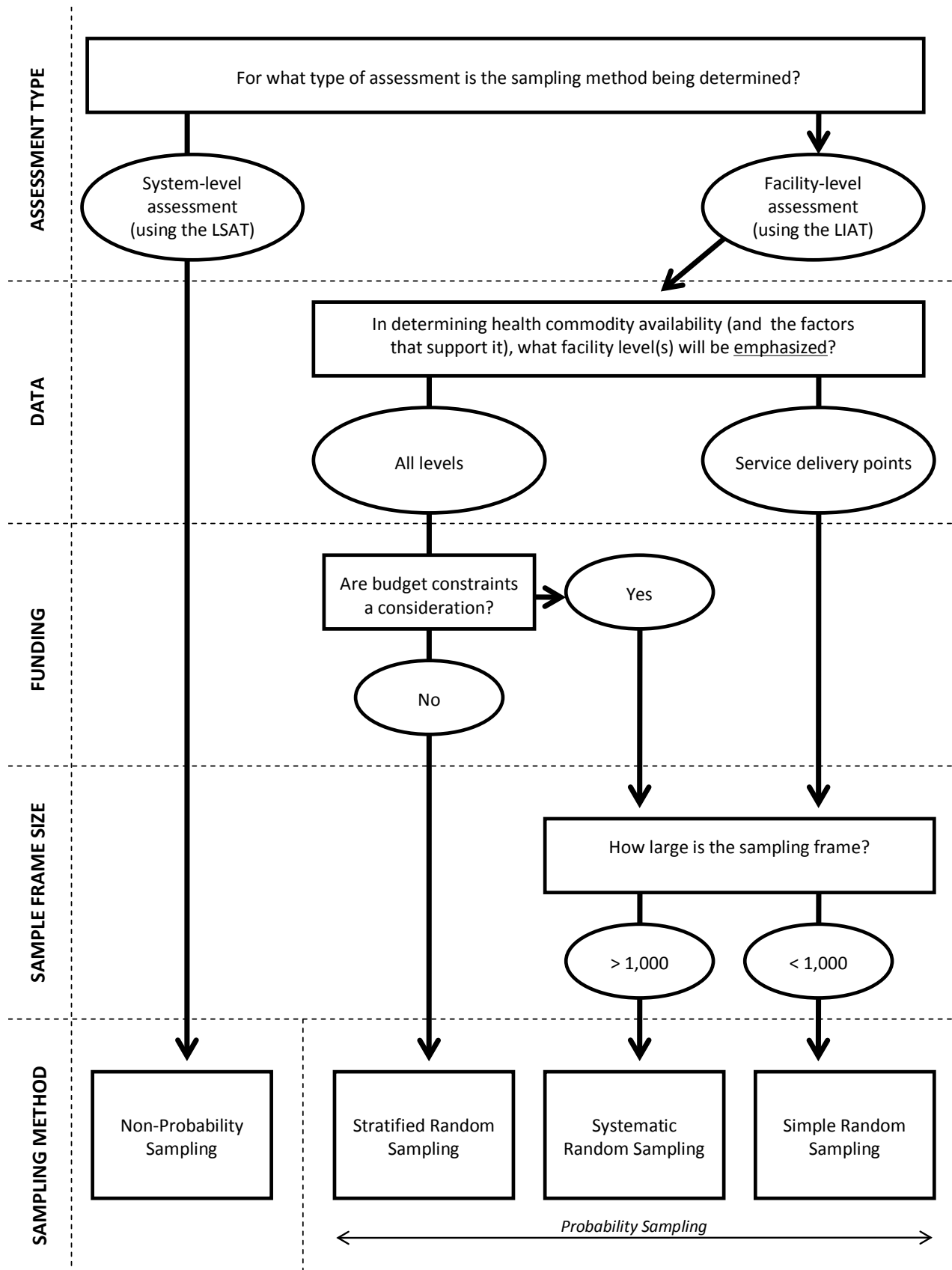
Funding

Efforts to control budget outlays are always important. Stratified random sampling is often costlier than systematic and simple random sampling because it may expand the amount of data to be collected. This is not to say that cost-reasonable approaches to stratified random sampling cannot be sought, or that programs with greater funding should always seek to employ stratified random sampling.

Sampling Method

All types of random sampling allow for analysis of different strata within a system. However, only stratified random sampling ensures that proportionate representation of facilities at each level of the system will be achieved, thus providing more robust results. Generally, with systematic sampling and simple random sampling, the numbers of each type of facility are not specifically controlled in the selection process, but valuable analysis of level-specific trends may be performed by sorting data into strata once they have been collected.

Non-probability sampling can be used for facility-level assessments, but it introduces a high risk of bias in the selection of facilities, and therefore, decreases the likelihood that results are truly representative of the entire sampling frame.



Scopes of Work for Data Analysts and Survey Coordinators (LIAT)

SCOPE OF WORK

POSITION: LIAT Data Analyst Consultant

SUPERVISOR: Country Director or Survey Coordinator

SPECIFIC RESPONSIBILITIES:

- Participate in orientation by survey staff on survey implementation, including a review of the assessment protocol and tools. Participate in as much of the four-day training workshop for data collectors as possible.
- Participate in orientation by survey staff on the survey data entry program. Coordinate with staff on logistics for recruiting and training data entry staff. Train data entry staff using the MS Access database provided.
- Oversee data entry quality checks and make necessary revisions to dataset. Oversee the work of the data entry staff for the duration of the study.
- Convert the Access database to SPSS.
- Clean the database based on skip patterns and filters in assessment questionnaire. Send the completed Access database and SPSS data files to country office or project HQ for review.
- Create a comparison table using baseline and follow-up datasets. Set up SPSS data files for the merge (optional based on comparing data from multiple assessments).
- After HQ approves the dataset, tailor the standard SPSS syntax files to this survey.
- Carry out analysis following the data analysis plan and indicator table.
- Run statistical testing to determine the significance of changes between the baseline and follow-up periods.
- Assist the study coordinator in drafting the preliminary report, following the template provided.
- Respond to questions and/or requests for more information by the project's country team and by the HQ staff as needed during the course of this survey. Keep the local team and survey coordinator informed of any changes in the timeline for delivery of products associated with this survey.

ESTIMATED TIME NEEDED FOR THIS CONSULTANCY: 25–30 days

DELIVERABLES:

- Access database file and SPSS files with cleaned, raw data.
- Comparison table for baseline and follow-up dataset merge.
- SPSS output tables and revised syntax files used for the analysis.

SCOPE OF WORK

POSITION: LIAT Survey Coordinator

SUPERVISOR: Country Director

SPECIFIC RESPONSIBILITIES:

- Take the lead in identifying data collectors and coordinate with USAID | DELIVER PROJECT office staff on logistics of training (i.e., training location, materials, etc). Facilitate a four-day training workshop for data collectors on survey implementation, including the assessment protocol and tools to be used.
-
- Take the lead in organizing field work logistics. This includes forming assessment teams from the data collectors who successfully complete their training, identifying supervisors or team leaders for each team, making site visit plans, coordinating vehicles and communications, and assigning regions and districts to teams.
- Supervise survey data collection for the duration of the survey (including on-site supervision in the first week, at a minimum). Ensure that sampling and data collection are conducted according to the guidelines provided by the M&E staff backstopping this survey.
- Supervise data analyst and provide general management of data entry component of the survey. This includes overseeing all aspects of data coding, entry, cleaning, and analysis.
- Draft a preliminary report following template provided by USAID | DELIVER PROJECT.
- Prepare and present findings of the assessment under the supervision of the country director.
- Respond to questions and/or requests for more information by the project's country team and by HQ staff as needed during the course of this survey. Keep the local team and HQ informed of any changes in the timeline for delivery of products associated with this survey.

ESTIMATED TIME NEEDED FOR THIS CONSULTANCY: 30–40 days

DELIVERABLES:

- Field work logistics plan (to be submitted before data collection begins).
- Brief report on survey field work (to be submitted at the conclusion of data collection). This should include comments on any deviations from the planned sample or protocol.
- Preliminary draft survey report (to be submitted at the conclusion of the data analysis phase).
- Presentation of survey findings for local stakeholders.

Job Descriptions for Data Collectors and Data Entry Personnel (LIAT)

Job Description Field Data Collector

Health logistics project requires [number] short-term consultants as Field Data Collectors for a facility-based survey that will take place from [starting date] to [ending date]. We are looking for consultants who have the following qualifications:

- Experience in carrying out field surveys
- Willingness to commit to a three-week assignment, full time
- Willingness to work evenings and weekends during data collection
- Physical ability to travel in both urban and potentially difficult rural settings
- Familiarity with the areas to be visited: [List areas to be visited]
- Fluency in English
- Fluency in local languages a plus
- Familiarity with government health care system
- Detail-oriented
- Good communication skills
- Ability to work as a member of a team
- Degree in public health (desired)
- Quantitative research skills (desired)
- Knowledge of logistics systems (desired)

Data collection training will begin in [city name] on [starting date] and end on [ending date], including pilot testing of the survey tool and final revisions. The group of local consultants will include one to two more data collectors than will be needed for the actual survey. At the end of the training, trainers will select the final team of data collectors based on their demonstrated skills. In the event that any of the data collectors are unable to complete the field work, the remaining trainees may be asked to join the team during the data collection phase; however, these trainees will not receive per diem unless called to participate in the data collection.

Data collection will take place from [starting date] and end on [ending date]. Depending on the area to which the team will be traveling, data collectors may be required to travel the weekend prior to be ready for data collection at the facilities Monday morning, [date].

Job Description Data Entry Staff

Health logistics project requires [number] short-term consultants as Data Entry Staff for facility-based survey that will take place from [starting date] to [ending date]. We are looking for consultants who have the following qualifications:

- Experience entering data into database
- Proficiency in Microsoft Access (data entry)
- Willingness to commit to a two-week assignment, full time
- Willingness to work evenings and weekends (as necessary)
- Fluency in English
- Fluency in local languages a plus
- Familiarity with government health care system
- Detail-oriented
- Good communication skills
- Ability to work as a member of a team
- Degree in public health (desired)
- Quantitative research skills (desired)
- Knowledge of logistics systems (desired)

Data collection training will begin in [city name] on [starting date] and end on [ending date], including pilot testing of the survey tool and final revisions. Data Entry Staff will participate in the data collection training and piloting of the survey instrument.

Data entry will take place from [starting date] and end on [ending date]. Consultants must be willing to enter large amounts of data in a short amount of time while maintaining a high level of data quality. Data entry may require work in the evening hours or on the weekends to complete data entry on schedule.

