MONITORING AND EVALUATION OF NUTRITION AND NUTRITION-RELATED PROGRAMMES

A Training Manual for Programme Managers and Implementors

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Academy for Educational Development
USAID Bureau for Africa, Office of Sustainable Development

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ISBN: 9966-9668-0-3

Published in July 1999 by the University of Nairobi Applied Nutrition Programme.

Reprinted in August 2000 by the Sustainable Approaches to Nutrition in Africa (SANA) Project, operated by the Academy for Educational Development.

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ACKNOWLEDGMENTS

The development of this manual would not have been possible without the work of many dedicated professionals. The manual is based on the publication entitled *Monitoring and Evaluation: A Guidebook for Nutrition Project Managers in Developing Countries*. Levinson FJ, Rogers B, Hicks K, Schaetzel T, Troy L, Young C. The Human Development Department. The World Bank *(in press)*. The contributors to this manual are:

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Support for the development and testing of this training manual was provided by USAID's Bureau for Africa, Office of Sustainable Development, through the Sustainable Approaches to Nutrition in Africa (SANA) Project, Cooperative Agreement Number AOT-0561-A-00-5232-00, operated by the Academy for Educational Development.

GLOSSARY OF WORDS

Benefits:	the broader, sustainable changes in public health or economic status that a program seeks to achieve but which are inevitably influenced by a wide range of other factors.
Constraints Assessment:	the systematic identification of constraints inhibiting project effectiveness. The constraints are then organized to permit the identification of technical, policy, research, and training means of addressing them.
Control Group:	subjects or people in an experimental evaluation design who share the same characteristics with the participants but do not receive the service, and who provide a baseline against which the impact/effect can be measured.
Cost-Delivery Analysis:	study of the cost incurred to deliver a specified set and quantity of goods and services (outputs) to a targeted population.
Cost-Effectiveness Analysis:	a study of the costs incurred to achieve a specific change in or impact/effect on a targeted population.
Evaluation:	a process of data collection designed to assess the effectiveness of the project in attaining its originally-stated objectives, and the extent to which observed changes are attributable to the project.
Experimental Design:	a rigorous evaluation design which includes a control group, randomization, and pre/post project data.
Focus Groups:	small group discussions led by a trained moderator who introduces a specific topic and uses a set of questions to facilitate participation by all group members.
Goals:	the broad aims of the project; the significant, longer-term changes that planners expect to occur as a result.
Impacts:	changes in the condition of the target population which generally reflect the primary objectives of the project.

Indicator:	an objectively verifiable measurement which reflects the activity, assumption, or effect being measured.
Input Assumptions:	the expectations regarding the effectiveness and quality of the project inputs.
Inputs:	the materials, goods and actions necessary to carry out the primary project activities.
Key Informant Interviews:	a face-to-face meeting between a trained interviewer and a knowledgeable person in the area of interest who is willing to share information and insight with the researcher, or a person likely to offer informed views.
Management Information System:	a tool, often computerized, which is used to compile and analyse monitoring data.
Monitoring:	the on-going collection and review of information on project implementation, coverage and utilization of inputs.
Objectives:	operationalized goals which specify the results and the level of change expected.
Outcomes:	the intermediate effects, often behavioural, resulting directly from project outputs that may be necessary to achieve a desired impact.
Output Assumptions:	expectations regarding the ways goods and services (outputs) will be used by the target population.
Outputs:	the provision of project goods and services to the target population. The primary project activities.
Proxy Indicator:	a measurement used as a substitute when true indicators are too difficult to measure directly.
Quasi-experimental Design:	evaluation designs that eliminate competing explanations of project effects without the benefit of a true control group.
Sample:	subset of a population which is used to represent the entire group.
Sensitivity Analysis:	a means of exploring how plausible changes in

assumptions about uncertain variables affect conclusions.

Special Studies: studies to investigate issues raised before or during project implementation which can not be addressed through on-going project monitoring.

Stakeholders: individuals or organizations associated with or affected by a project.

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IMPORTANT INFORMATION FOR THE FACILITATOR

INTRODUCTION

Welcome to this training manual on monitoring and evaluation. This manual has been designed to assist facilitators to train development and nutrition programme managers and those working on nutrition-related activities on how to design a monitoring system and develop an evaluation plan. The training may be conducted in a two-week workshop or through a short course of the same duration. The training is intended to equip participants with knowledge and skills to enable them to plan, conduct and analyse the results of monitoring and evaluation activities and to use them to improve their programmes.

The manual has **7 UNITS** which cover the necessary tasks and information for a programme manager to design a monitoring system and develop an evaluation plan.

Individually, the units can be used to update development and nutrition workers or programme managers on specific skills. For example, if a programme manager or a supervisor realizes that his/her staff require additional information on how to select indicators for a monitoring system, they should refer to Unit 3. Look through the manual to see how it is organized and to get familiar with the contents of each unit.

HOW EACH UNIT IS ORGANIZED

Each unit may have one or more sessions. At the beginning of each unit is a list of sessions and the approximate time they take. Each unit has the following parts:

Unit Title: The unit title and number is given.

Purpose of the Unit: This is a brief paragraph which indicates what the unit is about and why it is important.

Objectives: These reflect the knowledge and skills participants should acquire by the end of the unit. At the beginning of each unit, you should clearly state the objectives so that the participants know what they will be expected to learn. The objectives inform the participants what they should be able to do once learning has taken place.

Unit Overview: An abbreviated list of the key sessions within the unit and the approximate time for each is given.

Time: This is the suggested time that the entire unit should take. Depending on the level of skill the participants have, individual sessions may take more or less time.

Advance Preparation: This tells you what you should prepare before the session. This includes the following:

> **Handouts:** In several of the sessions, there are handouts listed. You will need to make copies of these handouts for each participant.
>
> **Transparencies:** In almost all units, there are transparencies. These need to be prepared in advance of the session.
>
> **Materials:** These are the materials that you need to successfully conduct the training session. If any of these are not available, try to find a substitute. They should be tried out before the session to ensure that they are relevant and suitable.

Procedure: These are the detailed steps in the session which include content, exercises and facilitation techniques. The facilitation techniques that are given are only suggestions and you are advised to adapt any other technique that is more appropriate for your participants.

PREPARING FOR TRAINING

The first thing that ensures a successful start to training is the course preparation that must be done long before the first day of the course. This must be done properly and efficiently. For example, you must have developed the training programme and the training course objectives. Secondly, the administrative arrangements of the training course, such as booking a suitable venue and sending letters of invitation to participants, should have been done in good time. Travel arrangements to the venue should also be properly arranged. As a course organizer and facilitator, it is a good idea to arrive at the training venue ahead of the participants. This will enable you to welcome the participants and give them any information they may need.

CHECKLIST

Here is a checklist with the things you need to do to prepare for the training. Remember that this list is not exhaustive.

Before the Training

Before the training there are a number of activities that you need to organize. The timing for each of these depends on the nature of the activity.

___ Identify training needs

___ Identify number of participants

___ Select dates for training course

___ Make a list of all necessary materials

___ Get quotations for the venue

___ Secure the necessary funding

___ Organize and purchase the stationery and other materials

___ Book the venue

___ Identify and select facilitators, resource persons and special guests

___ Arrange for field visit(s)

___ Send invitations to speakers, resource persons, and special guests

___ Send invitation letters to participants with programme summary and travel arrangements

___ Reconfirm the venue, training facilities, food and accommodation

___ Arrange transportation to and from the venue

___ Arrange for equipment

___ Prepare teaching notes and handouts

___ Plan and organize an opening and closing and press coverage, if necessary

During the Training

During the training, the facilitator has several administrative tasks to perform. Some of these tasks can be delegated during Steering Committee Meetings. These will help to ensure the smooth running of the course. Here is a checklist of some of these tasks.

___ Make sure that all equipment and materials are available and in good working condition

___ Manage and monitor registration, reception, opening and sessions

___ Manage and monitor meals, breaks, special events and closing of the training course

___ File all training course documentation (flipcharts and notes)

___ Prepare participants' address list and distribute

___ Monitor expenses in relation to established budget

___ Reconfirm participants' departure arrangements

___ Optional: Arrange for group photo and press coverage

___ Arrange for daily room clean-up

Team Facilitation

Training is often more fun and less stressful when more than one person conducts the training sessions. If you are training more than 15 participants at one time, you need to have two or three facilitators. However, if co-facilitators and outside resource people are not properly prepared, they can make more work for you. Before the training begins, it is important for co-facilitators to discuss the following issues:

- Who is responsible for what part of the training or session plan?
- Is there a lead facilitator?
- What assumptions does each make about the training?
- If there is a lead facilitator, what assistance does he/she need from the other facilitator(s) during the session?

Ideally, you should use a team teaching approach to present the contents of this training manual. This can be done with co-facilitators and/or occasionally with resource persons. In order to team teach well, it is important for each member of the team to prepare well and present the session plans clearly. As a team, facilitators should be supportive of their colleagues and work together to build a strong team spirit. If possible, involve some of the participants who you feel can assist in the facilitation of some of the training course sessions.

Resource People

Resource people are technical experts you can call on to facilitate a unit or a specific session within a unit. Unlike facilitators they are often not expected to be present for the duration of the training course. If you decide to use resource people or outside experts, you should select people who are qualified, competent and knowledgeable in the areas they will be presenting at the training course. You will need to contact resource people

at least one month before the training course and do the following:

- orient them about your programme, the training course and its objectives;
- give them the programme, including the unit objectives, timetable, knowledge level and number of participants, and details about the venue;
- review the session with them, listening to them describe what they are going to do and making sure they understand the importance of keeping with the agenda and its objectives;
- arrange transport, if necessary;
- after the training, be sure to send a thank you letter, noting any relevant information from the participants' evaluation.

For team facilitation, you need to plan and prepare the sessions as a group by studying the steps in each procedure and the additional notes for facilitators. The facilitators should agree on which parts of the session each one is teaching. They also need to prepare the flipcharts and handouts for the session.

Overview of the Training Manual

Each unit has experiential activities that address the unit's objectives in a variety of interesting ways. Each activity specifies the purpose, the materials needed, approximate time required, and the steps to follow in each session. Some activities include preparation that must be made prior to the session. Some activities have accompanying Handouts for participants, Transparencies, and Additional Notes for Facilitators; the latter provide supplemental information for you.

To design and conduct a programme tailored to the needs of the participants, you need to do the following:

- familiarize yourself with the entire Training Manual. In particular, consult the suggestions for conducting experiential learning activities and small group discussions. Note the use of additional information for facilitators and the text typed in boldface;
- determine your time frame. The time allocated for each activity is only a guide;
- prepare any handouts or other materials that may be needed before the session begins. If guest speakers are required, make sure they are invited well ahead of time and have been properly briefed as to what you expect;
- introduce each unit of the package by going over the objectives for that

particular unit with the participants.

Many of the activities contained in the Training Manual require no more than pens and Handouts for participants, and board and chalk or newsprint and markers for you. Others require index or manila cards, masking tape, extra paper, scissors, and a basket or a container of some sort. A few activities require a guest speaker or a panel of speakers, so this must be planned well in advance.

Have a 'Question Box' available throughout the duration of the training. Decorate an old cardboard box or other container and cut a slot in the top to insert index or manila cards. Encourage the participants to write any questions they have and assure them that there is no such thing as a 'dumb question.' Giving the participants an opportunity to ask questions anonymously helps ensure that you can address their concerns promptly and appropriately. Make sure you read the questions in the question box daily and reply to them the following day.

FACILITATION TECHNIQUES

Experiential Education

Experiential activities in this programme are designed to help participants gain information, examine attitudes and practice skills. There are structured exercises in which the participants do something and then process the experience together, generalizing about what they learned and, ideally, attempting to apply it to future situations. Experiential learning is participant-centred. You should therefore ensure that you involve the participants by utilizing their knowledge and experiences. While your role as facilitator is crucial, creating the learning experience is ultimately a group responsibility.

One of the ways to make this training successful is to involve the participants in their own education. The fun of working together with participants in experiential programmes is learning how much you can learn from them! Here are some tips for conducting experiential activities:

- Review the unit and activities thoroughly until you feel comfortable with the steps.
- If possible, do a 'dry-run' before introducing a new activity to the group.
- Consider the learning points of the activity and prepare questions to trigger discussion.
- Arrange the room ahead of time to suit the activity, so you do not waste time hanging signs, newsprint or moving chairs. The chairs should be

placed in a circle or semi-circle, in front of the board or the flip chart. If space permits, have the participants sit at tables which should be used for note taking, completing handouts and keeping their files or notebooks. Keep one or two in the corner of the room for your supplies and materials.

- Keep an eye on the clock so there is sufficient time for group sharing and discussion.

- Remember, doing the activity is fun, but it is in the processing of the experience that learning takes place.

Specific Techniques

The Training Manual employs a variety of techniques, some of which you may be more comfortable with than others. Do not be afraid to try new techniques. There are many different kinds of activities in the units including role-plays, games, brainstorming, small group work, problem-solving scenarios, and presentations by guest speakers. Here is a brief description of some of them.

VIPP VIPP means Visualization in Participatory Programmes. VIPP involves the use of different shapes of coloured cards so that everything that is done individually and collectively can be visualized, processed, synthesized and shared. VIPP encourages everyone to participate and is based on well-founded theories of adult learning.

Lecturette A lecturette is a structured and orderly presentation of information delivered by an individual (facilitator). A lecturette can be used to impart knowledge or introduce skills. A lecturette which allows for an exchange between the facilitator and the participants is usually more effective.

Discussions Discussions are a verbal exchange led by the facilitator or participants about a specific topic or issue in a unit. Through this process, learners have a chance to share facts and ideas and can listen to and consider different points of view. Discussions are useful in both large and small groups. Small groups may offer shy or less verbal learners more of an opportunity to speak. Discussions in the larger group give the facilitator the ability to control the flow of conversation.

Role-plays Role-plays are short dramas in which learners can experience how someone might feel in a situation, try out new skills, and learn from each other. Role playing in small groups or pairs is usually less threatening for participants and allows more people a chance to do it. Ask for volunteers, as many people are embarrassed or uncomfortable to act in front of a large group. After the role-play, be sure to declare the role-play over and ask questions about it.

Case Studies/Scenarios Case studies are stories, either fictional or true, often describing a problem by discussing what a character's options are or how these dilemmas might be resolved. Feel free to adapt any scenarios in the manual so that the exercise better fits the group. Asking the participants to come up with case studies or scenarios using the information from their programmes, sometimes as an assignment, is a good way to ensure realistic situations and language.

Brainstorming Brainstorming is a free-flowing exchange of ideas on a given issue or topic in the unit. You ask a question, pose a problem or raise an issue and students suggest answers or ideas. Write down all the suggestions for the group to see. No editorial comment or criticism is allowed. When the brainstorming is finished, the group evaluates the ideas together, perhaps to identify those they consider most useful or to categorize them in some helpful way.