Materials Needed for Survey Training and Data Collection (LIAT)

MATERIALS CHECKLIST (LIAT)

Training Materials

- 1 Flip Chart
- 2 Flip Chart Easel
- 3 Marker (Multi-Colored)
- 4 Laptop Computer
- 5 LCD Projector
- 6 Power Strip/Extension Cord
- 7 All Sample Facility Forms Being Assessed
- 8 All Sample Products Being Assessed

Training Packets (one packet per participant; each packet should contain the following)

- 1 Copy of Participant Survey Manual
- 2 Copy of Survey Instrument
- 3 Copy of Facility Forms
- 4 Notebook
- 5 Pens (2 Blue)
- 6 Calculator
- 7 Clipboard
- 8 Name Badge

Data Collection Packets (per team to be provided to Team Leader)

- 1 Copy of Data Collection Schedule
- 2 Copy of Contact Phone Numbers
- 3 Copy of Call-In Schedule
- 4 Sufficient Copies of Tool for Each Facility to be Visited + Extras
- 5 Manila Envelopes (1 Per Survey + Extras)
- 6 Black Markers (2)
- 7 Copy of Facility List
- 8 Copies of Quality Control Checklist

LIAT Trainer's Guide

LIAT TRAINER'S GUIDE

[Name of assessment]

Data Collectors Training & Field Test

[City, Country]

[Date]

TRAINING OBJECTIVES:

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

- Describe the purpose and objectives of the assessment.
- Describe the instrument and how to collect data on logistics management of reproductive health commodities.
- Describe the team's responsibilities in conducting the assessment.

TIME:

4 days, including site visit for field test of instrument

HANDOUTS:

- Survey Manual for Conducting the *[name of assessment]*
- *[Name of tool]*
- Other handouts for pilot testing and field data collection to be provided during the training.

DAY ONE

OPENING CEREMONIES

PRAYER (optional)

Many cultures like to open with a prayer or something similar. The prayer will depend on what is practiced in a particular country and can be from more than one religion/ethnic group/culture, etc. Encourage participants from different backgrounds to participate to reinforce the message that all are all working together and should respect one another.

SELF-INTRODUCTION OF PARTICIPANTS

Implement an interactive introduction exercise for participants or other self-introduction exercise. Participants will spend a lot of time together, it is recommended that an icebreaker be conducted to help the participants get to know one another. The following are examples:

- Divide the group in pairs, have each partner interview the other, and then have them all introduce their partners to the group.
- Develop a set of statements such as “likes to drink tea” and have participants go around the room asking people to sign their name next to a true statement about themselves.
- Have participants introduce themselves to the group, but have them include something unique or a “fun fact” about themselves.

WELCOME ADDRESS

A welcome address to participants

GOODWILL MESSAGE

Goodwill messages provided by representatives from partner organizations.

GOALS AND OBJECTIVES

Briefly explain the purpose of the assessment and the training.

The primary goal of the survey is to assess the *Ministry of Health (MOH)* logistics system, especially the availability and current stock of a selected list of *public sector [type]* commodities.

As part of their ongoing monitoring and evaluation, the MOH and its partners are conducting the survey for *public* sector facilities in logistics and commodity availability. The general objectives of the survey are as follows:

- Provide the MOH and *[name of other program]* with current information on logistics and stock status of key *[type, i.e. FP, Malaria, HIV/AIDS]* commodities.
- Provide the MOH *[name of other program]* and partners with information to measure improvements in the logistics system for malaria commodities through its support to MOH and *[name of other program]* activities.

Review the training objectives with participants:

- To describe the purpose and objectives of the assessment
- To describe the instrument and how to collect data on logistics management of key [type] commodities
- To describe the team's responsibilities in conducting the assessment

TRAINING GROUND RULES

Agree on **GROUP NORMS** for the training with participants (solicit responses and post throughout training):

- Participants arrive to start on time.
- Participants stay the full time for all days of the training.
- Cell phones off during training sessions.
- Be respectful of the opinions of other participants.
- Other suggestions by participants

OVERVIEW OF THE [type] MANAGEMENT SYSTEM AND REVIEW OF SYSTEM FORMS

Provide a brief description of the [type] logistics management system to ensure that all participants are familiar with the system the survey will be assessing.

Provide a packet of relevant forms to each participant comprising the forms they will encounter at the facilities. Provide a brief description of what each form does, how it is used at the facilities, and what sections will be most relevant to data collection.

INTRODUCTION TO THE SURVEY AND INSTRUMENT

Explain that the survey instrument is based on the Logistics Indicator Assessment Tool (LIAT) that is designed to collect quantitative data on commodity logistics management from public sector facilities throughout the country. Explain that we will be reviewing the survey tool and changing it with participants' suggestions and comments during the next four days. We will also conduct a field test of the instrument in nearby health facilities in [country].

During this training, participants will learn how to identify the appropriate person to interview at each facility and how to fill in the survey tool completely and correctly.

The schedule for the next [number] weeks (training and data collection) is challenging and will require everyone's full commitment.

Answer any questions participants may have about the survey before continuing.

INTRODUCTION TO THE TRAINING

Review the training objectives with participants:

- Describe the purpose and objectives of the assessment.
- Describe the instrument and how to collect data on logistics management of [type] commodities.
- Describe the team's responsibilities in conducting the assessment.

A total of [number] teams will conduct the survey. One person is assigned as the contact person/team leader for the team (to be referred to as the **Team Leader**). During the training workshop, participants will learn how to identify the appropriate respondents at each facility and how to fill in questionnaires correctly. Participants will also conduct a field test of the instrument with other trainees in nearby health facilities in [city/country].

WHAT INFORMATION DOES THE INSTRUMENT COLLECT?

This survey will collect data from various health facility levels. These data will focus on [type] commodity logistics system performance and product availability at the health facility. This will include asking questions of facility staff about forms and reports they use, product ordering, transportation, and supervision. It will also include a physical count of certain key [type] products each facility has in stock, recording stockouts that have occurred in the last six months, and making observations on storage area/warehouse conditions. *A list of logistics indicators is included in the Survey Manual provided to each participant for reference.*

The survey tool includes:

- Introduction statement and consent to continue
- Facility identification
- Interviewee information section
- Health commodity management sections (ordering and issuing, recordkeeping, reporting, management of cost recovery funds, monitoring and supervision, additional questions)
- Storage conditions table
- Availability of [type] product tables

Teams must follow a number of general procedures during a visit to a survey facility. These procedures are outlined in the following sections, along with instructions for recording responses in the survey tools and ensuring quality in the data collection process.

We will go over the selection, gaining permission, data collection, and organizing the data, and, finally, we will review the survey tool question by question.

DATES AND TEAM MEMBER REQUIREMENTS

Explain that the schedule for the next [time frame] is challenging and will require everyone's full commitment.

Training and pilot testing will conclude on [date], and we will be preparing for site visits for data collection and requiring travel to arrive at the first district as soon as possible to be ready for work no later than [day of week] morning [date]. Travel requirements will vary depending on where each team will be going. Team Leaders will be responsible for data collection packets.

Travel arrangements have been made [insert other information as necessary]. Some teams will finish early. Please come straight back to [city, place] and review your questionnaires and debrief with the survey management team (*hand-over meetings with survey management team to be arranged*).

Mention that the administrative arrangements for the data collection period will be covered on [day of week].

SITE SELECTION

Explain that the facilities/stores selected in this survey were chosen to represent a national breakdown of facility types. Each facility selected met certain criteria to be included in the survey and be representative. This is important, because policy- and decisionmakers will be using the results of this survey for decisionmaking.

Therefore, it is important to try to collect the data from these particular representative sites.

If a health facility is unable to be visited (unable to locate it, permanently closed), call the Principal Investigator for a preselected replacement.

ORGANIZING DATA COLLECTION AT A FACILITY

At the start of the facility visit, the person in charge of the facility should help to ensure that the people the team will need to speak with are available. It is important to determine at the start of your visit whom you will need to interview and where medications and supplies are stored. Call and organize ahead of time if possible. For a small facility, this may be easier since most services might be in the same area. For larger facilities, this may involve different departments.

Experience has shown that a reasonable approach for organizing the data collection in facilities is as follows:

- Team members meet with the person in charge to explain survey components and gain permission for access to facility.
- Describe the data collection needs to identify the best approach for completing the work. You will need to interview staff who are responsible for ordering, managing, and recordkeeping for [type] product management. It is best to plan which staff will be interviewed so that the person in charge can ensure they remain available, or can contact them, if they have already left the facility.
- Reassure the in-charge that, other than a few of the specific management questions, he or she can delegate others at the facility to help the team. Often the person in charge feels obligated to try to respond to all questions and to show the team around the facility. This is not necessary and may create resentment in the in-charge who has many responsibilities.
- Ask to be introduced to all service areas where observations will occur.

People and areas in the facility for data collection are:

- In-charge on the day of the visit
- Pharmacy/store room: You will visit the pharmacy or storeroom where [type] commodities are stored and managed and will need to talk with the persons responsible for ordering and maintaining those commodities.

ENSURING QUALITY

All members of the team are responsible for ensuring that the data collected at each facility are as accurate and comprehensive as possible. Quality control is extremely important during a survey, especially a survey this large, and will be established at several levels, starting with data collection through data entry and cleaning and analysis.

Each data collector/interviewer is responsible for:

- Checking that questionnaires you have filled out are complete, ensuring that all answers are clear and reasonable, and that your handwriting is legible.
- If questions are omitted or there appear to be errors, you should return to the original respondent(s) if possible. Explain that you made an error, and ask the question again. Check all questionnaires received at the end of the day to ensure that all items are completed and skip patterns are followed.

Each team leader is responsible for:

- Ensuring that the interviewer doesn't "guess," orient, or answer the questions himself or herself.
- Ensuring that respect for interviewees is demonstrated at all times. It is easy for the interviewers to be so concerned by the process that they lose track of the purpose.
- Ensuring that the team finishes the appropriate number of completed instruments by the end of the data collection period.
- If a health facility is unable to be visited (unable to locate it, permanently closed), check with the Principal Investigator for a suitable replacement and note the change in the Sampling Log.
- Ensuring that the team arrives at the facility at an appropriate time. For example, for the first facility of the day, it would be helpful to be there before the clinic opens.
- Meeting with the person in charge to coordinate and explain the survey components and gain permission for access to the facility.
- Maintaining regular contact with the Survey Manager. Follow the call-in schedule that will be provided before you leave. Report on any problems with staff performance or aspects of the survey. Promptly notify the Survey Manager of any changes in the initial visit schedule.
- Ensuring that all team members meet at the end of each day's data collection to review the questionnaires (using the Quality Control checklist) and check for accuracy and completeness.
- Discuss with team members any problems observed in the completed questionnaires or any problems experienced.
- Preparing and returning questionnaires as agreed upon.
- Submitting surveys as outlined by the survey submission guidelines.
- Review the Quality Control Checklist.

REVIEW OF PACKAGING/UNITS OF COUNT

Provide examples of each of the [type] commodities they will encounter in the facilities. Review with participants what the unit of count will be for each commodity. Discuss how they might find them packaged at facilities and reinforce the unit of count they must adhere to.

INSTRUMENT REVIEW

Go through the tool, read the questions one by one, and explain the nature or spirit of each question as well as why questions are asked in this order, etc.

Go "round robin," reading each complete question and response option. After each, ask whether participants have any questions (language, meaning, links, etc.).

Are there any questions on these questions (language, meaning, links, etc.)?

Explain why each question is being asked and how the information will be used. Team members often need to paraphrase and/or translate and will need to understand the questions completely.

DAY TWO

INSTRUMENT REVIEW

Continue with the instrument review until instrument has been reviewed in its entirety.

Go through the tool, read the questions one by one, and explain the nature or spirit of each question as well as why questions are asked in this order, etc.

Go “round robin,” reading each complete question and response option. After each, ask whether participants have any questions (language, meaning, links, etc.).

Are there any questions on these questions (language, meaning, links, etc.)?

Explain why each question is being asked and how the information will be used. Team members often need to paraphrase and/or translate and will need to understand the questions completely.

INTERVIEW SKILLS AND ROLE-PLAY

Review with participants the interview process:

- Team members meet with the person in charge to explain survey components and gain permission for access to facility.
- Describe the data collection needs to identify the best approach for completing the work. You will need to interview staff who are responsible for ordering, managing, and recordkeeping for [type] product management. It is best to plan which staff will be interviewed so that the person in charge can ensure they remain available, or can contact them if they have already left the facility.
- Reassure the in-charge that, other than a few of the specific management questions, he or she can delegate others at the facility to help the team. Often the person in charge feels obligated to try to respond to all questions and to show the team around the facility. This is not necessary and may create resentment in the in-charge who has many responsibilities.
- Ask to be introduced to all service areas where observations will occur.

INTERVIEWING HINTS

Following is some general advice for conducting interviews or observations at a facility. Specific procedures for completing each survey are described in detail in each section.

Encourage respondents to cooperate by your approach.

The quality of the information you collect will depend to a large extent on the attitude of both the health providers and clients. Therefore, the interaction between you and all respondents is very important. All respondents should be treated respectfully and politely. The respondents should know that you appreciate their cooperation and the time they are taking to help make the survey successful.

If the respondents feel that the information is important and that you are sympathetic to their situation, they will be more straightforward with responses and will be more likely to answer

questions to the best of their ability. If they feel pressured to respond, or feel that the interview is a burden, they may not think about responses carefully.

Note: The introduction is important and will assist in releasing the in-charge and completing the interview with the pharmaceutical manager.

Make sure you ask the questions as they are written in the survey tool.

Speak slowly and clearly so that the people/person you are interviewing will have no difficulty in hearing or understanding the question. At times, you may need to repeat the question to be sure the respondent(s) understand(s) it. In those cases, do not paraphrase the question but repeat it as it is written. If, after you have repeated a question, the respondent(s) still do(es) not understand it, you may have to restate it. Be very careful when you change the wording, however, that you do not alter the meaning of the original question. As much as possible, wording that conveys the question so that respondents will understand should be discussed during training, and if appropriate, changes made in the survey tool at that time.

Note: Explain that this is why we go through the questions one by one. It is important that interviewers know and understand the “spirit” of each question and how the information will be used.

Be straightforward.

There are many questions in the survey that ask about the availability of items, and then ask to see them. Providers will be more cooperative if they know beforehand what to expect. If you ask questions, and then later ask to see items, people may think you are trying to trick them, or are “checking up” on their answer.

In order to have the greatest amount of cooperation, always tell the respondent what is coming. For example:

“Now I am going to ask you whether you have various types of equipment or supplies and whether they are in working order. After you answer all of them, I will need to see the items so that I can fill in this survey tool completely.”

Never suggest answers to the respondents.

If the respondents’ answers are not relevant to a question, do not prompt them by saying something like, “I suppose you mean that... Is that right?” In many cases, the informants will agree with your interpretation of their answer, even when that is not what they meant. Instead, in most cases, you should probe in such a manner that the informants themselves come up with the relevant answer, e.g., “Can you explain a little more?” “There is no hurry. Take a moment to think about it.”

Specific questions for which it may be necessary to provide additional clarification will be discussed in the detailed instructions for completing the survey tools. Even in these cases, you should provide only the minimum information required for an appropriate response. Except when specifically instructed (e.g., when asking the client about his or her thoughts on the facility during the client interview), never read the list of coded answers to the respondents, even if they have trouble answering the question. Keep in mind that you want an honest snapshot of what is happening in that facility.

Note: It is human nature for the interviewee to want to give the “right” answer. It is also human nature for the interviewer to want to make the person feel comfortable.

Ask all applicable questions.

In most cases, you will ask questions in the sequence in which they appear in the survey tool. However, because the organization of facilities often differs, you may find that to complete one module, you have to talk to more than one respondent or go to different areas of the facility. It is up to you to ensure that when you skip sections because the information must be collected from a different informant or location, you complete those sections before your departure.

Note: If you need to go back to questions with another respondent, it is helpful to develop a system that helps you quickly identify the questions. For example, circle the question, and before leaving the facility, do a quick review of the tool to ensure that each question has been answered.

Handle hesitant respondents tactfully.

There may be situations where the respondents simply say, “We don’t know,” give an irrelevant answer, act very bored or detached, contradict something they have already said, or refuse to answer the question. In these cases you must try to re-interest them in the conversation. For example, if you sense that they are growing restless, reassure them that there are not many more questions, and that the government is very interested in what they say about the services or their facility.

If the informants are giving irrelevant or elaborate answers (or complaining about something), do not stop them abruptly or rudely, but listen to what they have to say. Then try to steer them gently back to the original question. You can also write down what they say and tell them that it is duly noted. The interviewer must maintain a good atmosphere throughout the interview. The best atmosphere for an interview is one in which the respondents see the interviewer as a friendly, sympathetic, and responsive person who cares about them.

Minimize survey interference with the health workers’ ability to see patients.

If the health worker you need to see is busy with a client, wait until that visit is completed before approaching the health worker. Wait until there is a qualified person to show you around to complete the inventory and staff interview modules.

Offer no opinions or advice on specific facility practices during the actual interview.

If you are asked a question that you think requires your opinion or advice, simply respond that you are here to collect information to provide an overview of the stock availability, and you are interested in the systems and practices at this facility. Explaining this and then simply stating, “I’m not in a position to provide any advice or opinions,” may be sufficient.

If you observe what you consider to be wrong practices, make a note on the survey tool, but, again, make no comment or intervention until the end of the visit. At this time you can assist the facility by sharing your observations that you feel will improve its storage practices. Remember that the purpose of the survey is to collect information that will help to improve the health services overall.

Never raise expectations of immediate changes in the situation of the staff or facility.

Do not raise expectations that you can immediately help solve problems that the staff or clients raise. You are going to provide information to decisionmakers, health planners, and administrators, but any changes as a result of the survey will most likely occur over an extended period and be gradual in implementation. If clients or staff complain about the poor state of repair of the facility,

equipment, or supplies or other problems, provide a neutral or non-judgmental response (e.g., “I know these things are difficult”).

Optional: Conduct a role-play to practice introductions and interviewing.

Role-Play Guidelines (optional, if time allows)

This role-play will be used to demonstrate different scenarios you may encounter at the entry point for data collection and to discuss different ways to approach the facilities.

- Participants will break out into three groups, and each group will appoint two representatives: one as the interviewer and the second as the respondent.
- Facilitator will explain to members of each group their roles in the play.
- Representatives of the three groups will take turns in two minutes to act on the role-play while the rest of the participants comment on the different scenarios at the end of the exercise.
- The presentations will be discussed and analyzed based on the interviewing hints for clarity of communication.

PREPARING FOR THE FIELD TEST

Review with participants:

- Purpose of the field test
- Expectations of the assessment teams during the field test
- Assignment of team members to sites within the city and logistics (transport, times; etc.)
- Revisions of the instrument after the field test
- Administrative issues for the field test

DAY THREE

FIELD TESTING THE INSTRUMENT

Take note during the interviews about issues, questions, or problems. Even during the field testing, it is important to fill out the entire survey tool.

At the end of the field testing, all team members will reconvene in the conference room, discuss the major challenges in administering the tool, and start revisions as needed.

FIELD TEST DEBRIEFING AND INSTRUMENT REVISIONS

Debrief the field visit with participants and revise the tool section by section. Be sure to cover the following areas:

- Language
- Sources
- Addition of questions that are linked with objectives
- Personal behavior

DAY FOUR

FIELD TEST DEBRIEFING AND INSTRUMENT REVISIONS (if not finished on day three)

Continue to revise the tool section by section.

Be sure to cover the following areas:

- Language
- Sources
- Addition of questions that are linked with objectives
- Personal behavior

TEAM OVERVIEW AND MAPPING FOR DATA COLLECTION

Review the following details with participants:

- Assign sites to team members and review them with participants, answering any questions they may have
- Schedule field work
- Sampling Lists for each team
- Other materials

Allow teams time to meet together to map the site visit timeline/plan and complete envelope labeling.

DETAILS FOR DATA COLLECTION

Review with participants:

- In-country travel logistics
- Accommodation arrangements and per diem
- Call-in schedule
- Submission of instruments to central/courier service information
- Debriefing with collection teams individually
- Picking up data collection packets
- Answer any participants' questions

TEAM LEADER AND MONITORS TRAINING

Using the survey manual and checklists, review with Team Leaders and Monitors their responsibilities. Review can be done simultaneously with each Trainer.

Illustrative Training Schedule (LIAT)

Training Workshop Agenda
[Name of Assessment]
[Date]
[City, Country]

Day 1—[Date]		
Time	Agenda Segment	Facilitator
8:00	Registration	
8:30–8:35	Prayer	
8:35–9:00	Self-Introduction of Participants	
9:00–9:15	Opening Address	
9:15–9:30	Goodwill Messages	
9:30–10:00	Goals and Objectives & Training Ground Rules	
10:00–10:30	Coffee/Tea Break	
10:30–11:15	Overview of the Logistics Management System and Review of System Forms	
11:15–12:00	Introduction to the Survey and Instrument	
12:00–12:30	Review of Packaging/Units of Count	
12:30–1:30	Lunch	
1:30–2:30	Instrument Review	
2:30–2:45	Coffee/Tea Break	
2:45–4:00	Instrument Review	
Day 2—[Date]		
8:30–8:45	Recap Day 1; Overview Day 2	
8:45–9:45	Instrument Review (cont.)	
9:45–10:00	Coffee/Tea Break	
10:00–12:00	Instrument Review (cont.)	
12:00–1:00	Lunch	
1:00–2:00	Instrument Review (cont.)	
2:00–2:45	Interview Skills and Role-Play	
2:45–3:00	Coffee/Tea Break	
3:00–3:45	Global Positioning System (GPS) Training	
3:45–4:00	Preparation for Field Test	
Day 3 [Date]		
8:00–12:00	Field Testing	
12:30–1:30	Lunch	
1:30–2:30	Field Test Debriefing & Instrument Revisions	
2:30–2:45	Coffee/Tea Break	
2:45–4:00	Instrument Revisions (cont.)	