Guest Speakers/Resource People Guest speakers or resource people can bring a topic or issue in the unit alive by discussing personal experiences and sharing their feelings. You need to identify such people and invite them in good time to the training course. Make sure they are dynamic, knowledgeable about the unit, and comfortable speaking in front of an audience. Prepare the learners for the speaker's presentation so that they know what to expect, are ready with questions, and act respectfully. Prepare the speaker with information about the group and a clear understanding of your expectations.

Games and Exercises Games and exercises are very much a part of the Training Manual. They include such things as introductions, energizers, and warm-ups. These games and exercises speed up and enhance the amount and the quality of interaction in the group. Energizers and warm-ups can be done just before the start of a session, immediately before or after a tea break or lunch, and/or just before the end of the day's sessions.

Questioning Techniques During the presentation of the training sessions, there will be many opportunities for asking and answering questions. Questions can be used to introduce new ideas, to stimulate discussion and to enable participants to pause and think about what they have been learning. The best questions start with the following words: ***who, what, when, why and how***. Encourage the participants to use these words when they are asking each other questions. If for any reason you do not have the answer to a question that the participants ask, you should say so and note that you will look for the answer and give it at a later stage. You may find participants asking questions that are outside the unit. Keep these in mind by writing them down on the flipchart and answer them at a later time.

GETTING STARTED

On the day before the course begins, here are several things to do at the venue:

- arrange the training course room by making sure there are enough chairs and tables for the participants;
- set up the flipcharts and boards for the cards and newsprint;
- put up the timetable for the next day;
- put up flipcharts for volunteers to sign up for:

  administrative issues;
  daily prayers (if appropriate);
  daily evaluation;
  recording of training course proceedings;
  organizing one fun activity at the end of the day;
  energizing the group before or after an activity.

- prepare a workshop folder for the participants including:

  Day 1 timetable;
  Writing materials;
  Information about the venue.

EVALUATION OF THE TRAINING COURSE

There are several ways the training course should be evaluated.

<u>Moodmeter</u>

At the beginning of the training course, prepare a chart called 'The Moodmeter.' The moodmeter is an instrument for the daily, subjective 'measurement' of the mood and atmosphere of the group. It is not directly related to the content of the training course.

Prepare a chart on a newsprint with the total number of days or sessions of the programme written in a horizontal line. In a vertical column, draw at least three different mood symbols, for example, faces showing happiness, indifference or sadness, frustration or anger. Alternatively, temperature indicators such as 15/25/35 degrees can be used. Participants should place an 'X' or a dot in line with the emotion they are feeling at the end of the day or the session. You can draw a line through the dots or 'X's which reflects the group feeling or the 'ups' and 'downs' of the group. This could be used to discuss the energy level of the group or possible success or dissatisfaction.

Flash

Participants and facilitators should stand in a circle. You should ask a direct question to the group, for example, 'Tell me, how did you feel about the day today' or 'What two new things did you learn today.' Each person gives a personal opinion in a very short statement, going round the circle. It is called 'flash' because of the speed in which opinions are given. It should not take more than 30 seconds for each person. No discussion is allowed as the flash is going on.

Evaluation Committee

At the beginning of each day, two or three participants are chosen or volunteer to evaluate the day's events. They may use any technique to gather information from the other learners. Normally, you and the committee meet immediately following the day's sessions, and they carry out their evaluation and present their findings the next morning, immediately before the new session begins. You should always ask the group for comments and respond to any issues that may require your attention.

Final Evaluation

There are several methods of doing a final evaluation of the training course. One way is to convert the 'expectations' and 'concerns' generated at the beginning of the training course into two separate charts of items to be evaluated by the group. The guiding questions to be asked are: 'Were we able to avoid the following concerns;' 'Were we able to accomplish our expectations.' To answer these questions, the participants give an answer for each factor on a scale of one (poorest) to five (best). The points are then tallied and discussed.

Another form of final evaluation is to ask participants to comment on all of the factors to be evaluated at the end of the training course. This would include all of the following among others:

venue/food/accommodation
training course facilities
facilitation
content
outcomes
duration
daily schedule
use of resource people

These factors should be written on newsprint and participants asked to rate them on a scale of 1 (poorest) to 5 (best) and then the points should be tallied and discussed.

Another form of final evaluation is to develop a pre-structured questionnaire to be completed by participants and have the results analysed and shared before the end of the training course. An example of such a questionnaire is found at the end of the manual. It can be used as is, or adapted to meet country-specific situations. If you choose to use it, then make sure there are sufficient copies available for each day that it will be used.

No matter what comes up in the final evaluation, you should never react as if the critique is directed at you personally. Your role is always to ask the opinions of the participants and permit a variety of ideas to be stated. However, you should remind the group to be constructive in their criticism and to look for ways to improve the course.

After the Training Course

Once the training course has ended, your job as the facilitator is not yet completed. There are still course-related activities that you are responsible for. Here is a list of what needs to be done after the training course.

___ Meet with other facilitators on the team to discuss problems and successes and give general feedback

___ Pay final bills, closing accounts as necessary

___ Send thank you letters to all those who helped with the training course

___ Draft, edit, and reproduce final report and recommendations

PREPARING THE FINAL REPORT FOR THE TRAINING COURSE

The final report is a record of what happened during the training. It is a useful document. It should be used as a reference to plan for future training courses. It is a good idea to divide the parts of the report that need to be written amongst the members of the training team. As the course leader, it is your responsibility to put the entire report together and distribute it to the other team members, your immediate superiors, headquarters staff and donors as well.

Here is what should be included in the final training course report:

Cover
Title page
Acknowledgments
Table of Contents
List of Abbreviations

Background information
Training course objectives
Summary of sessions
Analysis of training course evaluation
(Views of participants and facilitators)
Recommendations
Appendices
Appendix 1: Course timetable
Appendix 2: Opening and closing speeches
Appendix 3: List of participants and their addresses

COURSE ORIENTATION

PURPOSE OF ORIENTATION

The purpose of this unit is to get the workshop off to a good start by having participants introduce themselves and to get to know one another. The unit also explains the objectives of the workshop. In one session, the workshop methodology will be explained and participants will have the chance to express their expectations and concerns. Any administrative matters will also be handled at this time.

OBJECTIVES

By the end of this orientation, participants should be able to:

- name their fellow participants;
- discuss their expectations and concerns;
- explain the objectives and purpose of the workshop;
- explain the workshop methodology;
- discuss the administrative and housekeeping arrangements.

ORIENTATION OVERVIEW

Session 1: Word of Welcome (15 minutes)

Session 2: Introductions (90 minutes)

Session 3: Workshop Expectations and Concerns (30 minutes)

Session 4: Workshop Objectives (30 minutes)

Session 5: Workshop Methodology (45 minutes)

Session 6: Administrative and Housekeeping Matters (45 minutes)

TIME

4 hours 15 minutes

ADVANCE PREPARATION

Prepare and photocopy handouts and make the transparencies. Ensure all materials are available.

Handouts:
- II.1 Facilitation Techniques

Transparencies:
- II.1 Overview of the Workshop Programme
- II.2 M&E Training Workshop Objectives

Materials: writing pads, pens, VIPP cards, flipchart, masking tape, markers, pins, brown paper, glue, overhead projector, overhead transparencies, transparency pens

PROCEDURE

Session 1 Word of Welcome . . . . . 15 minutes

Step 1: Begin this session by officially welcoming participants to the workshop. If there is an outside guest, invite him/her to speak.

Step 2: Give a brief overview of the workshop and the programme. Use **Transparency II.1** to give an overview of the workshop programme.

Session 2 Introductions . . . . . 90 minutes

Step 1: Explain to participants that since they will be together for the next two weeks, it is important to get to know each other, their interests, likes and dislikes.

Step 2: Divide the group into pairs of people who do not know each other well. Ask the groups to find a place in the room where they can interview each other. The interview should take about 5-10 minutes. Each person should find out the following about their partner:

name;
from where;
work he/she does;
what name he/she would like to be known by in the workshop;
likes/dislikes;
experience in monitoring and evaluation;
an adjective that describes the person.

Step 3: When participants have finished interviewing each other, ask for a volunteer to introduce his/her partner. Do this until everyone has been introduced. As each person is being presented to the group, write their dislikes on the flipchart and use them at the end of this session to help build group norms. The facilitator has the opportunity when the introductions are going on to ask for more information and to encourage participants to find out more about each other. Each presentation should not last longer than 3 minutes per person.

Step 4: At the end of the introductions, remind participants to find out more about each other during nutrition breaks, over meals and during their free time.

Session 3 Workshop Expectations and Concerns . . . . . 30 minutes

Step 1: Explain to participants that one of the facilitation techniques that will be used during the workshop is known as VIPP. VIPP stands for Visualization in Participatory Programmes. Point out that VIPP makes use of coloured cards of different sizes and shapes. Go over the following rules for writing on the cards:

Think before you write;
One idea per card;
Key words only;
Write legibly—should be seen from 8m away;
No more than three lines per card;
Use upper- and lowercase letters;
Write across the card, not vertically;
Follow the colour, shape and size code.

Step 2: Hang up three cards: Professional Expectations, Personal Expectations, and Concerns. Give participants three sets of cards and ask them to write their professional and personal expectations and concerns about the workshop on the different coloured cards and then to hang them under the correct heading. Ask participants to write one idea per card, but to write as many cards as they need.

Step 3: Ask for one or two volunteers to read the cards under professional expectations. When all the cards under that heading have been read, ask for a volunteer to synthesize what the cards are saying and pull out any cards that repeat what has already been said. Do the same for personal expectations. Encourage the participants to discuss and question each other's expectations.

Step 4: Ask for a volunteer to read the cards under concerns. Synthesize their ideas. Encourage participants to explain why they have such concerns and what they think should be done to allay these concerns.

Session 4 Workshop Objectives . . . . . 30 minutes

Step 1: Explain to participants that as the organizers of the workshop, you tried to anticipate what professional expectations participants might have and, on that basis, you developed the workshop objectives.

Step 2: Display **Transparency II.2** with the workshop objectives on it. As you present the objectives of the workshop, compare them with their

expectations and point out the links between the two. Also point out that the workshop may not be able to meet all of their expectations.

Step 3: Ask participants if there are any objectives that are not clear and if there are any objectives they would like to add or delete, based on their expectations, and discuss the reasons why. Mention that the objectives will guide the deliberations of the workshop and that participants should monitor how well they are being achieved during the workshop.

Session 5 Workshop Methodology . . . . . 45 minutes

Step 1: Explain to participants that many facilitation techniques will be adapted and used throughout the workshop. Distribute **Handout II.1** on Facilitation Techniques and allow participants to read through it. After reading through, ask participants if they have any questions on any of the techniques.

Step 2: Explain to the participants that in view of the amount of work arising from the workshop objectives and their expectations, it is important to agree on how to spend their time during the course. To do this, ask participants to negotiate the following times:

starting time in the morning
break time in the morning (how long?)
lunch time (how long?)
break time in the afternoon (how long?)
end of the day

Also ask participants about times for working in the evenings and on the weekend. Inform participants that there may be at least one weekend exercise which needs to be catered for. Once this has been agreed upon, point out that the time must be respected and can only be changed after renegotiation. Ask participants to discuss workshop norms. Distribute the yellow card and explain how to use it.

Step 3: As part of setting the tone or climate of the workshop, mention to the participants that this is a participatory workshop. This means the participants must play an active role in the planning, organization, management and evaluation of the workshop. Mention to the participants that the success of the workshop depends on how well they participate in this process.

To enable participants to participate actively there are two committees that must be established, namely the Steering Committee and the Social

Committee. Point out that these two committees are concerned with everyone's welfare. Explain that the Steering Committee has the following functions:

to ensure that all is going according to plan;
to receive feedback from participants;
to evaluate the day;
to act on grievances;
to plan for the following day by making the timetable.

Step 4: Ask participants what the terms of reference for each committee should be. Ask for volunteers for these two committees.

Step 5: Explain the use of the moodmeter to participants.

Session 6 Administrative and Housekeeping Matters . . . . . 45 minutes

Step 1: There are other details that you should explain to the participants during this session on the first day of the workshop. These include:

financial matters
personal expenses
accommodation and board
workshop resources (library)

Step 2: Point out that this is their workshop and that they should work together towards achieving the objectives of the workshop. Also remind them that being in a participatory workshop, the more they take part, the more they will learn and benefit.

Step 3: End this orientation by encouraging participants to ask any questions or to raise points for clarification.

FACILITATION TECHNIQUES

VIPP VIPP stands for Visualization in Participatory Programmes. VIPP involves the use of different shapes of coloured cards so that everything that is done individually and collectively can be visualized, processed, synthesized and shared. VIPP encourages everyone to participate and it is based on well-founded theories of adult learning.

Lecturette A lecturette is a structured and orderly presentation of information delivered by an individual (facilitator). A lecturette can be used to impart knowledge or introduce skills. A lecturette which allows for an exchange between the facilitator and the trainees is usually more effective.

Discussions Discussions are a verbal exchange led by the facilitator or participants about a specific issue or topic in the unit. Through this process learners have a chance to share facts and ideas and can listen to and consider different points of view. Discussions are useful in both large and small groups. Small groups may offer shy or less verbal learners more of an opportunity to speak. Discussions in the larger group give the facilitator the ability to control the flow of conversation.

Role-plays Role-plays are short dramas in which learners can experience how someone might feel in a situation, try out new skills, and learn from each other. Role playing in small groups or pairs is usually less threatening for trainees and allows more people a chance to do it. Ask for volunteers, as many people are embarrassed or uncomfortable to act in front of a large group. After the role-play, be sure to declare the role-play over and ask questions about it.

Case Studies/Scenarios Case studies are stories, either fictional or true, often describing a problem by discussing what a character's options are or how these dilemmas might be resolved. Feel free to adapt any scenarios in the manual so that the exercise better fits the group. Asking the participants to come up with case studies or scenarios, sometimes as an assignment, is a good way to ensure realistic situations and language.

Brainstorming Brainstorming is a free-flowing exchange of ideas on a given issue or topic in the unit. You ask a question, pose a problem or raise an issue and students suggest answers or ideas. Write down all the suggestions for the group to see. No editorial comment or criticism is allowed. When the brainstorming is finished, the group evaluates the ideas together, perhaps to identify those they consider most useful or to categorize them in some helpful way.

Guest Speakers/Resource People Guest speakers or resource people can bring a topic or issue in the unit alive by discussing personal experiences and sharing their feelings. You need to identify such people and invite them to the workshop in good time. Make sure they are dynamic, knowledgeable about the unit and comfortable speaking in front of an

audience. Prepare the learners for the speaker's presentation so that they know what to expect, are ready with questions and act respectfully. Prepare the speaker with information about the group and a clear understanding of your expectations.

Games and Exercises Games and exercises are very much a part of the Training Manual. They include such things as introductions, energizers, and warm-ups. These games and exercises speed up and enhance the amount and the quality of interaction in the group. Energizers and warm-ups can be done just before the start of a session, immediately before or after a tea break or lunch and or just before the end of the day's sessions.

Questioning Techniques During the presentation of the training sessions, there will be many opportunities for asking and answering questions. Questions can be used to introduce new ideas, to stimulate discussion and to enable participants to pause and think about what they have been learning. The best questions start with the following words: ***who, what, when, why and how.*** Encourage the participants to use these words when they are asking each other questions. If for any reason you do not have the answer to a question that the participants ask, you should say so and note that you will look for the answer and give it at a later stage. You may find participants asking questions that are outside the unit. Keep these in mind by writing them down on the flipchart and answer them at a later time.

OVERVIEW OF THE WORKSHOP PROGRAMME

- **Targeted to managers of nutrition and nutrition-related programmes**
- **Designed to increase knowledge and skills in monitoring and evaluation**
- **Workshop outcome will be to develop programme-specific monitoring system and evaluation plan**

M & E WORKSHOP OBJECTIVES

By the end of this workshop, participants should be able to:

- **give an overview of monitoring and evaluation;**
- **design a monitoring system;**
- **develop an evaluation plan;**
- **construct monitoring and evaluation data collection instruments;**
- **conduct monitoring and evaluation activities;**
- **analyse data collected during monitoring and evaluation activities;**
- **use the findings from monitoring and evaluation to improve their specific programmes.**

UNIT 1 OVERVIEW OF MONITORING AND EVALUATION

PURPOSE OF THE UNIT

This unit introduces participants to an overview of the programme management cycle. The unit points out the advantages of designing monitoring and evaluation systems at the programme planning stage. It also presents the concepts of monitoring and evaluation and their importance in nutrition programmes. Lastly, the unit explains the steps in conducting monitoring and evaluation activities.

OBJECTIVES

By the end of this unit participants should be able to:

- explain the programme management cycle;
- describe the process of monitoring and evaluation;
- differentiate between monitoring and evaluation;
- explain the importance of monitoring and evaluation in nutrition programmes;
- explain the steps in conducting monitoring and evaluation activities.

UNIT OVERVIEW

Session 1: Overview of Programme Management Cycle (60 minutes)

Session 2: Description of Monitoring and Evaluation (60 minutes)

Session 3: Types of Evaluation (120 minutes)

Session 4: Steps in Conducting Monitoring and Evaluation Activities (120 minutes)

TIME

6 hours

ADVANCE PREPARATION

Prepare and photocopy handouts and make the transparencies. Write up two identical sets of VIPP cards with the steps of the monitoring process. Ensure all materials are available.

Handouts:	1.1	Monitoring and Evaluation
	1.2	Steps in Conducting Monitoring Activities
	1.3	Guidelines in Conducting Evaluation Activities
Transparencies:	1.1	Programme Management Cycle
	1.2	Monitoring and Evaluation
	1.3	Steps in Conducting Monitoring Activities
	1.4	Guidelines in Conducting Evaluation Activities
Materials:	flipchart, marker pens, masking tape, flash cards, pins	

PROCEDURE

Session 1 Overview of Programme Management Cycle . . . . . 60 minutes

Step 1: Start the session by presenting the objectives of the unit. Then go on to explain that monitoring and evaluation are an integral part of programme management.

Step 2: Hang a card on the board with the heading Programme Management Cycle. Divide participants into four groups.

One way of presenting this exercise is to give each group a number of different coloured cards and ask them to write the components of the programme management cycle and to arrange the cards so as to capture the relationship between the components of the programme management cycle.

Another way of presenting this would be to give the participants cards and ask them to write the components of the programme management cycle. Allow 10 minutes for the exercise. Then cluster and synthesize the components and then relate these to the ones on **Transparency 1.1.** Indicate where monitoring and evaluation fits in the programme management cycle. Mention that without a monitoring and evaluation component, a nutrition programme is incomplete.

Tell participants that as managers of nutrition programmes there are various aspects of a programme that they are responsible for if their programmes are to be effective.

Step 3: Point out that the programme cycle indicates that there are several key issues that must be looked at during programme implementation. These include:

- how to keep track of the programme implementation process;
- how to account for resource use against activities;
- how to keep the programme on track in terms of time and objectives;
- how to ensure that expected results will be achieved;
- determining the extent of results achievement through the attainment of desired outputs;
- determining the impact of the results on the lives of the target group/s.

Step 4: Point out that for monitoring and evaluation components to be most effective, they should be built in during the programme planning stage. Planning for monitoring and evaluation in the early stages of the programme may indicate the need for a baseline survey or needs assessment before the programme begins. Building monitoring and evaluation components in during the

planning stages may also help to identify the need for control groups which are often important for a credible evaluation.

Step 5: In conclusion, point out that a large number of nutrition programmes are being undertaken throughout the world but only a few of these programmes are effective in meeting stated objectives of controlling malnutrition. A number of programmes have failed to overcome fundamental, technical, administrative and financial constraints. Apart from specific local situations that contribute to the failure of many programmes, inappropriate design, absence of targeting, weak training and supervision, unskilled management and inadequate financing are common constraints.

Step 6: Give participants the following assignment to work on, preferably during the evening. Explain that (the next day) they are going to organize an information market place where they will have to sell or market the concepts on monitoring and/or evaluation to each other. Divide the group into two and give the following task. Each group should prepare to answer the following questions:

What is monitoring/evaluation?
Why is monitoring/evaluation important?
What questions does monitoring/evaluation answer for programme managers and stakeholders?

They should use the materials in the resource centre to gather information on the topic.

Session 2 Description of Monitoring and Evaluation . . . . . 60 minutes

Step 1: Start this session by asking the two groups to set up market stalls where they will share information and give answers to questions regarding their topic. Each group will have 15 minutes to sell their ideas.

Step 2: Have participants write up their findings on the answers to the questions on a flip chart. Allow participants 10 minutes for this. Share these in plenary. The monitoring group should present what they learned about evaluation and the evaluation group should present what they learned about monitoring. (Show **Transparency 1.2** with the definition of monitoring and evaluation if needed).

Step 3: Use the following information to clarify with participants that monitoring and evaluation are two distinct but related processes with complementary activities. On the one hand, monitoring is the systematic attempt to examine programme operations, including coverage and the delivery of services by assessing what was supposed to have been done and determining if it was actually done as planned, within the planned time frame, for the targeted population, and in an effective way. Monitoring can also include the collection of information about programme activities to see if they comply with legal and regulatory requirements.

Step 4: Emphasize to participants that monitoring is the process of continuous and periodic surveillance of the physical implementation of a programme through timely gathering of systematic information on work schedules, inputs delivery, targeted outputs, and other variables required for the programme to have the desired effects and impact. Monitoring is an integral part of the management information system (a management support function) and monitoring reports can be used as a basis for internal review (evaluation) of programme operations at the management and technical levels.

Point out to participants that the purpose of programme monitoring is:

- to oversee the physical implementation of the programme by providing information on the current status, thus ascertaining that implementation is proceeding as planned;
- to provide the basis for corrective measures to be undertaken through early indication of deviations, performance gaps and other problems requiring immediate attention;
- to verify proper utilisation of programme resources;
- to verify that inputs are made available on time and are transformed, through activities, into outputs.

Step 5: Now explain to participants that evaluation is the systematic collection of information on the conceptualization, design, implementation and/or impact of an intervention or programme. Point out that evaluations serve two important functions by determining *(a) the extent to which desired changes have occurred in the light of programme objectives,* and *(b) whether the project is responsible for such changes.*

Step 6: Further explain to participants that evaluation, on the other hand, is the process by which the relevance, effectiveness and impact of a programme are determined as objectively and systematically as possible in relation to the expected results and outputs. Evaluation is, therefore, a programme tool and a verification process for measuring achievement of programme results and assessing a programme's relevance, efficiency and effectiveness in relation to its objectives within a given budget or available resources.

Point out that evaluations examine the effectiveness of institutional arrangements and management systems for programme delivery and also provide information for programme design and approval. An evaluation is an accountability tool that enables programme management to show the stakeholders as objectively as possible the achievements of the programme.

Step 7: Explain why monitoring and evaluation are important activities in a nutrition programme. The following points should come out.

Monitoring nutrition programmes should help to:

- assess the quantity, quality and timeliness of programme inputs;
- verify that inputs are transformed, through activities, into outputs that generate results;
- provide information to improve targeting;
- identify operational constraints to programme effectiveness thus helping managers to improve implementation;
- determine if a process or service, such as food fortification, is meeting national or some other accepted/set standards;
- determine whether a programme is servicing the target groups.

Explain that monitoring data should be collected from the inception of the programme, and that it should be utilized on an on-going basis for programme improvement. If there is no monitoring system in place at the inception of the programme, it is not too late to start at any time in the life of

the programme. Evaluation is important because it can help to:

- determine the worth or value of on-going programmes;
- increase the effectiveness of programme management and administration;
- identify impacts that are attributable to a programme;
- provide information that will permit cost-effectiveness comparisons;
- redesign an on-going programme or shape a new programme;
- satisfy the accountability requirements of donors and programme sponsors.

Step 8: Monitoring seeks to answer a range of questions including:

Are the programme inputs and activities transformed into outputs that generate desired results?

How timely is service delivery?

To what degree are targeted individuals and communities being reached?

What is the acceptability and actual use of services?

What are the costs involved in implementing the programme and achieving the outputs?

To what extent does the actual implementation reflect programme implementation plans?

Point out that monitoring information is used primarily for management decisions.

Evaluation seeks to answer a range of questions including:

Is the programme addressing a real or the right problem?

Is the intervention correct or appropriate?

Are additional interventions necessary to achieve the objectives?

Is the intervention being implemented as planned?

Is it an effective way of addressing the problem, for example, in terms of costs and inputs?

Step 9: Ask participants to give reasons why they think there may be resistance to doing monitoring and/or evaluation. Make sure the following points come out:

- lack of time and knowledge/skills, and fear of change;
- poor project design, additional work load, and restrictive budgets;
- stakeholders may question the value of monitoring and/or evaluation because they believe so strongly that the programme's activities must be providing high returns with low risk of negative outcomes;
- stakeholders may be concerned that monitoring/evaluation results might be negative;
- monitoring/evaluation is sometimes seen as “police work” or a fault-finding exercise;
- stakeholders may argue that monitoring/evaluation resources, not just money, but staff time, would be better spent to expand the programme.

Now point out that it may be difficult to overcome such resistance, but it may be lessened if stakeholders of a programme are involved in planning for an evaluation and reviewing data as they are being compiled. Such a participatory approach to evaluation reduces resistance. Stakeholders must be made to understand that evaluation is a reasoning process for all, is essential for quality programming, and is not a fault-finding mission.

Session 3 Types of Evaluation . . . . . 120 minutes

Step 1: Explain to participants that there are different types of evaluations. These include:

Mid-term or On-going
Summative (final) or Terminal
Impact (outcome)
Process

Step 2: Divide the participants into four groups based on the four types of evaluation identified in Step 1. Ask participants to answer the questions below. Allow 15 minutes for this exercise and have each group present their findings in plenary. Each group should take about 10 minutes to present.

What is mid-term/summative/impact/process evaluation?
Why should it be done?
When should it be done?
Who should do it?
The questions that evaluators might ask in different types of evaluations (e.g., mid-term/summative/impact/process evaluation).
How should the findings be used?

Step 3: Make sure the following points come out:

- Mid-term evaluation allows programme staff to reflect on the progress being made and enables implementors to take corrective action;
- Mid-term evaluation is concerned with providing information to programme staff to ensure that the programme runs smoothly;
- Mid-term evaluation helps managers to understand how well the programme is moving towards achieving its objectives so that changes may be made in the programme's components;
- Mid-term evaluation is conducted half way through the programme. However, an interim (on-going) evaluation may be conducted at any time during the life of the programme. In programmes which are implemented in phases or are funded to run for over five years, it may be necessary to evaluate the programme at specified times other than the mid-point.

Step 4: Here are examples of questions that a mid-term evaluation would include:

Are the programme activities contributing to the attainment of the

objectives within the specified time? If yes, how? If no, why not?

What adjustments will bring the programme back on track so that objectives are attained?

Is the programme effectively managed? What additional support is needed to ensure that the programme is effectively and efficiently implemented and managed?

How feasible is it to make these adjustments?

What are the programme's most important features and how can they be improved? (staffing, materials, activities, administrative arrangements)

The findings can be used to modify the programme.

Step 5: Make sure the following points about summative evaluation come out:

- The purpose of summative evaluation is to collect and present information needed for summary statements and judgements about the programme and its value.

- Summative evaluation allows managers to learn about which aspects were successful or unsuccessful, the reasons for the outcomes, and how to incorporate the lessons into future programmes.

- A summative evaluation combines impact data with other data to give a more complete picture of operations and accomplishments of a programme.

- Summative evaluations answer questions about the degree to which the programme was well-implemented and about the perception of programme beneficiaries, service providers and other stakeholders.

- Summative evaluation findings can be used to plan new programmes or interventions or to make adjustments to programmes that will be re-funded or extended. They can also be used to replicate the project's activities and as a basis for lessons learned.

Here are examples of questions that evaluators might ask in a summative evaluation:

What are the programme goals and objectives?

Did the programme achieve its objectives?
Which components are worth replicating and why?
What conclusions can be made about the effects of the programme or its various components and their impact?
Was the programme cost-effective?
What recommendations can be made?

Step 6: Make sure the following points about process evaluation come out:

- Process evaluation addresses operational or implementation issues. The focus is on defining factors (or intermediate steps) in program implementation that may explain findings of a summative and/or impact evaluation.

- Sources of data for process evaluation include client records, quarterly and annual reports if they exist, follow-up surveys and supervision reports, service statistics, and experiences or observations of management and other stakeholders.

- Results of a process evaluation are reported in terms of output measures, such as the changes in the number of acceptors or users of a service like growth monitoring, or the population coverage.

- The results can also be reported as inputs or the input flow, and could be related with outputs (efficiency), to determine how inputs were transformed into outputs intended to contribute to the program outcome.

- Qualitative techniques like rapid assessments can be used to collect descriptive information on programme implementation, perceptions and "historical" factors (like social, environmental, economic and political) in programme performance.

Here are examples of questions that evaluators might ask in a process evaluation:

How does the quantity and quality of inputs explain the adequacy of programme outputs compared to what was planned?

How did the programme stakeholders contribute to the programme outcomes when the programme was being implemented?