Day 4 <i>[Date]</i>		
8:30–9:00	Recap Day 3; Overview Day 4	
9:00–10:00	Team Overview and Mapping for Data Collection	
10:00–10:30	Coffee/Tea Break	
10:30–11:30	Team Overview and Mapping for Data Collection (cont.)	
11:30–12:30	Details for Data Collection	
12:30–1:30	Lunch	
1:30–2:30	Details for Data Collection	
2:30–3:30	Team Leader and Monitor Training	
3:30–4:00	Final Preparations and Departure of Participants*	

* The Team Leaders will finalize the instrument, make copies of it, and prepare field packets for collection before the start of data collection.

LIAT Survey Manual

LIAT SURVEY MANUAL

[Title of Assessment]
[Date]

MINISTRY OF HEALTH
[COUNTRY]

INTRODUCTION TO THE TRAINING

OVERVIEW

The purpose of this four-day training is to prepare participants for data collection in the field.

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

- Describe the purpose and objectives of the assessment.
- Describe the instrument and how to collect data on logistics management of contraceptive commodities.
- Describe the team's responsibilities in conducting the assessment.

A total of [number of teams] data collection teams will conduct the survey. One person is assigned as the Team Leader, and each team is assigned a Survey Monitor. During the training workshop, you will learn how to identify the appropriate respondents at each facility and how to fill in questionnaires correctly. You will also conduct a field test of the instrument with other trainees in nearby health facilities in [city/region/state].

INTRODUCTION TO THE SURVEY

OVERVIEW

The primary goal of the survey is to assess the Ministry of Health (MOH) [type] products logistics system, especially the availability and current stock of a selected list of public sector [type] commodities.

The general objectives of the survey are as follows:

- Provide the MOH and partners with current information on logistics and stock status of key [type] commodities.
- Provide the MOH and partners with information to measure improvements in the logistics system for [type] commodities through support to MOH activities.

The survey instrument is based on the Logistics Indicator Assessment Tool (LIAT) that is designed to collect quantitative data on commodity logistics management from public sector facilities throughout the country.

We will be reviewing the survey tool and changing it with participants' suggestions and comments during the next four days. We will also conduct a field test of the instrument in nearby health facilities in [city/region/state].

A total of [number] of teams will conduct the survey. During this training, participants will learn how to identify the appropriate person to interview at each facility and how to fill in the survey tool completely and correctly.

DATES AND TEAM MEMBER REQUIREMENTS

The schedule for the next [number] weeks is challenging and will require everyone's full commitment.

Training and pilot testing will conclude on [date], and we will be preparing for site visits for data collection, requiring travel to arrive at the first district as soon as possible to be ready for work no later than [date]. Travel requirements will vary depending on where each team will be going. Travel for some teams may also be required on weekends following data collection to arrive at appropriate sites or to return to [location].

Travel arrangements have been made [insert other information as necessary]. Some teams will finish early. Please come straight back to [location] and review your questionnaires with a member of the survey management team (handover meetings with a member of the survey management team to be arranged).

SITE SELECTION

The facilities/warehouses selected in this survey met certain criteria to be included and are representative of a national breakdown of facility types. This is important, because policy- and decisionmakers will be using the results of this survey for decisionmaking.

Therefore, it is important to collect the data from these particular representative sites only.

If a health facility is unable to be visited (unable to locate it, permanently closed) only the Principal Investigator on the Survey Management Team can provide an appropriate replacement site and must be contacted.

ORGANIZING DATA COLLECTION AT A FACILITY

At the start of the facility visit, the person in charge of the facility should help to ensure that the people the team will need to speak with are available. It is important to determine at the start of your visit whom you will need to interview and where medications and supplies are stored. Contact appropriate people ahead of time to organize and facilitate this process if possible. For a small facility, this may be easier since most services might be in the same area. For larger facilities, this may involve different departments.

Experience has shown that a reasonable approach for organizing the data collection in facilities is as follows:

1. Team members meet with the person in charge to explain survey components and gain permission for access to facility.
2. Describe the data collection needs to identify the best approach for completing the work. You will need to interview staff who are responsible for ordering, managing, and recordkeeping for [type] product management. It is best to plan which staff will be interviewed so that the person in charge can ensure that they remain available, or can contact them if they have already left the facility.
3. Reassure the in-charge that, other than a few of the specific management questions, he or she can delegate others at the facility to help the team. Often the person in charge feels obligated to try to respond to all questions and to show the team around the facility. This is not necessary and may create resentment from the in-charge who has many responsibilities.
4. Ask to be introduced to all service areas where observations will occur.

People and areas in the facility for data collection are:

- In-charge on the day of the visit
- Pharmacy/storeroom: You will visit the pharmacy or storeroom where [type] commodities are stored and managed and will need to talk with the persons responsible for ordering and maintaining these commodities.

ENSURING QUALITY

All members of the team are responsible for ensuring that the data collected at each facility are as accurate and comprehensive as possible. Quality control is extremely important during a survey, especially a survey this large, and will be established at several levels, starting with data collection through data entry and cleaning and analysis.

Each data collector/interviewer is responsible for:

- Checking that questionnaires you have filled out are complete, ensuring that all answers are clear and reasonable and that your handwriting is legible.

- If questions are omitted or there appear to be errors, you should return to the original respondent(s) if possible. Explain that you made an error and ask the question again. Check all questionnaires received at the end of the day to ensure that all items are completed and skip patterns are followed.

Each team leader is responsible for:

- Ensuring that the team finishes the appropriate number of completed instruments by the end of the data collection period.
- If a health facility is unable to be visited (unable to locate it, permanently closed) check with the Principal Investigator on the Survey Management Team for a suitable replacement and note the change in the Team Sampling Log.
- Ensuring that the team arrives at the facility at an appropriate time. For example, for the first facility of the day, it would be helpful to be there before the clinic opens.
- Meeting with the person in charge to coordinate and explain the survey components and gain permission for access to the facility.
- Maintaining regular contact with the assigned monitor or survey managers. Follow the call-in schedule that will be provided before you leave. Feed back information on any problems with staff performance or aspects of the survey. Promptly notify the Survey Management Team of any changes in the visit schedule initially prepared.
- Ensuring that all team members meet at the end of each day's data collection to review the questionnaires (using the Quality Control checklist) and check for accuracy and completeness.
- Discussing with team members any problems observed in the completed questionnaires or any problems experienced.
- Preparing and returning questionnaires as agreed upon.

THE INSTRUMENT

OVERVIEW

This survey will collect data from various warehouse and facility levels. The data will focus on [type] commodity logistics system performance and product availability at the health facility. This will include asking questions of facility staff about forms and reports they use, product ordering, transportation, and supervision. It will also include a physical count of certain key [type] products the facility has in stock, recording stockouts that have occurred in the last six months, and making observations on storage area/warehouse conditions.

The survey tool includes:

1. Introduction statement and consent to continue
2. Facility and interviewee information section
3. Health commodity management sections (ordering and issuing, recordkeeping, reporting, management of cost recovery funds, monitoring and supervision, additional questions)
4. Storage conditions table
5. Availability and ordering tables

A list of logistics indicators is included at the end of the *Survey Manual*.

INTERVIEW SKILLS

INTERVIEWING HINTS

Following is some general advice for conducting interviews or observations at a facility.

Encourage respondents to cooperate by your approach.

The quality of the information you collect will depend to a large extent on the attitude of both the health providers and clients. Therefore, the interaction between you and all respondents is very important. All respondents should be treated respectfully and politely. The respondents should know that you appreciate their cooperation and the time they are taking to help make the survey successful.

If the respondents feel that the information is important and that you are sympathetic to their situation, they will be more straightforward with responses and will be more likely to answer questions to the best of their ability. If they feel pressured to respond, or feel that the interview is a burden, they may not think about responses carefully.

Note: The introduction is important and will assist in releasing the in-charge and completing the interview with the pharmaceutical manager.

Make sure you ask the questions as they are written in the survey tool.

Speak slowly and clearly so that the people/person you are interviewing will have no difficulty in hearing or understanding the question. At times, you may need to repeat the question to be sure the respondent(s) understand(s) it. In those cases, do not paraphrase the question but repeat it as it is written. If, after you have repeated a question, the respondent(s) still do(es) not understand it, you may have to restate it. Be very careful when you change the wording, however, that you do not alter the meaning of the original question. As much as possible, wording that conveys the question so that respondents will understand should be discussed during training, and if appropriate, changes made in the survey tool at that time.

Note: This is why we go through the questions one by one. It is important that you know and understand the “spirit” of each question and how the information will be used.

Be straightforward.

There are many questions in the survey that ask about the availability of items, and then ask to see them. Providers will be more cooperative if they know beforehand what to expect. If you ask questions and then later ask to see items, people may think you are trying to trick them, or are “checking up” on their answer.

In order to have the greatest amount of cooperation, always tell the respondent what is coming. For example:

“Now I am going to ask you whether you have various types of equipment or supplies and whether they are in working order. After you answer all of them, I will need to see the items so that I can fill in this survey tool completely.”

Never suggest answers to the respondents.

If the respondents' answers are not relevant to a question, do not prompt them by saying something like, “I suppose you mean that...Is that right?” In many cases, the informants will agree with your interpretation of their answer, even when that is not what they meant. Instead, in most cases, you

should probe in such a manner that the informants themselves come up with the relevant answer, e.g., “Can you explain a little more?”
“There is no hurry. Take a moment to think about it.”

Specific questions for which it may be necessary to provide additional clarification will be discussed in the detailed instructions for completing the survey tools. Even in these cases, you should provide only the minimum information required for an appropriate response. Except when specifically instructed (e.g., when asking the client about his or her thoughts on the facility during the client interview), never read the list of coded answers to the respondents, even if they have trouble in answering the question. Keep in mind that you want an honest snapshot of what is happening in that facility.

Note: It is human nature for the interviewee to want to give the “right” answer. It is also human nature for the interviewer to want to make the person feel comfortable.

Ask all applicable questions.

In most cases, you will ask questions in the sequence in which they appear in the survey tool. However, because the organization of facilities often differs, you may find that to complete one module, you have to talk to more than one respondent or go to different areas of the facility. It is up to you to ensure that when you skip sections because the information must be collected from a different informant or location, you complete those sections before your departure.

Note: If you need to go back to questions with another respondent, it is helpful to develop a system that helps you quickly identify the questions. For example, circle the question, and before leaving the facility do a quick review of the tool to ensure that each question has been answered.

Handle hesitant respondents tactfully

There may be situations where the respondents simply say, “We don’t know,” give an irrelevant answer, act very bored or detached, contradict something they have already said, or refuse to answer the question. In these cases you must try to re-interest them in the conversation. For example, if you sense that they are growing restless, reassure them that there are not many more questions, and that the government is very interested in what they say about the services or their facility.