Step 7: Make sure the following points about impact evaluation come out:

- Impact evaluation determines what effect the program had on the

target population and whether the effects are justifiably attributed to the interventions or to extraneous factors.

- Impact evaluation will normally measure either positive or negative benefits on the community.

- Normally a design that accounts for threats to validity, like spillover, substitution effects, and selection bias should be chosen to measure impact. The length of time that the programme has been operating should also be taken into account when designing an impact evaluation.

Here are examples of questions that evaluators might ask in an impact evaluation:

What is the change in the indicator(s) that have been selected to measure a benefit to the community?

What change would have occurred in the absence of the programme and what change is actually a result of the programme?

Step 8: To conclude this session, remind participants that planning for mid-term and summative evaluation starts at the beginning of the programme, usually with the collection of baseline or pre-programme data and information.

Also remind participants that monitoring follows a management model with a focus on improving day-to-day operations of a programme. On the other hand, evaluation uses a research model to assess the extent to which programme objectives have been met or surpassed and if there has been any impact on those involved. However, monitoring and evaluation are most effective as interrelated activities. Distribute **Handout 1.1** which summarizes these two sessions.

Session 4 Steps in Conducting Monitoring and Evaluation Activities . . . . . 120 minutes

Step 1: Prepare two identical sets of cards that have the steps in the monitoring process (as described in **Handout 1.2**). Form two teams, give each team a set of cards, and ask them to arrange the steps in sequential order. The two teams should face each other, standing in opposite lines. One team should present the order of the cards and then the other team should do so. Ask the teams to negotiate with and convince each other to change the order of their cards if they wish. Allow 15 minutes for this activity. Then tell the teams to show their cards again.

Step 2: Using **Handout 1.2** determine which team had the steps in conducting monitoring activities in the correct order. Point out that the process of conducting monitoring activities may not be exactly like this since some activities may be done simultaneously and others may be over a long period of time. Use **Transparency 1.3** if needed.

Step 3: Refer participants to **Handout 1.2** which summarizes the steps in conducting monitoring activities. Explain to participants that monitoring should be carried out in the context of a programme implementation plan. This plan indicates the activities to be carried out, when they should be done, who should do them, and the resources to undertake them.

Step 4: Refer to **Handout 1.3** and divide participants into five groups and assign each group one phase in conducting evaluation activities. Ask each group to determine the steps that need to be completed for that particular phase. The groups should write their responses either on cards or on a flipchart. Share their findings in plenary.

Step 5: Distribute **Handout 1.3** on the Guidelines in Conducting Evaluation Activities. Walk through it with the participants. Inform participants that the actual components of any evaluation will depend on the type of evaluation being undertaken. Answer any questions they may have. Use **Transparency 1.4** if needed.

Step 6: Conclude the discussion on this unit by reminding participants that the workshop programme will provide more information about these steps of monitoring and evaluation.

MONITORING AND EVALUATION

What is monitoring?

The regular follow-up of the implementation of planned activities. It also involves documentation of project activities

The systematic and continuous process of following and keeping track of indicators in order to ensure that the project/programme is proceeding according to plan and modifying the plan as necessary

The process of monitoring project inputs

What questions does monitoring answer?

Are projected outputs being met?
Are we heading in the right direction?
Are we in good time?
Are the indicators appropriate?
Did you identify the correct problem and has this problem changed?
Are the intervention strategies appropriate to the target population?
What can be improved in our project?
Are we utilizing resources efficiently?
Gives us the strengths and weaknesses of our project
Provides updates for stakeholders

Why is monitoring important?

Assesses progress against set objectives/outputs
Supervises implementation
Assesses effectiveness of implementation strategies
Identifies and documents critical milestones
Identifies new issues and/or unforeseen circumstances that may be obstacles
Identifies necessary corrective measures (strategy modification)
Identifies positive aspects of the programme for re-enforcement
Verifies information first-hand for immediate feedback
Strengthens relationships between collaborators (donors, implementors and beneficiaries)
Serves as a motivation to implementors and beneficiaries
Provides an opportunity to verify whether resources are being used effectively (cost-effectiveness)
Identifies differences between knowledge and practice and aids in planning training accordingly

What is evaluation?

The systematic assessment of effectiveness and efficiency of the project achievements based on the set objectives

What questions does evaluation answer?

Have the outcomes/objectives been met?
What systems were actually in place?
How effective were strategies used to implement project activities?
Were the needs met?
Have the needs changed?
What is the level of participation of various stakeholders?
What lessons have been learned from the project?

What is the importance of evaluation?

It is a means of problem verification
It maximizes utilization of resources
It identifies the strengths/weaknesses of the project
It provides information for planning and re-planning
It provides learning opportunities
It provides satisfaction to the various stakeholders
It provides an opportunity for problem solving (strategy modification)
It is a basis for maintaining and/or improving the existing strategy
It measures the effectiveness of the project/programme
It is a check whether the project was implemented according to the detailed plan/design

Why is there resistance to monitoring and evaluation?

Lack of appreciation of the role of monitoring and evaluation
Fear of finding mistakes
Fear of failure
Lack of transparency and accountability by project managers
Lack of knowledge and skills in monitoring and evaluation
Cost of re-designing the overall project
Resistance to change by entire project staff
People are overwhelmed by more work
Lack of time
Restrictive budgets (lack of funds to accommodate monitoring and evaluation)
Poor project design
Frequent transfers of implementors
Fear of piracy by external evaluators
Stakeholders not asked about evaluation

Types of Evaluation

Process Evaluation

What is it?

Assessment of the efficiency and effectiveness of individual pre-determined stages of project implementation, beginning with the problem identification

It helps to identify external factors that impact the project outputs

Why is it conducted?

To determine the cost-effectiveness of strategies in each component of the project cycle

When is it conducted?

At every stage of the project cycle

Who conducts it?

Project staff and other stakeholders (beneficiaries, donors)

What questions does process evaluation answer?

How was the problem identified?
How were beneficiaries involved in project design?
What external factors impacted the project?
What were the input costs compared to the output (cost-effective)?
To what extent are short-term objectives being met?

How should the findings be used?

To help in redesigning and making amendments in project implementation
To identify positive factors that need to be re-enforced
To help in re-allocation/re-classification of budget funds

Mid-term evaluation

What is it?

It is an assessment of the effectiveness and efficiency of a project when it is half way through the planned period.

Why do we do it?

Assess the effect so far of the programme
Gives an idea of whether the set objectives will be met within the project period
Justify the existence of the project to all stakeholders and implementors

When is it conducted?

It is done halfway through the planned project period

Who does it?

Done by project implementors, donors, project managers, the beneficiaries, and external evaluation team

Questions answered by a mid-term evaluation

Are the project components being delivered to the right and intended target group?
Are there other people who should have been included in the target group?
Is the coverage of the programme adequate?
Are the supplies being delivered on time and being properly utilized?
Are there any deviations in project implementation and, if so, have such deviations restricted the possibility of reaching the outcomes/objectives?
Are there any constraints identified and what are their corrective measures?

How should the findings be used?

All stakeholders should be involved in using the findings in modification of the programme, if the need arises.

Impact Evaluation

What is it?

It gauges the extent to which the intervention has caused change in the desired direction at a given time

Why is it done?

Want to know the extent to which the intervention has achieved its set objectives. It also assists in exposing the positive and negative outcomes from the intervention.

It highlights whether it's important to document the intervention as a recommendation to stakeholders

When is it done?

At a set time depending on the programme type

Who does it?

Implementors
External evaluators

What questions does an impact evaluation answer?

Is change due to the intervention?
Are there other external factors influencing the change?

How should the findings be used?

Help a similar programme
Documentation and recommendation
Help to re-plan

Summative Evaluation

What is it?

The final assessment done at the end of a project plan
Results obtained help in making decisions about continuation/termination of a programme

Why is it done?

To determine the extent of achievement of the project
Determine the ability to move from one level to the next

When is it done?

At the end of a programme/project plan

Who does it?

Project implementors
External evaluators and project implementors

What questions does it answer?

Have the objectives been met?
How effective were the systems in place?
What strategies did it use in implementing project activities?
Have the needs changed?
It allays fears of researchers/implementors and other stakeholders

How should the findings be used?

To justify extension of the programme
Used as a learning opportunity

For replication of the same in other areas
Solicit for more/further funding
To show stakeholders that the project went as planned/for satisfaction of the stakeholders

STEPS IN CONDUCTING MONITORING ACTIVITIES

- Review existing information related to the project.
- Make a conceptual framework of the project for monitoring.
- Identify monitoring goals and objectives.
- Identify indicators.
- Determine which categories of workers, supervisors or others will be responsible for the collection of each category of monitoring data.
- Develop a timetable for frequency of monitoring.
- Develop/strengthen a management information system.
- Develop monitoring instruments.
- Conduct monitoring activities.
- Analyse monitoring data.
- Write a report.
- Make recommendations.
- Implement recommendations.
- Identify new indicators based on the recommendations.
- Modify the monitoring system if necessary.
- Continue to monitor.

GUIDELINES IN CONDUCTING EVALUATION ACTIVITIES

Phase A: Planning the Evaluation

- Determine the purpose of the evaluation.
- Decide on type of evaluation.
- Review existing information in programme documents including monitoring information.
- Describe the programme.
- Develop/refine conceptual framework.
- Assess your own strengths and limitations.
- Put together an evaluation team including stakeholders.

Phase B: Selecting Appropriate Evaluation Methods

- Identify evaluation goals and objectives.
- Formulate evaluation questions and sub-questions.
- Decide on the appropriate evaluation design.
- Develop an evaluation schedule.
- Develop a budget for the evaluation.

Phase C: Collecting and Analysing Information

- Develop data collection instruments.
- Pre-test data collection instruments.
- Undertake data collection activities.
- Analyse data.
- Interpret the data.

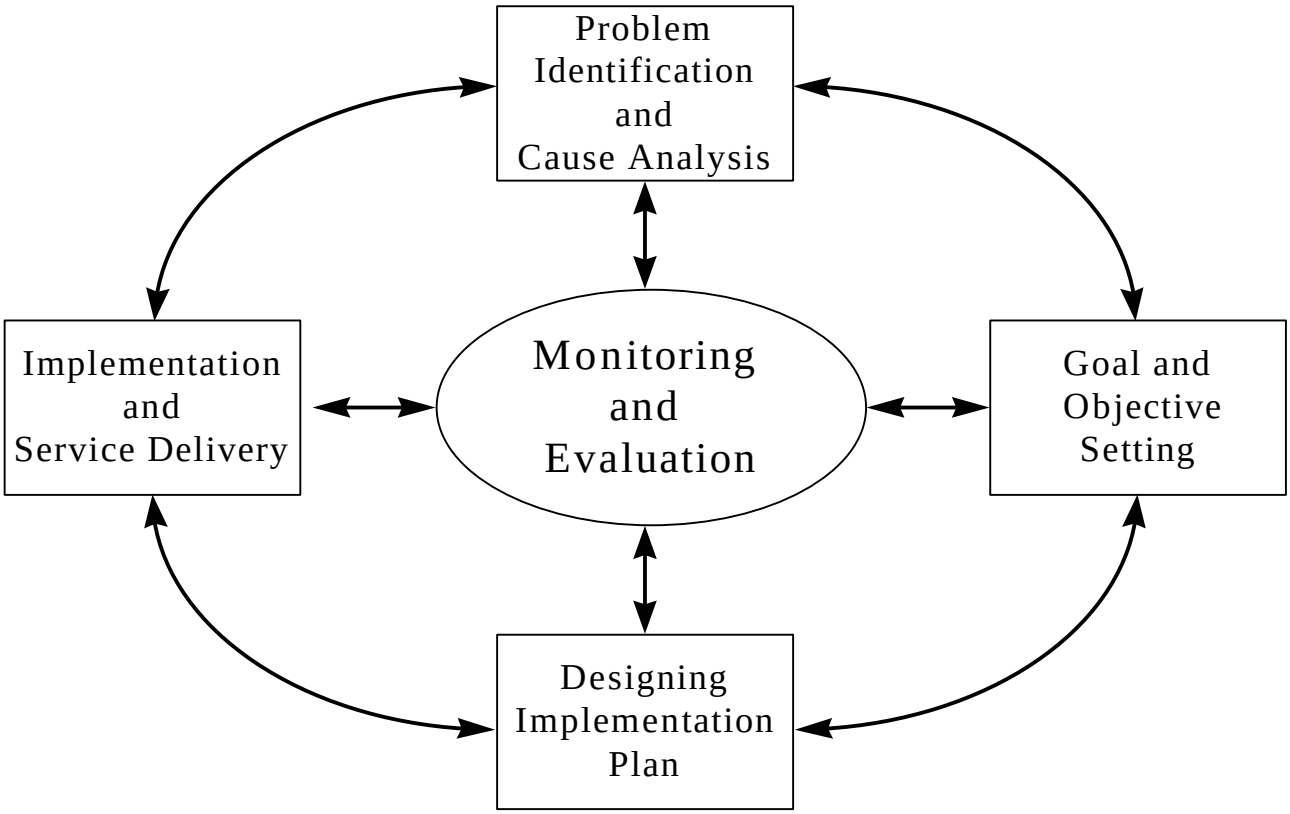
Phase D: Reporting Findings

- Write the evaluation report.
- Decide on the method of sharing the evaluation results.
- Decide on communication strategies.
- Share the draft report with stakeholders and revise as needed.
- Disseminate evaluation report.
- Meet with project stakeholders to discuss and follow-up on findings once they have accepted the findings.

Phase E: Implementing Evaluation Recommendations

- Develop a new/revised implementation plan in partnership with stakeholders.
- Monitor the implementation of evaluation recommendations and report regularly on the implementation progress.
- Plan the next evaluation.

Programme Management Cycle



MONITORING

Monitoring is the periodic collection and review of information on programme implementation, coverage and use for comparison with implementation plans.

EVALUATION

Evaluation is a process to determine (as systematically and objectively as possible) the extent to which programme needs and results have been or are being achieved and analyse the reasons for any discrepancy.

Evaluation attempts to measure programme relevance, efficiency and effectiveness. It measures whether and to what extent the programme's inputs and services are improving the quality of people's lives.

STEPS IN CONDUCTING MONITORING ACTIVITIES

- **Review existing information related to the project.**
- **Make a conceptual framework for monitoring the project.**
- **Identify monitoring goals and objectives.**
- **Identify indicators.**
- **Determine which categories of workers, supervisors or others will be responsible for the collection of each category of monitoring data.**
- **Develop a timetable for frequency of monitoring.**
- **Develop/strengthen a management information system.**
- **Develop monitoring instruments.**
- **Conduct monitoring activities.**
- **Analyse monitoring data.**
- **Write a report.**
- **Make recommendations.**
- **Implement recommendations.**
- **Identify new indicators based on the recommendations.**
- **Modify the monitoring system if necessary.**
- **Continue to monitor.**

GUIDELINES IN CONDUCTING EVALUATION ACTIVITIES

Phase A: Planning the Evaluation

- Determine the purpose of the evaluation.
- Decide on type of evaluation.
- Review existing information in programme documents including monitoring information.
- Describe the programme.
- Develop/refine conceptual framework.
- Assess your own strengths and limitations.
- Put together an evaluation team including stakeholders.