If the informants are giving irrelevant or elaborate answers (or complaining about something), do not stop them abruptly or rudely, but listen to what they have to say. Then try to steer them gently back to the original question. You can also write down what they say and tell them that it is duly noted. The interviewer must maintain a good atmosphere throughout the interview. The best atmosphere for an interview is one in which the respondents see the interviewer as a friendly, sympathetic, and responsive person who cares about them.

Minimize survey interference with the health workers’ ability to see patients.

If the health worker you need to see is busy with a client, wait until that visit is completed before approaching the health worker. Wait until there is a qualified person to show you around to complete the inventory and staff interview modules.

Offer no opinions or advice on specific facility practices during the actual interview.

If you are asked a question that you think requires your opinion or advice, simply respond that you are here to collect information to provide an overview of the stock availability, and you are interested in the systems and practices at this facility. Explaining this and then simply stating, “I’m not in a position to provide any advice or opinions,” may be sufficient.

If you observe what you consider to be wrong practices, make a note on the survey tool, but, again, make no comment or intervention until the end of the visit. At this time you can assist the facility by sharing your observations that you feel will improve its storage practices. Remember that the purpose of the survey is to collect information that will help to improve the health services overall.

Never raise expectations of immediate changes in the situation of the staff or facility.

Do not raise expectations that that you can immediately help solve problems that the staff or clients raise. You are going to provide information to decisionmakers, health planners, and administrators, but any changes as a result of the survey will most likely occur over an extended period and be gradual in implementation. If clients or staff complain about the poor state of repair of the facility, equipment, or supplies or other problems, provide a neutral or non-judgmental response (e.g., “I know these things are difficult”).

LOGISTICS INDICATORS

Product Availability

1. Stock Status

- Percent of facilities holding appropriate stock levels (i.e., between max-min stock levels) of a specific type of commodity at the time of the assessment
- Percent of facilities holding more than appropriate maximum stock levels of a specific type of commodity at the time of assessment
- Percent of facilities holding less than appropriate minimum stock levels of a specific type of commodity at the time of the assessment

2. Months of Stock on Hand

- Months of stock of products on the day of the visit

3. Stockouts

- Percent of facilities that were stocked out of a specific type of commodity at any point during the past six months
- Average duration of stockout of a specific type of commodity during past six months
- Percent of facilities stocked out of a specific type of commodity on the day of visit
- Frequency of stockouts
- Average number of stockouts by product

4. Expired Products

- Percent of facilities with expired products on the day of the visit
- Quantity of expired products on the day of the visit
- Months of stocks of expired commodities on the day of the visit

Storage and Inventory Management

1. Inventory Control

- Percent of facilities with updated stock cards for selected commodities
- Percent of facilities that receive the quantity ordered
- Percent of facilities with stock cards not matching physical counts for selected commodities

2. Storage and Quality Assurance

- Percent of facilities meeting at least 80 percent of the acceptable storage conditions

3. Transportation and Distribution

- Percent of facilities per type of transportation mostly used for commodity delivery
- Percent of facilities per delivery type

Logistics Reporting and Ordering

I. Logistics Management Information Systems

- Reported lead time
- Accuracy of logistics data for inventory management
- Percent of difference between quantity ordered and quantity received

Institutional Support

I. Logistics Training Needs

- Percent of facilities whose staff did not receive training in completing logistics forms

2. Supervision

- Percent of facilities that received supervision visit during specified period
- Percent of facilities that received commodity management supervision during specified period

Order Fill Rates

- Percent of facilities whose orders were completely filled
- Percent of warehouses that filled complete orders
- Percent of warehouses that filled a complete order by product

Checklists for Team Leaders and Monitors (LIAT)

Monitoring Quality Control Checklist Log

[NAME OF ASSESSMENT]

[COUNTRY, YEAR]

Name of Monitor: _____

State: _____

Instructions to Monitor: Select all instruments to check for quality according to the guidelines listed below. Record the unique identification number in the corresponding box on the **Unique Identification Number** line. When each item is complete and appropriate corrective actions have been taken as needed, place a tick (✓) in the corresponding box below the survey number.

	CHECK WHEN COMPLETE				
Unique Identification Number →					
Only BLUE ink has been used throughout the survey					
All handwriting is legible					
Skips were followed correctly throughout the survey					
All questions are answered					
Questions are not left blank inappropriately					
Units of count are recorded appropriately					
Any errors have used the double line method					
Tables are complete and filled out correctly (yes/no answered appropriately, dates recorded appropriately, numbers filled in correctly)					

Checklist Guidance:

Any errors made during the survey that needed correction have been corrected appropriately and according to the training guidelines.

If you make a mistake entering an answer, or the respondents change their reply, put two horizontal lines through the incorrect response. Do not try to erase or write over an answer.

Example of corrected response

221	What type of injection equipment is used during routine immunization sessions at this facility?	SINGLE USE 4 STERILIZABLE 2 OTHER <u>injection gun</u> 6 (SPECIFY)	
-----	---	---	--

Remember that if there are two responses for a particular question that requires only one response, it may be impossible when the data are being computerized later to determine the correct answer. If you write over an answer, the data entry staff frequently cannot determine which of the two responses you meant as the correct response.

Skips were followed correctly throughout the survey.

The questionnaire is set up to avoid as much redundancy as possible and ask only appropriate questions given a situation. Arrows are used throughout the questionnaires to give directions about the next question to ask (i.e., “to skip to”). It is very important to follow these skips, for they will increase the cooperation of the respondents. Skips enable the interviewer to collect the necessary information in as efficient a manner as possible.

Example of response indicating a “skip”:

204	If LMIS forms are used, are reports sent to the higher level?	YES.....1 NO..... 2 NOT APPLICABLE.....3 DON'TKNOW8	→ 207 → 207
-----	---	--	----------------

Tables are complete and filled out correctly (i.e., yes/no questions are answered appropriately; numbers are recorded appropriately).

In the table, if the questions asks for a “yes” or a “no” response, the response should indicate either “yes” or “no.” Similarly, if the table requires numbers, ensure that the response is in numbers.

The survey has been filled out legibly and with legible handwriting.

You should be able to clearly see which response may have been circled and read all names, written responses, and numbers. All written items should be printed. If an item is not legible, ask the data collector for clarification.

The units of count are recorded appropriately.

This is particularly important in the table. During the training, how the “units of count” are to be recorded has been specified. Ensure that each survey follows the same method of recording “units of count,” as defined during the training.

Standard Analysis Guidelines for Logistics Indicator Assessment Tool (LIAT)

Note:

- All indicators should be calculated for each product.
- Assumes standard practice that NO = 0 and YES = 1.
- Current steps assume *crosstabs* is needed to separate results by separate facilities. If facilities are grouped as one, *frequencies* can be run.

Indicator 1: Percentage of facilities that offer (X type of) services	
Question to answer	What percent of facilities offer (i.e., family planning) services?
What does it measure?	This indicator measures the total percentage of facilities in the sample that offer the specific type of service in question. Subsequent indicators are filtered by those facilities that answer “YES” to this variable.
How do you get it?	<p>Step 1: To determine the percent of facilities that offer a particular type of service by facility type, run a crosstabs between the facility type variable and the offer services variable:</p> <p><i>Analyze</i> → <i>Descriptive Statistics</i> → <i>Crosstabs</i> → (facility type variable) by (offer services variable)</p> <p>Click the <i>CELLS</i> button → Make sure the following are checked: <i>Counts</i> > > > <i>Observed</i> <i>Percentages</i> > > > <i>Row</i> <i>Noninteger Weights</i> > > > <i>Round Cell Count</i></p>
Sample Syntax	<p>CROSSTABS /TABLES = facility type variable BY offer services variable /FORMAT = AVALUE TABLES /CELLS = COUNT ROW /COUNT ROUND CELL.</p>

Indicator 2: Percentage of facilities with available stock cards by product	
Question to answer	What percent of facilities have stock cards available for each product managed at this facility?
What does it measure?	This indicator measures the percentage of facilities that have stock cards available for each product.
How do you get it?	<p><i>NOTE: Variables for this indicator are usually pulled from the Stock Status Table.</i></p> <p>Step 1: Filter for those facilities that manage product X at this facility.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF → (manage product at this facility variable) = 1 → CONTINUE → OK</i></p> <p><i>In the output box, select “filter out unselected cases”</i></p> <p>Step 2: Run a crosstabs between (facility type variable) and (stock card available variable)</p> <p><i>Analyze → Descriptive Statistics → Crosstabs → (facility type variable) by (stock card available variable)</i></p> <p><i>Click the CELLS button → Make sure the following are checked:</i> <i>Counts > > > Observed</i> <i>Percentages > > > Row</i> <i>Noninteger Weights > > > Round Cell Count</i></p>
Sample Syntax	<pre>USE ALL. COMPUTE filter_\$ = (manage product at this facility variable = 1). VARIABLE LABEL filter_\$ 'manage product at this facility variable = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE . CROSSTABS /TABLES = facility type variable BY stock card available variable /FORMAT = AVALUE TABLES /CELLS = COUNT ROW /COUNT ROUND CELL.</pre>

Indicator 3: Percentage of facilities with updated stock cards by product	
Question to answer	What percent of facilities have updated stock cards for each product managed at this facility?
What does it measure?	This indicator measures the percentage of facilities with updated stock cards (within the last 30 days prior to the date of the visit).
How do you get it?	<p><i>NOTE: Variables for this indicator are usually pulled from the Stock Status Table.</i></p> <p>Step 1: Filter for those facilities that have stock card available for product X.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF → (stock card available variable) = 1 → CONTINUE → OK</i></p> <p><i>In the output box, select “filter out unselected cases”</i></p> <p>Step 2: Run crosstabs function between (facility type variable) and (stock card updated variable)</p> <p><i>Analyze → Descriptive Statistics → Crosstabs → (facility type variable) by (stock card updated variable)</i></p>
Sample Syntax	<pre>USE ALL. COMPUTE filter_\$(stock card available variable = 1). VARIABLE LABEL filter_\$(stock card available variable = 1 (FILTER). VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$(f1.0). FILTER BY filter_\$. EXECUTE . CROSSTABS /TABLES = facility type variable BY stock card updated variable /FORMAT = AVALUE TABLES /CELLS = COUNT ROW /COUNT ROUND CELL.</pre>

Indicator 4: Percentage of facilities stocked out of product X within the last six months	
Question to answer	What percent of facilities were stocked out of a particular product in the last six months prior to the assessment?
What does it measure?	This indicator measures the percentage of facilities that experienced a stockout of product “X” during the six months prior to the assessment. As it measures product availability over a period of time, it is a proxy indicator for commodity availability at facilities for specific products.
How do you get it?	<i>NOTE: Variables for this indicator are usually pulled from the Stock Status</i>