Phase B: Selecting Appropriate Evaluation Methods

- Identify evaluation goals and objectives.
- Formulate evaluation questions and sub-questions.
- Decide on the appropriate evaluation design.
- Develop an evaluation schedule.
- Develop a budget for the evaluation.

Phase C: Collecting and Analysing Information

- Develop data collection instruments.
- Pre-test data collection instruments.
- Undertake data collection activities.
- Analyse data.
- Interpret the data.

Phase D: Reporting Findings

- Write the evaluation report.
- Decide on the method of sharing the evaluation results.
- Decide on communication strategies.
- Share the draft report with stakeholders and revise as needed.
- Disseminate evaluation report.
- Meet with project stakeholders to discuss and follow-up on findings once they have accepted the findings.

Phase E: Implementing Evaluation Recommendations

- Develop a new/revised implementation plan in partnership with stakeholders.
- Monitor the implementation of evaluation recommendations and report regularly on the implementation progress.
- Plan the next evaluation.

UNIT 2 CONCEPTUALIZING A MONITORING AND EVALUATION SYSTEM

PURPOSE OF THE UNIT

This unit helps participants to think about some tasks that are involved in conceptualizing a monitoring and evaluation system. It also assists participants in thinking about the criteria for selecting an evaluation team and the need for internal and external evaluation. The unit distinguishes between programme goals and objectives and monitoring and evaluation objectives. The unit also explains what a conceptual framework is and how to develop one.

OBJECTIVES

By the end of this unit, participants should be able to:

- explain the criteria to use for selecting an evaluation team;
- determine the need for internal and external monitoring and evaluation;
- develop/revise a programme conceptual framework for monitoring and evaluation;
- distinguish between programme goals and objectives and monitoring and evaluation objectives.

UNIT OVERVIEW

Session 1: Criteria for Selecting the Core Monitoring and Evaluation Team (60 minutes)

Session 2: Internal and External Monitoring and Evaluation (30 minutes)

Session 3: Developing a Programme Conceptual Framework (120 minutes)

Session 4: Programme Goals and Objectives vis a vis Monitoring and Evaluation Objectives (60 minutes)

TIME

4 hours 30 minutes

ADVANCE PREPARATION Photocopy all handouts and prepare transparencies.

Handouts:

- 2.1 Topics for Training Monitoring and EvaluationTeams
- 2.2 Sample of a Conceptual Framework
- 2.3 Sample of a Logical Framework
- 2.4 Blank Logical Framework
- 2.5a-d Programme Descriptions for a Conceptual/Logical Framework Exercise

Transparencies:

- 2.1 Skills and Experiences Needed by the Monitoring and Evaluation Team
- 2.2 Goals
- 2.3 Objectives
- 2.4 Monitoring and Evaluation Objectives
- 2.5 Sample Conceptual Framework: Diagram of a Nutrition Programme
- 2.6 Sample Logical Framework of a Nutrition Programme
- 2.7 The Elements of a Conceptual Framework

Materials: flipchart, four sets of cards of the various elements of hypothetical nutrition programmes, blank cards, pens, markers, masking tape, overhead transparencies, overhead projector, transparency pens

PROCEDURE

Session 1 Criteria for Selecting the Core Monitoring and Evaluation Team . . . . . 60 minutes

Step 1: Present the unit objectives and overview.

Step 2: Hang the following two cards on the wall:

Members of the Monitoring and Evaluation Team
Skills and Experience Needed

In 4 groups, ask participants to identify who should be a member of the monitoring and evaluation team and what skills the members need. Ask them to write their responses on the cards and to hang them on the wall. Discuss their responses.

Point out that the a monitoring and evaluation team refers to a small group of people who will be responsible for planning, supervising, and analysing monitoring and evaluation information. The team should include:

- **a monitoring and evaluation director** who is responsible for coordinating the planning and implementation of monitoring and evaluation activities. This includes supervising the project staff and team.

- **a nutritionist** who will provide technical support and help develop sound recommendations.

- **other resource people** including programme staff members and such people as social scientists, a statistician and those with good writing skills.

The **field team** usually consists of programme staff and other stakeholders including supervisors and interviewers. Ideally, all members of the monitoring and evaluation team should be recruited early to enable them to participate in all aspects of monitoring and evaluation activities. How the team is selected depends on local resources and the level of participation desired by programme personnel.

Step 3: Show **Transparency 2.1** which summarizes the recommended skills and experience of the monitoring and evaluation team. Compare this information with the responses given by participants. Point out the importance of having a team in place with backups before embarking on the monitoring and evaluation activities.

Step 4: Explain to participants that the number of field personnel required to conduct monitoring and evaluation depends on the methods to be used, including the number of interviews or focus groups to be conducted and the amount of time available for the completion of the field work. Point out that if time is short, several teams may need to work simultaneously which will increase the number of field workers and supervisors required. Also note that the distance between sites may affect transportation, costs and time required. Also point out that different monitoring and evaluation methods need different staff numbers and qualifications and different amounts of time to complete. All of these decisions have salary, accommodation, and transport implications.

Step 5: Using **Handout 2.1** explain the importance of training the team on the general issues related to the monitoring and evaluation activities. Ask participants how they plan to train field workers and monitor their work in the field. Point out that the training sessions should be as participatory as possible, using training techniques such as discussions, small group exercises, and role-plays. The training may take four to five days to complete.

Step 6: Explain the importance of field supervision during monitoring and evaluation activities. Point out that supervision involves giving guidance and advice as well as problem solving. Supervisors may be responsible for logistics coordination as well as the technical quality of the monitoring and evaluation activities in the field.

Explain that field supervision is critical to the effective performance of the team for the following reasons:

- it is important to ensure that staff have what they need to conduct monitoring and evaluation activities in a timely and efficient manner;
- daily supervision is necessary to catch errors or incompleteness of data, so that field workers can revisit households or individuals to correct any problems;
- if teams are working in widely separated sites, additional supervisors are needed.

Step 7: Ask participants why they think the monitoring and evaluation director should make frequent unannounced visits to observe field activities. The following points should come out:

- to examine a sample of data forms;

- to accompany interviewers to understand their work and offer suggestions for improvement;

- to validate each interviewer's work early in the monitoring and evaluation process;

- to train supervisors to be supportive rather than critical in dealing with problems and inconsistencies;

- to have staff feel free to ask questions and raise issues rather than to have them cover up mistakes out of fear of disapproval or criticism.

Session 2 Internal and External Monitoring and Evaluation . . . . . 30 minutes

Step 1: Remind participants that planning for monitoring and evaluation is done during the early stages of programme planning. Point out that there are three basic options for structuring monitoring and evaluation activities. These are:

contracting external evaluators
both internal and external personnel
programme personnel only

Step 2: Divide participants into two groups: Pro and Contra. Have participants debate the value of internal and external monitoring and evaluation. Ask some participants to serve on the judges' panel. Allow about 15 minutes for the debate.

Step 3: After the debate the following points should come out:

- In large, expensive nutrition projects, it may be well worth contracting with an external institution or consultant who would be actively involved in evaluation-related activities throughout the life of the programme or project.

- In medium-sized projects, it may not be necessary to have an external institution or evaluator involved in programme evaluation. Instead the external consultant, working at all times with internal staff, could take responsibility for designing the evaluation, assist in the identification of control groups, and participate in the data collection and analysis. The external consultant would also be involved in quality checks on monitoring data and would assist supervisors with data disaggregation.

- In smaller projects, an external evaluator, often a single individual with monitoring and evaluation expertise, would be present at the beginning of the project to advise on the monitoring and evaluation system as a whole, and specifically on issues of control group (or a reasonable substitute), sample size and critical indicators, and, in some cases, provide necessary orientation for staff who will be responsible for data collection and analysis.

- The external evaluator would then rejoin internal personnel at the conclusion of the project to review the monitoring and evaluation data collected and the analysis carried out, and would meet with project managers, service providers and groups of beneficiaries to discuss the process and interpretations of the conclusions.

Point out that external evaluations are more likely to be objective, and viewed by outsiders as objective, than internal evaluations. However, it is important to recognize that external evaluatiors, if not properly briefed, may sometimes be out of touch with programme realities and fail to appreciate the importance (or nuance) of programme activities and their impacts.

Internal monitoring and evaluation, on the other hand, may be more likely to capture the full context of a programme and be more relevant to programme needs. The disadvantages are that internal M&E activities may be viewed by outsiders (decision makers) as subjective and biased, and some programmes may not have staff with the skills to design, implement and evaluate M&E systems. In these cases, external consultants are recommended.

Step 4: Summarize this session by reminding participants that whenever an external evaluator or institution is involved in programme monitoring and evaluation, they need clear terms of reference and all necessary project documentation.

Ask participants to think about how they would plan for internal and external monitoring and evaluation of their own programmes.

Session 3 Developing a Programme Conceptual Framework . . . . . 120 minutes

Step 1: Remind participants that at the planning stage of a programme, it is necessary to include plans for monitoring and evaluation. This can be done by developing a conceptual framework of the programme, a tool which is simple and readily applicable in the monitoring and evaluation of any integrated development programme.

Explain that developing a conceptual framework for a programme allows staff to articulate how they anticipate programme inputs and activities will achieve the desired effects, reach consensus on the details of the programme, and clarify the terminology that will be used.

Remind participants that the process in the conceptual framework starts by understanding the problem/need the programme is addressing. What is the problem, how big, who does it affect, what are the cause(s) of the problem? If the programme defines the **problem** wrongly, everything thereafter is all wrong.

Step 2: Using **Transparency 2.5** (**Handout 2.2**; provide handout after discussing transparency), explain to participants that the framework indicates what *elements* need to be monitored and/or evaluated. These elements can later be translated into *indicators*. Inform the participants that they will learn more about indicators in Unit 3. Also point out that the framework makes it easier to identify specific constraints to programme effectiveness as the programme evolves.

Dividing a programme into various components makes it easier to create the necessary indicators to assess the programme and identify the specific constraints to programme effectiveness as the programme is being implemented. The programme conceptual framework is a dynamic instrument.

Step 3: Further point out that in this particular framework there are four principal elements: **inputs, outputs, outcomes, and impacts** that can be translated into indicators and are particularly useful in monitoring and evaluating nutrition programmes. Point out that we make **assumptions** about the relationships between these elements when creating this diagram.

Step 4: Using **Transparency 2.6** (**also Handout 2.3, but distribute the handout at the end of the exercise because they will complete the same logframe as part of group work**) explain that the elements of the conceptual framework can be rearranged into a logical framework to

organize the elements of the conceptual framework in tabular form.

Step 5: In small groups assign one of these five elements to each group. Ask participants to explain the meaning of the element they have been assigned. Allow 10 minutes for this activity.

At the end of the small group session, synthesize the group's reports and relate to **Transparency 2.7**. The following points should come out:

Inputs—all those resources that go into the programme at the onset or start-up phase or during the implementation to help the programme achieve its objectives.

The **inputs** (the number and qualifications of personnel, the financial resources, the institutional set-up, timing, etc.) must be designed as to meet the problem. The inputs should be distributed to meet all needy groups and be **accessible** financially, socially and technically. If this does not happen the inputs are useless and the outputs may not be met.

Outputs—all the goods and services delivered to the target population by the programme. Programme inputs have to be transformed into **outputs**. The quantity and quality of the outputs is very important.

For instance, if one programme input were the training of CHWs, the outputs are the number of trained CHWs. The quality of the training should also be "adequate," otherwise just training them would not help in effectively meeting the needs of the community.

Also explain that having very well-trained staff or people does not necessarily generate programme delivery nor impact. Success and impact are created by making sure that the trained personnel are enabled to do the work that they were trained for.

Outcomes—changes in behaviours/practices as a result of programme activities.

The outputs, if of the right quantity and quality, should produce an **outcome**. The skills of the CHWs should change, and if they do their tasks well, the detrimental behaviour/practices of the mothers should change for the better of their children's health. The change in skills of the CHWs and/or the change in behaviour/practices of the mothers is the outcome of the programme. The outcome is

expected to influence the problem, as defined initially.

Impacts—the effect of the programme on the beneficiaries. The change in the problem is the **impact** of the program on the beneficiaries/clients.

Assumptions—the external factors, influences, situations or conditions which are necessary for project success. They are important for the success of the programme but are largely or completely beyond the control of programme management. For example, in nutrition education, we may assume that community workers who are trained will understand the training and be motivated to do what they have been trained to do. However, we cannot be sure that this actually will happen. Accordingly, it is necessary to make assumptions explicit and list them in the framework as elements to be monitored or evaluated.

Step 6: Using **Transparency 2.6** (**Handout 2.3**) again, walk participants through the process of transferring the conceptual framework into a logical framework.

Step 7: Divide participants into four groups, and provide each group with a set of cards on which the various elements of a hypothetical nutrition programme are written (each group receives a different programme; **Figures 1-4** show the elements arranged in sample conceptual frameworks). Ask participants to arrange the cards to create a conceptual framework and copy their framework onto a flipchart. Allow about 15 minutes for this activity.

Once a group has completed a conceptual framework for their hypothetical program, ask them to complete **Handout 2.4** (a blank logical framework) for their hypothetical programme. Allow about 45 minutes for this. Share one or two examples in plenary.

Step 8: Ask participants to complete a conceptual framework and logical framework for their own programme during the evening. They should be prepared to share this in plenary the following day.

Session 4 Programme Goals and Objectives vis a vis Monitoring and Evaluation Objectives . . . . . 60 minutes

Step 1: Put two cards on the board: Goals and Objectives. In groups of four, ask participants to brainstorm and indicate what comes to their mind when they see the terms goals and objectives. Process their statements/words and then show them **Transparencies 2.2 and 2.3.**

Point out that goals do not specify concrete expectations or the criteria which will be used to measure programme success. Further note that goals are not time-bound and may often refer to the vision of a programme.

Step 2: Now explain to participants that objectives are derived from goals and must be SMART: **S**pecific, **M**easurable, **A**chievable, **R**ealistic and **T**ime- bound. Point out that programme as well as monitoring and evaluation objectives, are usually stated in the form of a declarative statement, stating the purpose of the programme or monitoring and evaluation and the precise ground to be covered.

Step 3: Tell participants that programme objectives should easily be seen in the "programme structure." Remind them that the programme is evaluated against its objectives and monitoring is done against outputs which contribute to the attainment of results and achievement of objectives.