	<p><i>Table.</i></p> <p>Step 1: Filter for those facilities that manage this product at the facility.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF →(manage product at this facility variable) = 1 → CONTINUE → OK</i></p> <p><i>In the output box, select “filter out unselected cases.”</i></p> <p>Step 2: Run a crosstabs between (facility type variable) and (stockout in most recent six months variable).</p> <p><i>Analyze → Descriptive Statistics → Crosstabs → (facility type variable) by (stockout in most recent six months variable)</i></p>
Sample Syntax	<p>USE ALL. COMPUTE filter_\$ = (manage product at this facility variable = 1). VARIABLE LABEL filter_\$ 'manage product at this facility variable = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE .</p> <p>CROSSTABS /TABLES = facility type variable BY stockout in most recent six months variable /FORMAT = AVALUE TABLES /CELLS = COUNT ROW /COUNT ROUND CELL.</p>

Indicator 5: Average frequency of stockouts of a product in the previous six months	
Question to answer	What is the average number of stockouts a facility experiences for product x in the last six months?
What does it measure?	This indicator measures an average for the total number times (how frequently) a facility is stocked out of product X during the six month period prior to the assessment. This is calculated by taking the average of the total number of stockouts for each product in question.
How do you get it?	<p>Step 1: Filter for those facilities by manage the product at the facility and experienced a stockout of product most recent six months variables.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF →(manage product at this facility variable) & (stockout of product most recent six months variable) = 1 → CONTINUE → OK</i></p> <p><i>In the output box, select “filter out unselected cases.”</i></p>

	<p>Step 2: Split file by facility type variable.</p> <p><i>Data → Split File → (click “compare groups”) → move facility type variable into box → select “file is already sorted”</i></p> <p>Step 3: Determine the mean.</p> <p><i>Analyze → Descriptive Statistics → Descriptives → move “no. of stockouts” variable into variable box → Click OPTIONS → Select mean, standard deviation, minimum, maximum, and variable list</i></p> <p>Step 4: Remember to run a SPLIT FILE OFF when completed.</p>
<p>Sample Syntax</p>	<pre>USE ALL. COMPUTE filter_\$ = (product managed at this facility variable & stockout most recent six months variable = 1). VARIABLE LABEL filter_\$ 'product managed at this facility variable & stockout most recent six months variable = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE . SPLIT FILE LAYERED BY facility type variable . DESCRIPTIVES VARIABLES = No. of stockouts variable /STATISTICS = MEAN STDDEV MIN MAX. SPLIT FILE OFF.</pre>

Indicator 6: Average number of days a product was stocked out in the previous six months	
Question to answer	How many days, on average, was a facility stocked out of product X during the previous six months?
What does it measure?	This indicator measures on average the number of days facilities did not have product X during the previous six months by level.
How do you get it?	<p>Step 1: Filter for those facilities that manage product X.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF → (manage product at this facility variable) = 1 → CONTINUE → OK</i></p>

	<p><i>In the output box, select “filter out unselected cases.”</i></p> <p>Step 2: Split file by facility type.</p> <p><i>Data → Split File → (click “compare groups”) → move facility type variable into box → select “file is already sorted”</i></p> <p>Step 3: Run a descriptives function.</p> <p><i>Analyze → Descriptive Statistics → Descriptives → move total no. of days stocked out variable into box → Click OPTIONS → Select mean, standard deviation, minimum, maximum, variable list</i></p> <p><i>Make sure to run SPLIT FILE OFF when completed.</i></p>
<p>Sample Syntax</p>	<pre>USE ALL. COMPUTE filter_\$ = (manage product at this facility variable = 1). VARIABLE LABEL filter_\$ 'manage product at this facility variable = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE . SPLIT FILE LAYERED BY facility type variable . DESCRIPTIVES VARIABLES = total number of days stocked out variable /STATISTICS = MEAN STDDEV MIN MAX. SPLIT FILE OFF.</pre>

Indicator 7: Average duration in days of stockouts during the previous six months	
<p>Question to answer</p>	<p>On average, how long did each stockout last?</p>
<p>What does it measure?</p>	
<p>How do you get it?</p>	<p>Step 1: Filter for those facilities that manage product X.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF → (manage product at this facility variable)=1 → CONTINUE → OK</i></p> <p><i>In the output box, select “filter out unselected cases”</i></p> <p>Step 2: Create a new variable that is divides <i>total no. of days stocked out variable</i> by</p>

	<p><i>number of stockouts variable.</i></p> <p><i>Transform → Compute → under “target variable,” provide a new name for the variable “Variable A” → under “numeric expression,” create the equation “total no. of days stocked out variable”/ “number of stockouts variable”</i></p> <p>Step 3: Split file by facility type.</p> <p><i>Data → Split File → (click “compare groups”) → move facility type variable into box → select “file is already sorted”</i></p> <p>Step 4: Run a descriptives function on new variable created.</p> <p><i>Analyze → Descriptive Statistics → Descriptives → move Variable A into box → Click OPTIONS → Select mean, standard deviation, minimum, maximum, variable list</i></p> <p><i>Make sure to run SPLIT FILE OFF when completed.</i></p>
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<p>Sample Syntax</p>	<pre>USE ALL. COMPUTE filter_\$ = (manage product at this facility variable = 1). VARIABLE LABEL filter_\$ 'manage product at this facility variable = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE. COMPUTE VARIABLE A = total no. of days stocked out variable / number of stockouts variable. EXECUTE. SPLIT FILE LAYERED BY facility type variable. DESCRIPTIVES VARIABLES = total number of days stocked out variable /STATISTICS = MEAN STDDEV MIN MAX. SPLIT FILE OFF.</pre>
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Indicator 8: Percentage of facilities stocked out on the day of the visit	
Question to answer	What percent of facilities are stocked out of product X on the day of the visit?

What does it measure?	This is one of the key indicators to measure product availability on the day of the visit. This indicator is also not dependent on the presence of a stock card at the facility. It is calculated based on the presence of stock inventory on the day of the visit.
How do you get it?	<p>Step 1: Filter for those facilities that manage product X.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF → (manage product at this facility variable)=1 → CONTINUE → OK</i></p> <p><i>In the output box, select “filter out unselected cases.”</i></p> <p>Step 2: Run a crosstabs between (facility type variable) and (stockout today).</p> <p><i>Analyze → Descriptive Statistics → Crosstabs → (facility type variable) by (stockout today variable)</i></p>
Sample Syntax	<pre>USE ALL. COMPUTE filter_\$ = (manage product at this facility variable = 1). VARIABLE LABEL filter_\$ 'manage product at this facility variable = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE. CROSSTABS /TABLES = facility type variable BY stockout today variable /FORMAT = AVALUE TABLES /CELLS = COUNT ROW /COUNT ROUND CELL.</pre>

Indicator 9: Percent discrepancy between physical inventory and stock card balance	
Question to answer	What is the percent discrepancy (no discrepancy, or +/- 10% discrepancy) between the physical inventory and stock card balance for product X at each facility level?
What does it measure?	This indicator measures the accuracy in recordkeeping of logistics data. Physical inventory is conducted to determine the actual physical count of product available on the day of the visit. Lowest possible unit of measure is used for conducting physical inventory. Depending on program goals this can be calculated within +/- 10%.
How do you get it?	<p>Step 1: Filter for those facilities that manage the product at the facility.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF → (manage product at this facility) = 1 → CONTINUE → OK</i></p>

In the output box, select “filter out unselected cases.”

Step 2:

Create a new variable that is the difference between the last balance on stockcard and the physical inventory of store.

Transform → Compute → under “target variable,” provide a new name for the variable “Variable A” → under “numeric expression,” create the equation “last balance on stock card variable” – “physical inventory of store variable”

Step 3:

Recode “Variable A” into a second variable to determine those with accurate stock card balances (i.e., no difference between the last balance on the stock card and the physical inventory, or 0 difference).

Transform → Recode → Into Different Variable → Input variable (Variable A) → provide Output Variable name (Variable B) and Label (Facilities with accurate stock card balances) → Click “Old and New Values” and input the following:

<u>Old Values</u>	<u>New Values</u>
0 (value)	0 (value)
Lowest thru -1 (range)	1 (value)
1 thru Highest (range)	1 (value)

Step 4:

Run a crosstabs between *facility type variable* and *Variable B*.

Analyze → Descriptive Statistics → Crosstabs → (facility type variable) by (Variable B)

Step 5:

Create a new variable that will calculate the percentage difference between last balance on stockcard and the physical inventory of store.

Transform → Compute → under “target variable,” provide a new name for the variable “Variable C” and label (percent difference between stockcard and physical inventory) → under “numeric expression,” create the equation: (last balance on stock card variable – physical inventory of store variable)/(physical inventory of store variable + .1)

Step 6:

Filter for those facilities that manage the product at the facility.

Data → Select Cases → If condition is satisfied... → IF → (manage product at this facility) = 1 → CONTINUE → OK

In the output box, select “filter out unselected cases.”

Step 7:

Recode Variable C to determine percentage that fall within a + or – 10% category.

	<p><i>Transform</i> → <i>Recode</i> → <i>Into Different Variable</i> → <i>Input variable (Variable C)</i> → <i>provide Output Variable name (Variable D) and Label (Near accurate balance of product X)</i> → <i>Click “Old and New Values” and input the following:</i></p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><u>Old Values</u></td> <td style="text-align: center;"><u>New Values</u></td> </tr> <tr> <td>MISSING</td> <td>SYSMIS</td> </tr> <tr> <td>-10 thru 10 (range)</td> <td>1 (value)</td> </tr> <tr> <td>ELSE</td> <td>0 (value)</td> </tr> </table> <p>Step 8: Run a crosstabs between <i>facility type variable</i> and <i>Variable D</i>.</p> <p><i>Analyze</i> → <i>Descriptive Statistics</i> → <i>Crosstabs</i> → (<i>facility type variable</i>) by (<i>Variable D</i>)</p>	<u>Old Values</u>	<u>New Values</u>	MISSING	SYSMIS	-10 thru 10 (range)	1 (value)	ELSE	0 (value)
<u>Old Values</u>	<u>New Values</u>								
MISSING	SYSMIS								
-10 thru 10 (range)	1 (value)								
ELSE	0 (value)								
<p>Sample Syntax</p>	<pre>USE ALL. COMPUTE filter_\$ = (manage product at this facility = 1). VARIABLE LABEL filter_\$ 'manage product at this facility = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE. COMPUTE VARIABLE A = last balance on stockcard - physical inventory of store. EXECUTE. RECODE VARIABLE A (0 = 0) (Lowest thru -1 = 1) (1 thru Highest = 1) INTO VARIABLE B . VARIABLE LABELS VARIABLE B 'Facilities with accurate stockcard balance.' EXECUTE. CROSSTABS /TABLES = facility type variable BY VARIABLE B /FORMAT = AVALUE TABLES /CELLS = COUNT ROW /COUNT ROUND CELL. COMPUTE VARIABLE C = 100* (last balance on stockcard - physical inventory of store)/(physical inventory of store + .1). VARIABLE LABELS VARIABLE C 'Percent difference between stockcard and physical'+ 'inventory.' EXECUTE. USE ALL. COMPUTE filter_\$ = (manage product at this facility = 1). VARIABLE LABEL filter_\$ 'manage product at this facility = 1 (FILTER).'</pre>								