Step 4: Explain that the elements of the structure should be understood and agreed upon by stakeholders. Ask participants why they think it is necessary to involve stakeholders in the task of developing the monitoring and evaluation objectives. The following points should come out:

- to ensure that monitoring and evaluation respond to the concerns of program managers and field staff, beneficiaries/clients and donors/government;
- to promote program stakeholders' sense of ownership of the monitoring and evaluation process and results;
- to provide the monitoring and evaluation coordinator with a clear understanding of the staff priorities for the monitoring and evaluation.

Step 5: Mention the fact that monitoring and evaluation objectives are often derived from programme goals and objectives. They are also often linked to the intended use of the information collected in the process. Show

Transparency 2.4.

Step 6: In the same 4 groups, assign the following task as an exercise. Distribute **Handouts 2.5a-d** and have each group write a goal and objectives for the programmes described:

Group 1: A growth monitoring programme with a food security component

Group 2: A child health programme providing micronutrient supplementation

Group 3: A school-based programme to improve micronutrient nutrition among adolescent girls

Group 4: A workplace-based programme to improve micronutrient nutrition among adolescent girls

Allow 10 minutes for this activity and share the responses in the groups.

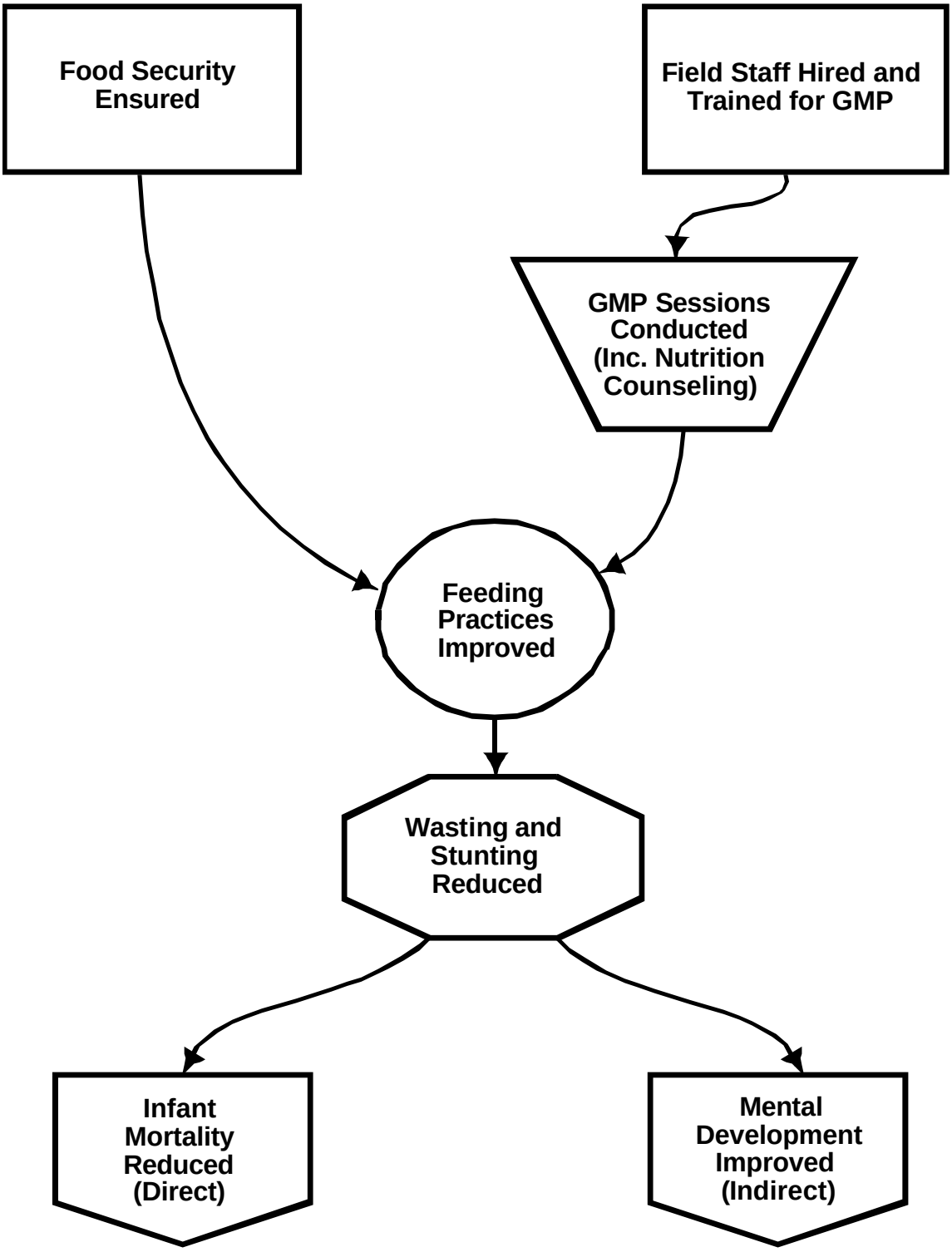
Now ask the same groups to write monitoring and evaluation objectives for the programme. Allow 15 minutes for this activity. When the groups have finished, share their monitoring and evaluation objectives in plenary and determine if the monitoring and evaluation objectives have been derived from and are related to programme goals and objectives.

Remind participants that monitoring and evaluation objectives should shed light on monitoring and evaluation questions. These questions in turn define the information which the monitoring and evaluation activities seek to collect and guide the development of data collection instruments. These questions should not be misunderstood to be those used in the actual interviews for a programme evaluation by collaborators. They are only a guide to development of the "real tool."

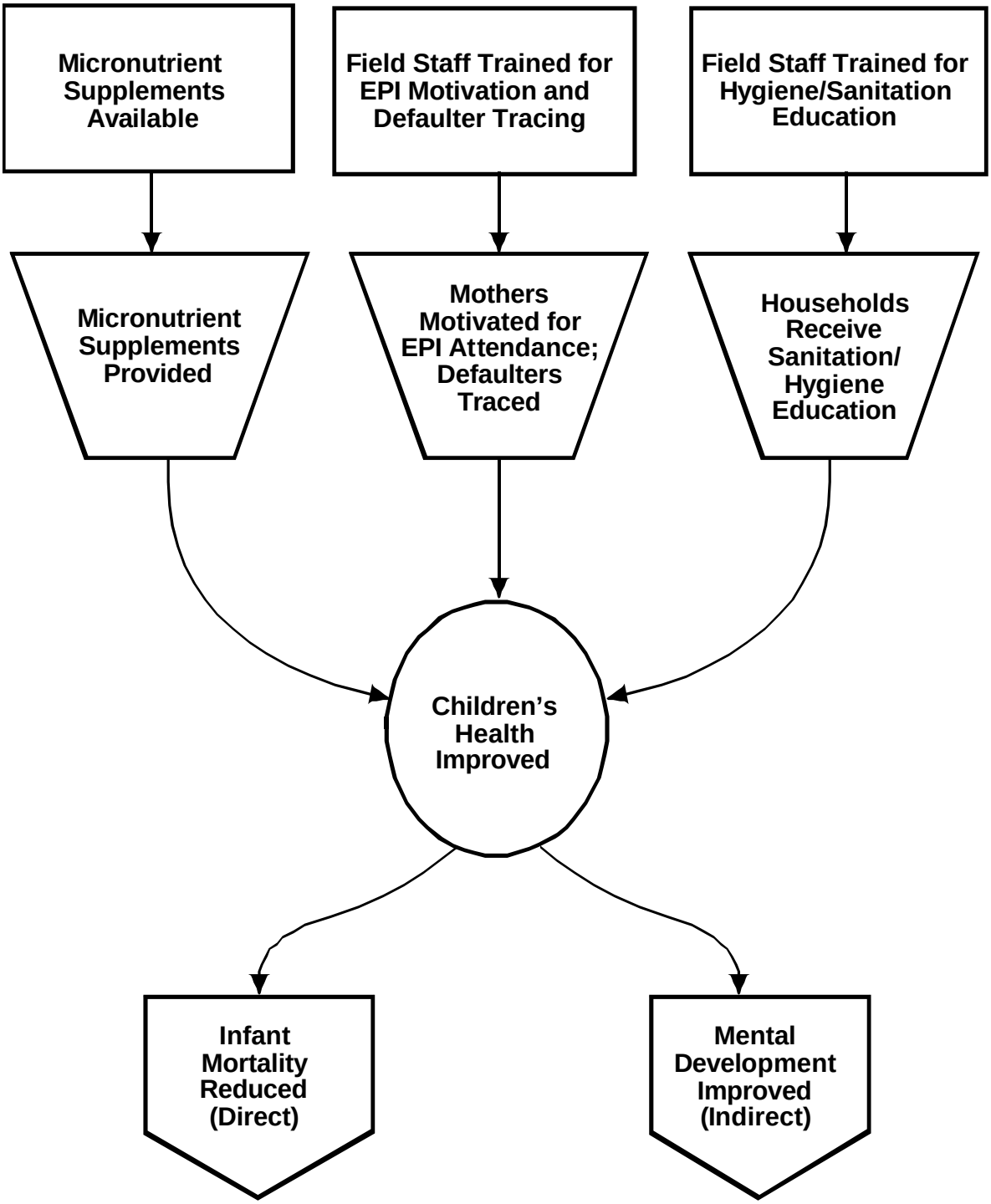
For example, an evaluation question for a programme involved in the training of community nutrition workers would be: *for each of the training sessions conducted, was a training plan developed and a report of the activity written*?

Step 7: Ask participants to review their own programme goals and objectives and to revise them if necessary. They should be prepared to present these in plenary in the following day's session.

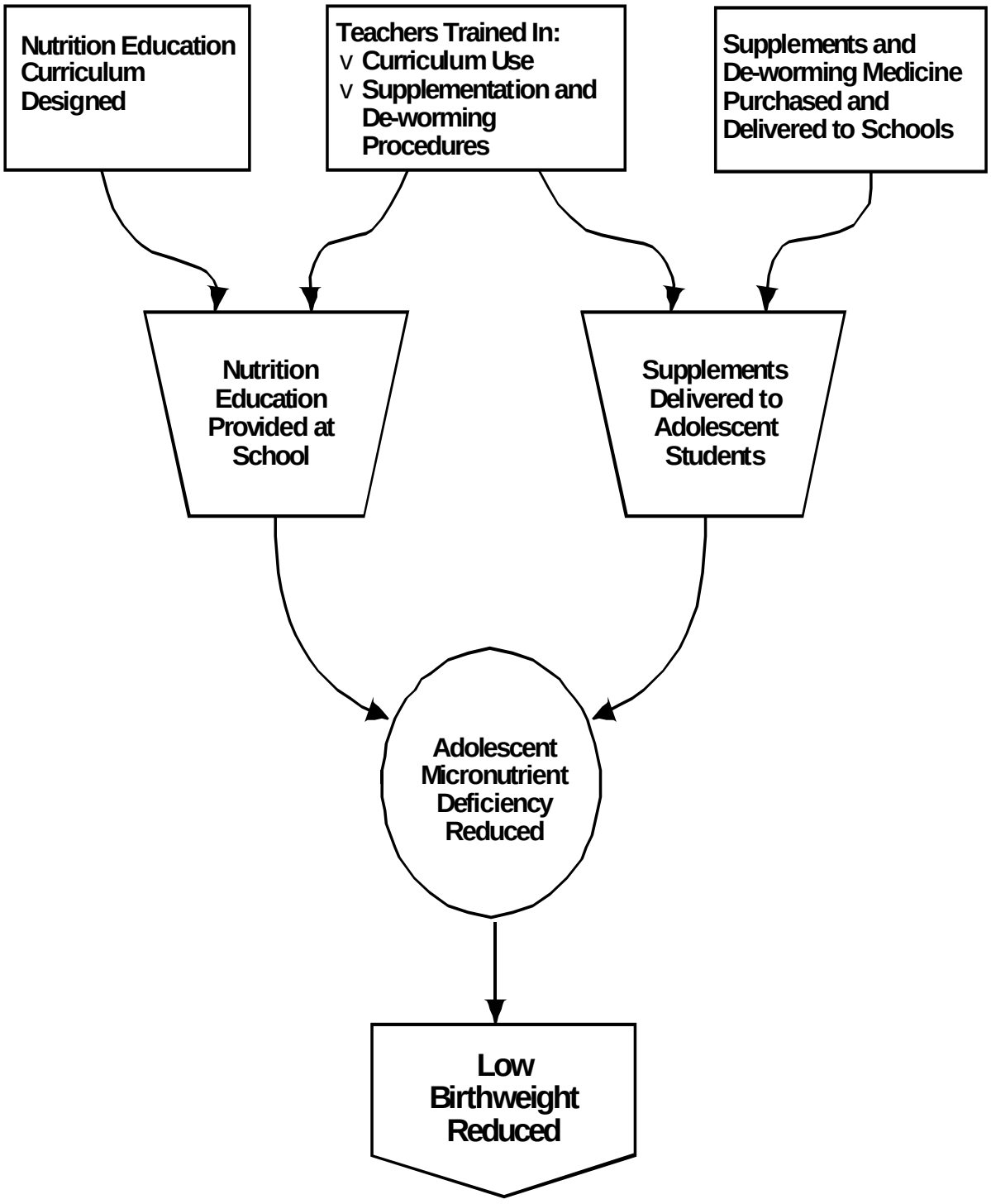
GROUP 1: A Growth Monitoring and Promotion Programme with a Food Security Component