	<p>VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE.</p> <p>RECODE VARIABLE C (MISSING = SYSMIS) (-10 thru 10 = 1) (ELSE = 0) INTO VARIABLE D. VARIABLE LABELS VARIABLE D 'Near accurate balance of product.' EXECUTE.</p> <p>CROSSTABS /TABLES = <i>facility type variable</i> BY VARIABLE D /FORMAT = AVALUE TABLES /CELLS = COUNT ROW /COUNT ROUND CELL.</p>
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Indicator 10: Months of stock on hand	
Question to answer	How many months of stock on hand of product X is available at each facility level?
What does it measure?	This indicator measures average months of stock available at the facility on the day of the visit. This indicator helps determine whether the facility is adequately stocked to meet the needs of its clients.
How do you get it?	<p>Step 1: Filter by if managed at this facility variable.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF → (managed at this facility variable)=1 → CONTINUE → OK</i></p> <p><i>In the output box, select “filter out unselected cases.”</i></p> <p>Step 2: Create a new variable (Variable A) that is the difference between (number of months of data available variable * 30 days) – (total number of days stocked out variable).</p> <p><i>Transform → Compute → under “target variable,” provide a new name for the variable “Variable A” → under “numeric expression,” create the equation (“no. of months of data available variable” * 30) – “total no. of days stocked out variable.”</i></p> <p>Step 3: Create a new variable (Variable B) that divides the variable created in Step 2 (Variable A) by 30. The new variable is the number of months where stock is available.</p> <p><i>Transform → Compute → under “target variable,” provide a new name for the</i></p>

	<p>variable "Variable B" → under "numeric expression," create the equation "Variable A"/ 30).</p> <p>Step 4: Create a new variable (Variable C) that is the physical inventory variable divided by (total dispensed most recent six months variable divided by Variable B).</p> <p><i>Transform → Compute → under "target variable," provide a new name for the variable "Variable C" → under "numeric expression," create the equation physical inventory variable/ (total dispensed most recent 6 months variable/ Variable B).</i></p> <p>Step 5: Split the file by facility type variable.</p> <p><i>Data → Split File → (click "compare groups") → move facility type variable into box</i></p> <p>Step 6: Run a descriptives function of Variable C.</p> <p><i>Analyze → Descriptive Statistics → move Variable C into box → Click OPTIONS → Select mean, standard deviation, min, max, variable list</i></p> <p><i>Make sure to run SPLIT FILE OFF when completed.</i></p>
<p>Sample Syntax</p>	<p>USE ALL. COMPUTE filter_\$ = (<i>managed at this facility variable</i> = 1). VARIABLE LABEL filter_\$ '<i>managed at this facility variable</i> = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE.</p> <p>COMPUTE Variable A = (<i>no. of months of data available variable</i> * 30) - <i>total no. of days stocked out variable</i>. EXECUTE.</p> <p>COMPUTE Variable B = Variable A / 30. EXECUTE.</p> <p>COMPUTE Variable C = <i>physical inventory of store variable</i> / (<i>total dispensed most recent 6 months variable</i> / Variable B). EXECUTE.</p> <p>SPLIT FILE. LAYERED BY <i>facility type variable</i> .</p> <p>DESCRIPTIVES VARIABLES = Variable C /STATISTICS =MEAN STDDEV MIN MAX.</p>

	SPLIT FILE OFF.
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Indicator 11: Percent of facilities that maintain acceptable storage conditions

Question to answer	What percent of facilities falls within the unacceptable, acceptable, and excellent ranges for storage conditions?								
What does it measure?	This indicator measures the percentage of facilities that meet acceptable storage conditions required to protect the integrity of products. This indicator is applied to measure unacceptable (0–10 conditions met); acceptable (11–13 conditions met); and excellent 13–14 conditions met).								
How do you get it?	<p>Step 1: Filter by if facility offers services variable.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF → (offer services variable)=1 → CONTINUE → OK</i></p> <p><i>In the output box, select “filter out unselected cases.”</i></p> <p>Step 2: Create a new variable that adds the individual storage conditions together (SC1, SC2, SC3, etc.).</p> <p><i>Transform → Compute → Type in a new Target Variable name (Variable A) → In the Numeric Expression Box, add the storage conditions (SC1 + SC2 + SC3 + etc.) → Click OK</i></p> <p>Step 3: Create a new variable (Variable B) from that created in Step 2 (Variable A).</p> <p><i>Transform → Recode → Into Different Variable → Move Variable A into Numeric Variables box → Provide an Output Variable name and label (Variable B) → Click Change → Click Old and New Values →</i></p> <table border="0"> <thead> <tr> <th><u>Old Value</u></th> <th><u>New Value</u></th> </tr> </thead> <tbody> <tr> <td>0 thru 10 (range)</td> <td>1 (unacceptable)</td> </tr> <tr> <td>11 thru 13 (range)</td> <td>2 (acceptable)</td> </tr> <tr> <td>13.01 thru 14 (range)</td> <td>3 (excellent)</td> </tr> </tbody> </table> <p><i>Click Continue → Click OK</i></p> <p>Step 4: Run a crosstabs between facility type variable and Variable B.</p> <p><i>Analyze → Descriptive Statistics → Crosstabs → (facility type variable) by (Variable B)</i></p>	<u>Old Value</u>	<u>New Value</u>	0 thru 10 (range)	1 (unacceptable)	11 thru 13 (range)	2 (acceptable)	13.01 thru 14 (range)	3 (excellent)
<u>Old Value</u>	<u>New Value</u>								
0 thru 10 (range)	1 (unacceptable)								
11 thru 13 (range)	2 (acceptable)								
13.01 thru 14 (range)	3 (excellent)								

<p>Sample Syntax</p>	<pre> USE ALL. COMPUTE filter_\$ = (offer services variable = 1). VARIABLE LABEL filter_\$ 'offer services variable = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE. COMPUTE Variable A = SC1 + SC2 + SC3 + SC4 + SC5 + SC6 + SC7 + SC8 + SC9 + SC10 + SC11 + SC12 + SC13 + SC14 . EXECUTE. RECODE Variable A (0 thru 10 = 1) (11 thru 13 = 2) (13.01 thru 14 = 3) INTO Variable B. VARIABLE LABELS Variable B 'Variable B label.' EXECUTE. CROSSTABS /TABLES = facility type variable BY Variable B /FORMAT = AVALUE TABLES /CELLS = COUNT ROW /COUNT ROUND CELL. </pre>
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Indicator 12: Percent of facilities that meeting individual storage conditions	
<p>Question to answer</p>	<p>What percent of facilities meets each of the individual storage conditions?</p>
<p>What does it measure?</p>	<p>This indicator measures the percentage of facilities that meet individual storage conditions required to protect the integrity of products.</p>
<p>How do you get it?</p>	<p>Step 1: Filter by the facility offers services variable.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF → (offer services variable)=1 → CONTINUE → OK</i></p> <p><i>In the output box, select “filter out unselected cases.”</i></p> <p>Step 7: Run a crosstabs between facility type variable and each of the individual storage conditions.</p> <p><i>Analyze → Descriptive Statistics → Crosstabs → (facility type variable) by (SC1 SC2 SC3 SC4 SC5 SC6 SC7 SC8 SC9 SC10 SC11 SC12 SC13 SC14)</i></p>
<p>Sample Syntax</p>	<p>USE ALL.</p>

```
COMPUTE filter_$ = ( offer services variable = 1).
VARIABLE LABEL filter_$ 'offer services variable = 1 (FILTER).'  
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected.'  
FORMAT filter_$ (f1.0).  
FILTER BY filter_$.  
EXECUTE.  
  
CROSSTABS  
  /TABLES = facility type variable BY SC1 SC2 SC3 SC4 SC5 SC6 SC7  
SC8 SC9 SC10 SC11 SC12 SC13 SC14  
  /FORMAT = AVALUE TABLES  
  /CELLS = COUNT ROW  
  /COUNT ROUND CELL.
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Indicator 13: Percent of facilities stocked between minimum and maximum inventory levels

<p>Question to answer</p>	<p>What percent of facilities falls above the minimum established stocked levels and below the maximum established stock levels?</p>								
<p>What does it measure?</p>	<p>This indicator measures the percent of facilities whose stock levels are adequate to meet consumption rates for programmatically set max-min levels (i.e., fall within the established minimum and maximum levels). The established max-min levels may vary by product type and facility type.</p>								
<p>How do you get it?</p>	<p>Step 1: Filter by if facility offers services variable.</p> <p><i>Data</i> → <i>Select Cases</i> → <i>If condition is satisfied...</i> → <i>IF</i> → <i>(offer services variable)=1</i> → <i>CONTINUE</i> → <i>OK</i></p> <p><i>In the output box, select “filter out unselected cases.”</i></p> <p>Step 2: Use the final variable created in Indicator 9 (Steps 2–4) for remaining steps.</p> <p><i>Referred to as Variable X</i></p> <p>Step 3: Recode Variable X into a new variable with new values based on minimum and maximum levels (assuming 1 month minimum, 1–2 months as between max-min levels, and greater than 2 months as maximum).</p> <p><i>Transform</i> → <i>Recode</i> → <i>Into Different Variable</i> → <i>Transfer Variable X into box and fill in “Output Variable” with new name (Variable Y) and label</i> → <i>Click Change</i> → <i>Click Old and New Values</i> →</p> <table border="0" data-bbox="508 1318 1136 1455"> <thead> <tr> <th><u><i>Old Value</i></u></th> <th><u><i>New Value</i></u></th> </tr> </thead> <tbody> <tr> <td>Lowest thru .99</td> <td>1 (less than min)</td> </tr> <tr> <td>1 thru 2 (range)</td> <td>2 (between min and max)</td> </tr> <tr> <td>2.01 thru Highest</td> <td>3 (above max)</td> </tr> </tbody> </table> <p>Step 4: Run a crosstabs between facility type variable and Variable Y.</p> <p><i>Analyze</i> → <i>Descriptive Statistics</i> → <i>Crosstabs</i> → <i>(facility type variable) by (Variable Y)</i></p>	<u><i>Old Value</i></u>	<u><i>New Value</i></u>	Lowest thru .99	1 (less than min)	1 thru 2 (range)	2 (between min and max)	2.01 thru Highest	3 (above max)
<u><i>Old Value</i></u>	<u><i>New Value</i></u>								
Lowest thru .99	1 (less than min)								
1 thru 2 (range)	2 (between min and max)								
2.01 thru Highest	3 (above max)								
<p>Sample Syntax</p>	<p>USE ALL. COMPUTE filter_\$ = (<i>managed at this facility variable</i> = 1). VARIABLE LABEL filter_\$ '<i>managed at this facility variable</i> = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0).</p>								

	<p>FILTER BY filter_\$. EXECUTE.</p> <p>COMPUTE Variable A = (no. of months of data available variable* 30) - total no. of days stocked out variable . EXECUTE.</p> <p>COMPUTE Variable B = Variable A/30. EXECUTE.</p> <p>COMPUTE Variable C = physical inventory variable / (total dispensed most recent 6 months variable / Variable B). EXECUTE.</p> <p>RECODE Variable X (Lowest thru .99 = 1) (1 thru 2 = 2) (2.01 thru Highest = 3) INTO Variable Y. VARIABLE LABELS Variable Y 'variable Y label.' EXECUTE .</p> <p>CROSSTABS /TABLE S= facility type variable BY Variable Y /CELLS = COUNT ROW /COUNT ROUND CELL.</p>
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Indicator 14: Method mix availability on the day of the visit (from a specific product category, e.g., contraceptives)	
Question to answer	Is there a stockout of one or more of a specific type of product on the day of the visit?
What does it measure?	This indicator measures the percentage of facilities stocked out of one or more products (from a product specific category) on the day of the visit. Method mix availability is also an indicator of product availability.
How do you get it?	<p>Step 1: Filter by if facility offers services variable.</p> <p><i>Data → Select Cases → If condition is satisfied... → IF → (offer services variable)=1 → CONTINUE → OK</i></p> <p><i>In the OUTPUT box, select "filter out unselected cases."</i></p> <p>Step 2: Compute a new variable which counts all products of interest (i.e., temporary methods).</p> <p><i>Transform → Count → Provide a new target Variable Name and Target Label → Move all products of interest from "stockout today" category to the Variable Box</i></p>

	<p>→ Click Define Variables → Under Values, write “1” → Add → Continue → OK</p> <p>Step 3: Run a crosstabs between facility type variable and Variable A.</p> <p>Analyze → Descriptive Statistics → Crosstabs → (facility type variable) by (Variable A)</p>
Sample Syntax	<p>USE ALL. COMPUTE filter_\$ = (managed at this facility variable = 1). VARIABLE LABEL filter_\$ ‘managed at this facility variable = 1 (FILTER).’ VALUE LABELS filter_\$ 0 ‘Not Selected’ 1 ‘Selected.’ FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE.</p> <p>COUNT Variable A = product X product Y product Z (1). VARIABLE LABELS Variable A stockouts of products X Y Z on the day of the visit. EXECUTE.</p> <p>CROSSTABS /TABLES = facility type variable BY Variable A /CELLS = COUNT ROW /COUNT ROUND CELL.</p>

Other Indicators	
What are they?	<p>Other indicators can include:</p> <ul style="list-style-type: none"> - Percent of facilities that manage (e.g., family planning) commodities - Percent of reports that have reports for (e.g., family planning) commodities - Percent of facility personnel managing (e.g., family planning) commodities - How commodity managers learned to complete forms/records - Supervision visits received by commodity managers
How do you get it?	<p>Generally, remaining indicators will involve filtering by an “if managed” variable and/or running crosstabs. Sample syntax for several remaining indicators is listed below.</p>
Sample Syntax	<p><u>Percent of facilities that manage (e.g., family planning) commodities</u></p> <p>CROSSTABS /TABLES = facility type variable BY offer services variable /FORMAT = AVALUE TABLES</p>

	<pre> /CELLS = COUNT ROW /COUNT ROUND CELL. <u>Percent of reports that have reports for (e.g., family planning) commodities</u> USE ALL. COMPUTE filter_\$ = (offer services variable = 1). VARIABLE LABEL filter_\$ 'offer services variable = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE. CROSSTABS /TABLES = facility type variable BY report variable /FORMAT = AVALUE TABLES /CELLS = COUNT ROW /COUNT ROUND CELL. <u>Percent of facility personnel managing (e.g., family planning) commodities</u> USE ALL. COMPUTE filter_\$ = (offer services variable = 1). VARIABLE LABEL filter_\$ 'offer services variable = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE. CROSSTABS /TABLES = facility type variable BY person responsible for managing variable /FORMAT = AVALUE TABLES /CELLS = COUNT ROW /COUNT ROUND CELL. <u>How commodity managers learned to complete forms/records</u> USE ALL. COMPUTE filter_\$ = (offer services variable = 1). VARIABLE LABEL filter_\$ 'offer services variable = 1 (FILTER).' VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected.' FORMAT filter_\$ (f1.0). FILTER BY filter_\$. EXECUTE. CROSSTABS /TABLES = facility type variable BY main way learned to complete forms/records variable /FORMAT = AVALUE TABLES </pre>
--	--