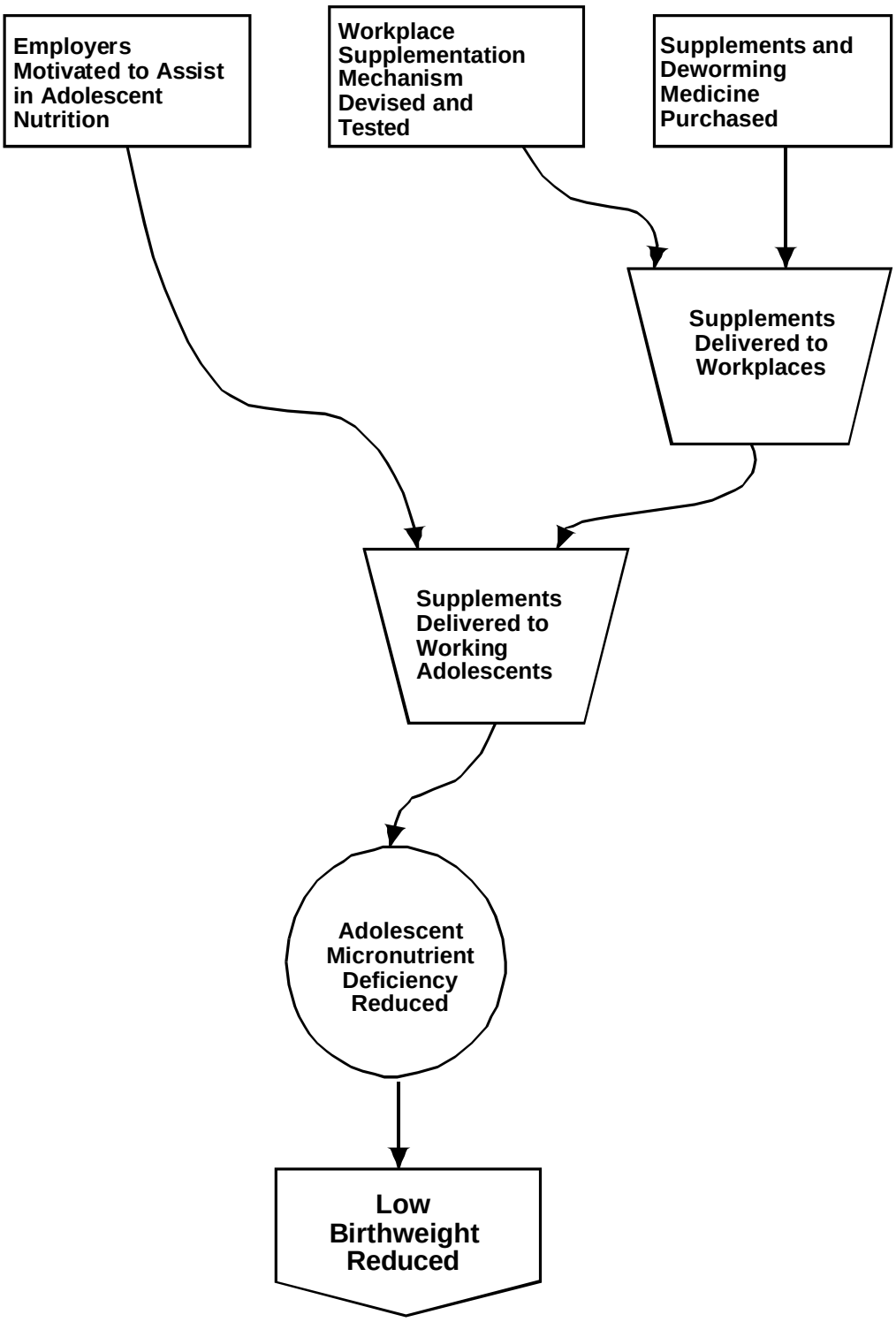
GROUP 2: A Child Health Program Providing Micronutrient Supplementation



GROUP 3: A School-based Programme to Improve Micronutrient Nutrition among Adolescent Girls



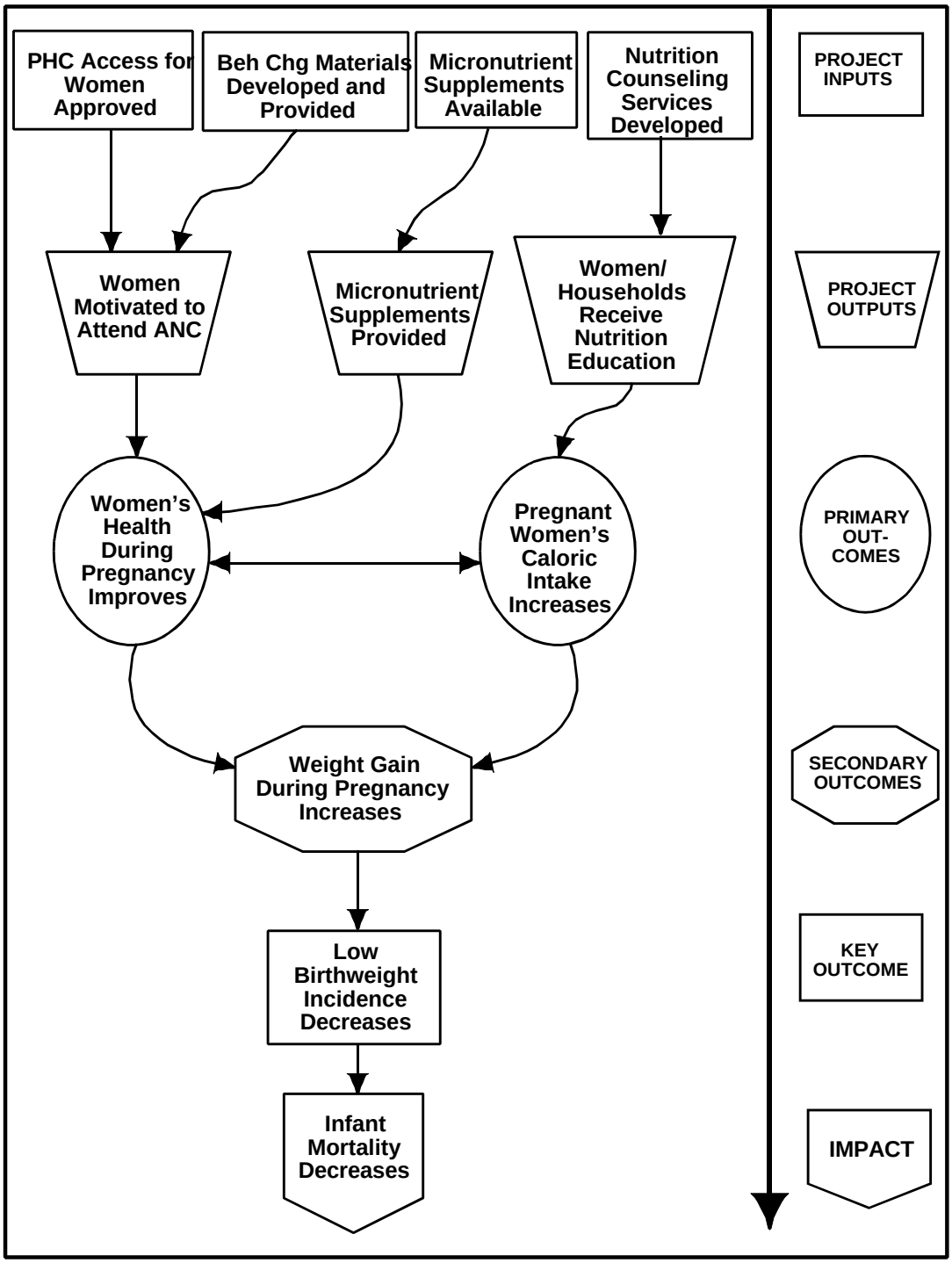
GROUP 4: A Workplace-based Programme to Improve Micronutrient Nutrition among Adolescent Girls



TOPICS FOR TRAINING MONITORING AND EVALUATION TEAMS

- Overview of the programme, its background and objectives.
- Objectives of the monitoring and evaluation.
- Outline of the training: objectives, format, schedule.
- Qualitative monitoring and evaluation methods: theory, attitudes, skills.
- Background information on child nutrition and feeding practices and their relevance to health.
- Expectations of field staff: responsibilities, attitudes, supervision.
- Field conditions and logistical arrangements.
- Overview of the monitoring and evaluation design, including methods, participants, and implementation schedule.

SAMPLE CONCEPTUAL FRAMEWORK



HANDOUT 2.3

LOGICAL FRAMEWORK

INPUTS	ASSUMPTIONS	OUTPUTS	ASSUMPTIONS	OUTCOMES	ASSUMPTIONS	IMPACT
PHC Access for Women Improved	Activity in the Health Sector will take place to improve access to PHC	Women Motivated to Attend Ante-natal Care	Women avail themselves of ANC health services	Women's Health During Pregnancy Improves	Morbidity and inadequate dietary intake are limiting factors for pregnancy weight gain	Infant Mortality Decreases
BCC Materials Developed and Produced	Field workers understand and use BCC materials to motivate women for ANC				Improved weight gain during pregnancy translates into improved birth weight	
Micronutrient Supplements Available		Micronutrient Supplements Provided	Women take micronutrient supplements	Pregnant Women's Caloric Intake Increases		
Nutrition Counseling Services Developed		Women/ Households Receive Nutrition Education	Nutrition education will lead to improved intra-household food distribution			
			Nutrition education will result in families making improved food choices for nutrition			
				Weight Gain During Pregnancy Increases		
				Low Birth Weight Incidence Decreases		

HANDOUT 2.4

LOGICAL FRAMEWORK

INPUTS	ASSUMPTIONS	OUTPUTS	ASSUMPTIONS	OUTCOMES	ASSUMPTIONS	IMPACT

Group 1: A Growth Monitoring Programme with a Food Security Component

This programme, part of a larger project, addresses wasting and stunting through growth monitoring and promotion, and improved food security. (The food security component is separate from the nutrition education programme and was summarized as one card in the previous exercise without detailing the conceptual framework by which "food security is ensured.") Mothers bring their children for monthly growth monitoring, and field workers use the growth chart as a demonstration tool to motivate them for feeding practices that promote growth.

If a child's growth is adequate, the field worker discusses the feeding practices that the mother employs and encourages her to continue them. If a child's growth is inadequate, the field worker and the mother discuss current feeding practices and improved practices that can promote the child's growth. The field worker and the mother of a growth-faltering child negotiate at least one feasible change in feeding practices that the mother agrees to try for the next month.

Group 2: A Child Health Programme Providing Micronutrient Supplementation

This program provides children with iron supplementation (iron/folate in syrup form) and with vitamin A capsules following bouts of severe diarrhea or measles. Concurrent activities improve EPI coverage. Field workers motivate mothers to attend EPI campaigns and to ensure that their children are fully immunized, while also tracing and following-up on mothers/children who fail to complete the EPI regimen. Most families in the working area have access to adequate sanitation facilities but fail to use them adequately, so workers provide education on sanitation and hygiene during interactions with mothers and through home visits.

Group 3: A School-based Programme to Improve Micronutrient Nutrition among Adolescent Girls

In the area where this project is active, most mothers deliver their first child while still in their adolescence. Adolescent mothers have high rates of complications of delivery, and the high prevalence of anaemia increases their chance of death from hemorrhage. Frequent pregnancies with short inter-pregnancy periods characterize reproductive behaviors in this area, and improved iron stores prior to first pregnancy is seen as an important goal for reducing anaemia in pregnancy.

The project uses three school-based approaches to improve iron status: nutrition education to improve consumption of iron-rich and absorption-enhancing foods, periodic de-worming, and weekly iron supplementation at school.

Group 4: A Workplace-based Programme to Improve Micronutrient Nutrition among Adolescent Girls

In the area where this project is active, most mothers deliver their first child while still in their adolescence. Adolescent mothers have high rates of complications of delivery, and the high prevalence of anaemia increases their chance of death from hemorrhage. Frequent pregnancies with short inter-pregnancy periods characterize reproductive behaviors in this area, and improved iron stores prior to first pregnancy is an important goal for reducing anaemia in pregnancy.

Many adolescents in this area drop out of school to earn income by working in factories. The project uses two workplace-based approaches to improve iron status: periodic de-worming and weekly iron supplementation. Additionally, the project motivates factory owners to recognize the need to support their adolescent employees by contributing to their nutritional well-being. Eventually, employers are expected to assume the costs of the program as they understand both the humanitarian and productivity benefits it affords.

SKILLS AND EXPERIENCE NEEDED BY THE MONITORING AND EVALUATION TEAM

- Respect for the perspective of potential programme participants and willingness to learn from the participants are essential attitudes of all team members.
- Experience with qualitative monitoring and evaluation and data analysis.
- Programme experience and an orientation toward community development.
- Technical expertise in nutrition and child health.
- Management skills: financial, logistical, personnel.
- Writing skills.
- Willingness and time available to provide close and supportive supervision of field activities.
- Democratic style: willingness to listen to the interviewers and learn about the results of the field work.
- Familiarity with local languages and cultures.

GOALS

Goals are the broad aims of a programme. They refer to the significant, long-term changes that planners expect to occur in people's lives but may not be totally achieved during the life of the programme.

Examples of goals include:

- the enhancement of food security in single parent households
- the eradication of protein-energy malnutrition
- the elimination of iodine deficiency disorders

OBJECTIVES

Objectives are statements of intent which specify in concise, measurable terms how goals will be achieved. Unlike goals, objectives are time-bound and achievable.

Examples of programme objectives include:

- To increase the caloric intake among children under 24 months by 30% in Nyeri District by year three of the programme.

- To reduce prevalence of anaemia in pregnant women by 30% in Malawi by 1999.

- To improve the quality of counselling services at 9 MCH clinics in Mpumalanga for mothers with children under 3 years by 2001.

MONITORING AND EVALUATION OBJECTIVES

Monitoring Objectives

To determine the trend in the frequency of feeding children and the variety of foods fed to children under 24 months in 3 villages in Nyeri on a monthly basis.

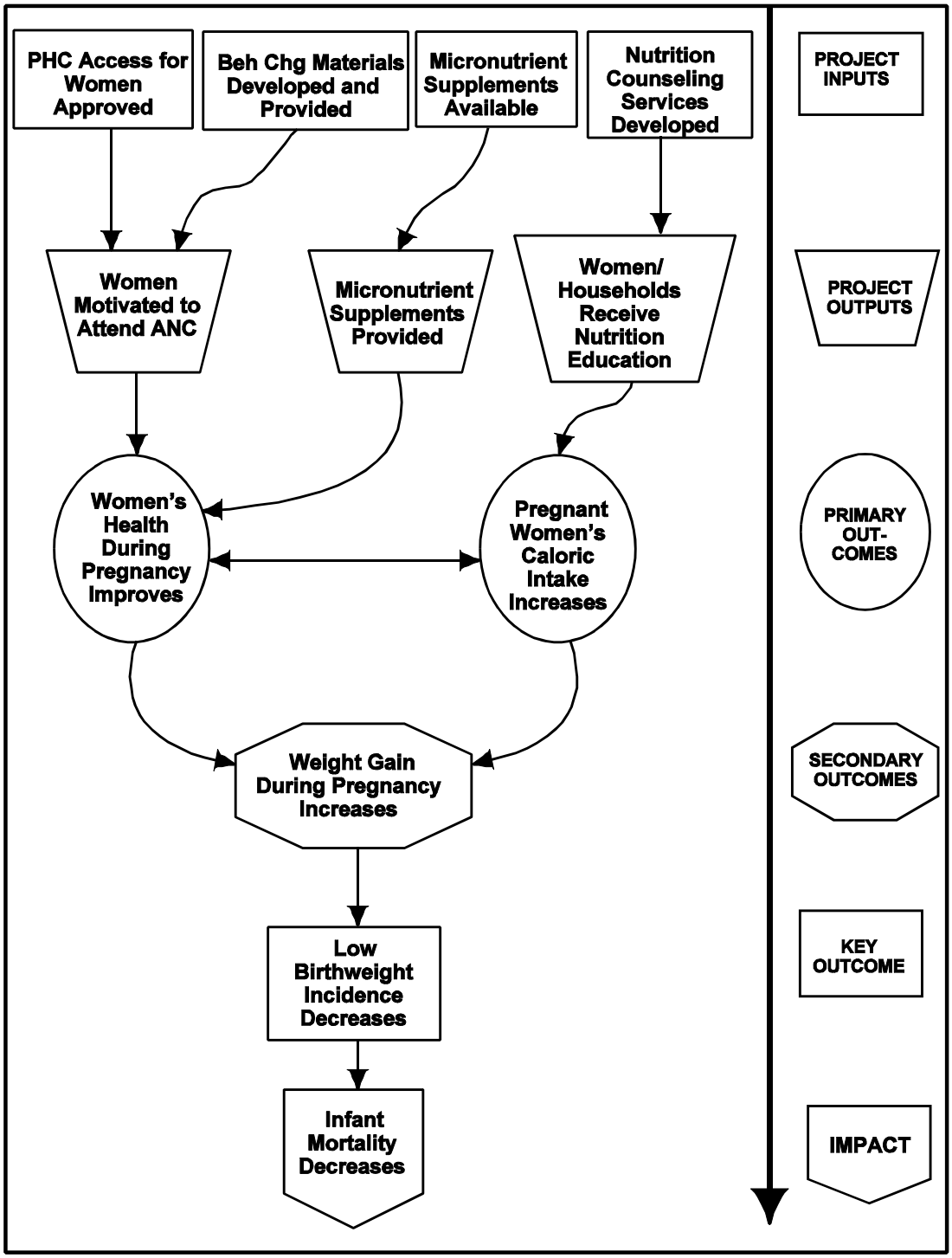
To determine the use of available data for programme management.