```
/CELLS = COUNT ROW  
/COUNT ROUND CELL.
```

Supervision visits received by commodity managers

```
USE ALL.  
COMPUTE filter_$ = (offer services variable = 1).  
VARIABLE LABEL filter_$ 'offer services variable = 1 (FILTER).'  
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected.'  
FORMAT filter_$ (f1.0).  
FILTER BY filter_$.  
EXECUTE.
```

CROSSTABS

```
/TABLES = facility type variable BY last time received supervision  
visit variable  
/FORMAT = AVALUE TABLES  
/CELLS = COUNT ROW  
/COUNT ROUND CELL.
```

Reference for Stock Status Table

- Column 1: Name of the product
- Column 2: Unit of count for the product
- Column 3: Whether or not the product is managed at this facility, answer Y for yes or N for no. Skip to the next product
- Column 4: Check whether the stockcard is available; answer Y for yes or N for no.
- Column 5: Check whether the stockcard had been updated within the last 30 days; answer Y for yes or N for no. Note: If the stockcard was last updated with a balance of 0 and the facility has not received any resupply, consider the stockcard up to date.
- Column 6: Record the balance on the stockcard.
- Column 7: Record whether the facility is experiencing a stockout of the product on the day of the visit; answer Y for yes or N for no.
- Column 8: Record whether the facility has had any stockout of the product between July and December 2005; answer Y for yes or N for no.
- Column 9: Record how many times the product stocked out between July and December 2005.
- Column 10: Record the total number of days the product was stocked out between July and December 2005.
- Column 11: Record the quantity of product issued from the storeroom between July and December 2005. Note: If the answer to column 4 is No, record NA in this column.
- Column 12: Record the number of months the issued data represent (may be less than six), record the months for which there are any data recorded, including 0. Note: If column 4 is No, record NA in this column.
- Column 13: Record the quantity of product in the storeroom. Estimate to one-quarter of a bottle for open containers of tablets.
- Column 14: Record the quantity of expired products. Count all expired products on the day of the visit. If there are products that are near expiry (within one week), please note in the comments section.

Product	Units of count	Managed at this facility?	Stockcard available? (Y/N)	Stockcard updated? (Y/N)	Balance on stockcard	Stockout today (Y/N)?	Stockout last six months (Y/N)?	Number of stockouts	Total number of days	Total issued	# of mos. of data available	Physical inventory - Store room	Quantity of expired products
1	2	3	4	5	6	7	8	9	10	11	12	13	14

No.	Indicator	Formula	Where do you get it?
1	Percentage of facilities that manage “X” product	# of facilities that manage “X” * 100/Total # of facilities visited	Column 3
2	Percentage of facilities that have stockcard available	# of facilities that have stockcard available *100/Total # of facilities that manage product “X”	Column 4
3	Percentage of facilities with updated stock cards	# of facilities that have stockcard updated * 100/ # of facilities that have stockcard available	Column 5
4	Percentage of facilities stocked out in the last six months	# of facilities stocked out in the last six months * 100/# of facilities that manage product “X”	Column 7
5	Average duration of stockout in the last six months	# of days of stockout in the last six months /Total # of stockouts	Column 9 / Column 8.
6	Average number of days of stockout	# of days of stockout/total # of facilities stocked out in the last six months	Column 9
7	Average frequency of stockout per product	Total # of stockouts *100/ facilities stocked out in the last six months	Column 8
8	Percentage of facilities stocked out on the day of the visit	# of facilities stocked out on the day of the visit * 100 / # of facilities that manage “X” product	Column 13
9	Percentage of facilities where stockcard does not match physical inventory	Balance on stockcard – physical inventory * 100/physical inventory	(Column 6– Column 12) * 100/ Column 12
10	Months of Stock on Hand (MOSH)	Total # of days with stock available = (Months of stock data available) * 30 – (total # of days of stockout) Months of data available = total # of days with stock available/30 AMC = Total issued/months of data available MOSH = Physical inventory/Average Monthly Consumption (AMC)	Total # of days with stock available = (Months of stock data available) * 30 – (total # of days of stockout) Months of available data = total # of days with stock available/30 AMC = Column 11/Months of available data MOSH = Column 13/AMC
11	Percentage of facilities stocked between their minimum and maximum inventory levels	# of facilities stocked below, at, or above their established max levels * 100/total # of facilities that manage product	MOSH (recoded into categories for those above their min, within the range of max-min, or below their min levels)
12	Percentage of facilities meeting adequate storage conditions	# of storage facilities meeting each storage condition/total # of facilities visited	Storage conditions
13	Method mix availability on the day of the visit	# of facilities that stocked out of a specific product(s)on the day of the visit/Facilities that manage product “X”	

* Run indicators for each product; run analysis separately by facility type and by region.

Preparatory Steps for Assessment Organizers

In-country staff should undertake the following preparatory steps:

- Once the data collectors and supervisors are hired, country office should notify them of the dates, times, and location of the training. Make sure that they are available for the total length of the training and for the duration of the data collection. Training is required for all data collectors and supervisors, regardless of whether they have participated in prior surveys in the past.
- Obtain prepaid mobile phones for team leaders if they do not already have them. If they do have them, find out whether they will need cards for additional airtime minutes or reimbursements for calls related to the survey. If appropriate, purchase additional minutes for all data collectors.
- Prepare a list of contact information for all team leaders, monitors, and program staff cell phones so teams can stay in touch in the field.
- Make arrangements for a room, laptop, and projector for the data collector training. Collect examples of the commodities being assessed. Familiarizing data collectors with the packaging and unit of count of each product will help ensure an accurately counted inventory.
- Make arrangements for a room and computers for the data entry staff to use in their training and for data entry.
- Purchase name tags, pencils, pencil sharpeners, erasers, one stapler per team, one small calculator per team, sturdy bags for data collectors to use to carry their questionnaires, and clipboards for them to write on in the field.
- Purchase manila envelopes for the data collectors to use to organize questionnaires.
- Make sure there is sufficient paper and copier ink on hand for printing the questionnaires or identify outside services that can be used for the printing. Consider whether offsite printing will be needed for the questionnaires. If so, get quotes.
- Check into sources of vehicles to transport the data collectors and study coordinator to the field; get quotes as needed. There should be one vehicle per team and one for the study coordinator and program staff.
- If the training materials need to be translated into a foreign language, the country team should request this in advance or arrange for it to be done locally. Local program staff fluent in local languages should check the translations.
- Team leaders should carry additional funds to cover unforeseen incidents (e.g., vehicle repair).
- Provide per diem for teams based on country-specific protocols and accounting regulations.

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

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