Evaluation Objectives

To determine whether the prevalence of anaemia among pregnant women in Malawi has been reduced by 30%.

To evaluate the change in the quality of counselling in nine MCH clinics in Mpumalanga between 1998 and 2001.

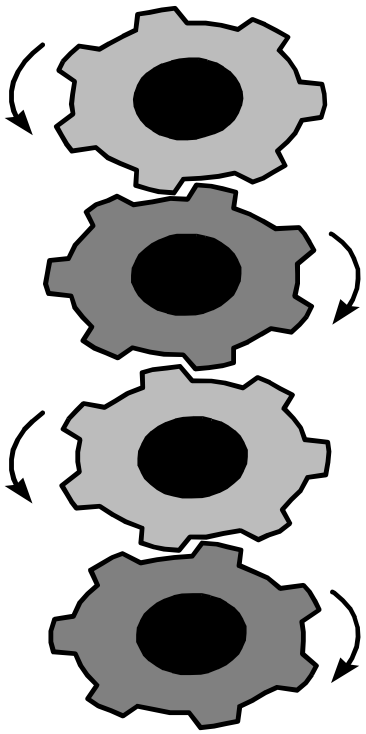
SAMPLE CONCEPTUAL FRAMEWORK



LOGICAL FRAMEWORK

INPUTS	ASSUMPTIONS	OUTPUTS	ASSUMPTIONS	OUTCOMES	ASSUMPTIONS	IMPACT
PHC Access for Women Improved BCC Materials Developed and Produced Micronutrient Supplements Available Nutrition Counselling Services Developed	Activity in the Health Sector will take place to improve access to PHC Field workers understand and use BCC materials to motivate women for ANC	Women Motivated to Attend Ante-natal Care Micronutrient Supplements Provided Women/ Households Receive Nutrition Education	Women avail themselves of ANC health services Women take micronutrient supplements Nutrition education will lead to improved intra-household food distribution Nutrition education will result in families making improved food choices for nutrition	Women's Health During Pregnancy Improves Pregnant Women's Caloric Intake Increases Weight Gain During Pregnancy Increases Low Birth Weight Incidence	Morbidity and inadequate dietary intake are limiting factors for pregnancy weight gain Improved weight gain during pregnancy translates into improved birth weight	Infant Mortality Decreases

THE ELEMENTS OF A CONCEPTUAL FRAMEWORK



INPUTS: all those resources that go into the programme at the onset or start-up phase or during implementation to help the program achieve its objectives

OUTPUTS: all the goods and services delivered to the target population by the programme

OUTCOMES: changes in behaviors/ practices as a result of programme activities

IMPACT: the effect of the programme on the beneficiaries

UNIT 3 MONITORING AND EVALUATION INDICATORS

PURPOSE OF THE UNIT

This unit helps participants to identify the components of a nutrition programme. It also explains what indicators are and how to identify and select appropriate indicators for programme monitoring and evaluation.

OBJECTIVES

By the end of this unit, participants should be able to:

- describe the characteristics of indicators;
- identify indicators that can be used to monitor a programme;
- identify indicators that can be used to evaluate a programme.

UNIT OVERVIEW

Session 1: Characteristics of Indicators (60 minutes)

Session 2: Selecting Indicators (85 minutes)

TIME

2 hours 25 minutes

ADVANCE PREPARATION

Prepare and photocopy handouts and make the transparency. Ensure all materials are available.

Handouts: 3.1Characteristics of a Good Indicator
3.2 Indicators for Monitoring and Evaluation

Transparencies: 3.1List of Indicators

Materials: flipchart, marker pens, masking tape, VIPP cards, pins

PROCEDURE

Session 1 Characteristics of Indicators . . . . . 60 minutes

Step 1: Start this session by discussing the objectives of the unit and then give a brief overview of the unit.

Step 2: Ask participants to brainstorm on what an indicator is. List their responses on the flipchart. The following points should come out:

- An indicator is a measure of progress towards meeting a programme's objectives. Indicators can measure a programme's inputs, outputs, outcomes, process and impact.

- Explain that a proxy indicator can be used in place of an indicator. A proxy indicator is a measure that is used instead of a direct measure. It approximates another variable whose measure is not feasible or impractical. In field settings, direct measures may be impossible or impractical to gather. In such cases it is necessary to rely on indirect measures commonly known as proxy indicators.

- Proxy indicators need to be validated to insure that they are actually measuring what they intend to measure. Additionally, they are context-specific and once validated in one situation do not automatically transfer to another; the appropriateness of proxy indicators often varies with programmes and communities.

- Examples of proxy indicators of socio-economic status include: the materials used to build a house, size of dwelling in relation to number of members, and household possessions.

Step 3: Ask participants if they know the characteristics of a good indicator. List their responses on the flipchart. The following points should come out:

An indicator should be valid, simple, clearly and precisely defined, reliable, sensitive to change, and variable.

Show **Transparency 3.1** with the following list of indicators.

Percentage of salt supply adequately fortified with iodine.

Number of community health workers trained in breast-feeding counselling.

Percentage of women who consume fewer than two meals per day

Percentage of children whose weight for age is more than two standard deviations below the median and who have consumed fewer than two meals a day for at least three days during the preceding week

Percentage of babies born with low birth weight

Infant mortality rate

Adult women's height

Percentage of programme participants who practice key nutrition behaviours promoted by the programme

Percentage of malnourished women based on body mass index (BMI)

Ask participants the following questions:

Which of these meet the criteria of good indicators?
Which can be used as proxy indicators?
How and why can they be used as proxy indicators?

Step 4: Ask participants to explain why it is necessary to identify or develop appropriate indicators for monitoring and evaluation.

Mention that indicators are needed in order to monitor and evaluate programme implementation and impact. By comparing the same indicators over time, it is possible to measure change, and determine where action needs to be taken.

Step 5: Distribute **Handout 3.1** on the characteristics of good indicators. Conclude this session by answering any questions participants might have about indicators.

Session 2 Selecting Indicators . . . . . 85 minutes

Step 1: Explain to participants that it is not always possible to regularly monitor all elements of the programme conceptual framework. It is necessary to prioritize information needs and decide which indicators will be monitored regularly, which will be checked periodically (less often), and which will be assessed through special studies or a pre-planned evaluation.

Ask participants to brainstorm on the criteria for deciding when and what to monitor and evaluate. Allow 15 minutes for this activity. The following criteria should be mentioned:

- ease of collecting, interpreting, and using the information
- time required
- source of information
- variability in the characteristic or element being measured
- cost
- use of the information (act on the findings)
- purpose for which the information will be used
- level at which the information will be used
- relative importance of the information to the programme objectives

Step 2: Explain to participants that the process followed to select indicators is a critical part of designing and putting into place a monitoring and evaluation system. Using the criteria for a good indicator, those responsible for designing a monitoring and evaluation system often find it helpful to involve stakeholders in selection of appropriate measures for at least outcome and impact indicators. Such efforts at the design stage may well reduce confusion and second guessing later on. The selection of indicators may be critical in subsequent perceptions of whether a programme has been successful.

Step 3: Point out that stakeholders should participate in identifying and selecting indicators to ensure that their expectations and information needs are addressed. Discuss with participants the different ways they involve stakeholders in the selection of indicators.

Point out that a participatory process of selecting indicators should incorporate stakeholders who are directly involved with programme implementation, ideally together with a professional experienced in monitoring and evaluation.

One approach is to generate, from scratch, a list of desired indicators from the stakeholders themselves. These may include some indicators that do not necessarily reflect the programme objectives. A second is to present to

stakeholders a menu of possible indicators listing the advantages and disadvantages of each. A third, less participatory, approach is to have a small team, consisting of outside professionals and key programme staff, develop the indicators.

Step 4: Explain to participants that regardless of the technique used, the indicators generated for programme monitoring and evaluation should be reviewed to make certain that they conform to the above-mentioned criteria before being incorporated into a data collection system. Monitoring and evaluation staff need to select a set of indicators which, when taken as a whole, provide enough information to assess implementation or the effect of the programme. This generally requires finding a balance between the *ideal* and the *practical* and collecting only what is needed rather than what is possible or interesting.

Step 5: Also point out that the process of selecting practical indicators also implies that the frequency of collection is manageable. In large-scale nutrition programmes, most collection of monitoring data is carried out on a monthly basis or tabulated as monthly averages. Child growth monitoring and pregnancy weight gain data is generally collected on a monthly basis. Coverage of on-site supplementary feeding, although carried out and recorded daily, is usually presented on a monthly basis as the proportion of eligible women or children coming daily or on a majority of days, or the average percentage of eligible recipients appearing on an average day.

Data seeking to measure behavioural change, e.g. the proportion of infants aged 6 - 9 months who are receiving complementary food, would likely be difficult to collect on a monthly basis, but might be appropriate for quarterly or semi-annual collection and analysis. Data on coverage and massive dose supplementation for children are usually presented semi-annually.

Tell participants that if stakeholders do not understand the choice of indicators or the validity of a proxy indicator they would reject them.

Step 6: Mention that the choice of indicators, particularly for evaluation, may influence perceptions about the success or failure of a programme. Some maternal nutrition programmes use the reduction of the percentage of low birth weight as an indicator of programme or project success despite the fact that there are many factors other than nutrition that affect low birth weight. These perceptions may influence subsequent programme decisions. For these reasons, selecting appropriate indicators is an important step in the M&E process.

Step 7: Refer participants to the completed conceptual framework of a nutrition programme that was completed in Unit 2 Session 3. Ask participants to get

into the same groups and ask them to identify and select appropriate input, output, outcome, and impact indicators for this programme by answering the following questions:

- what information is needed to monitor the programme? to evaluate the programme?
- who will collect this information?
- where is this information to be found?
- who will use the information?
- for what purposes will it be used?

Distribute **Handout 3.2** for them to complete their answers. Allow 30 minutes for this activity.

In plenary, ask each group to present their indicators and the answers to these questions. Allow each group 5 minutes for their presentation.

Step 8: Ask participants to work on their own programme indicators and be prepared to have two or three volunteers share their indicators in plenary the following day. Conclude this session by asking participants if they have any questions about selecting indicators.

CHARACTERISTICS OF A GOOD INDICATOR

Good indicators should be useful in the establishment of "trigger points" for action. They should provide information useful enough to merit the cost of collecting it. In addition, they should have the following characteristics:

Simple:- Indicators should be simple without compromising the essence of the variable. Selecting a simple indicator is not always an easy task. It may require finding a balance between the ideal (which may be complex and/or impossible to collect) and the practical. Additionally, it is important to collect only what is needed rather than what is possible or interesting.

Clearly and precisely defined:- Each term of an indicator should be clearly and precisely defined. It is not sufficient, for instance, to use "percent of underweight children" as an indicator. What does "underweight" mean? Which children are being measured? Moreover, presenting indicators as proportions permits an understanding of the population which the indicator reflects (the denominator). A better indicator would be:

$$\frac{\text{number of underweight (WAZ < -2) children aged 6-24 months}}{\text{total number of children aged 6-24 months who were weighed}}$$

Measurable:- Both quantitative and qualitative indicators should be measurable. Some indicators can be directly measurable, e.g., height and weight, while other indicators need to be defined. Clearly and precisely defining indicator terms makes indicators measurable. For example, access to piped water, can be measured simply by observation once "access" is defined (e.g., available inside the household; available within 250 yards). Sometimes, a scale or index needs to be created to measure a qualitative variable in quantitative terms. Knowledge of correct breast feeding practices, for example, might be measured by a respondent's ability to give the correct answers to a set of objective questions.

Valid:- A valid indicator accurately reflects the situation it is intended to measure. A valid indicator in one area may be less so in another, therefore it may be inappropriate to transfer indicators from region to region or programme to programme. For Vitamin A status, for example, dietary intake may be a valid proxy indicator in an area with adequate intake of fat but an invalid indicator in another area where fat intakes limit Vitamin A absorption.

Reliable:- A reliable indicator will produce the same results every time it is measured, regardless of who collects the data. Reliability is not the same as validity. A reliable indicator may provide an invalid result.

Variable:- To be useful, indicators must show variation between subjects and over time.

If the indicator does not vary, it will not discriminate between those who have benefited from the program and those who have not. Height is a variable indicator for young children, and we can expect well-nourished preschoolers to show more rapid growth in height than malnourished ones. Among adults, height does not vary greatly over time nor with nutritional status, therefore, it is not of interest for tracking program impact.

Sensitive:- To be useful, indicators must be sensitive to change over time. Some indicators vary in one setting but not in another. For example, the materials used in house construction may be a good indicator of economic status in rural areas, where houses may be made of mud, sticks, or cement, but not urban areas where the poorest households live in cement structures. In another example, in order to monitor or evaluate trends (changes) over time, an indicator must be able to measure (capture) the desired changes in (during) the time intervals planned for monitoring or evaluation activities.

HANDOUT 3.2

Indicators for Monitoring and Evaluation **Type of programme: _____**

Element	Indicator	Source	Who collects	How often	For what purpose

INDICATORS

Percentage of salt supply adequately fortified with iodine.

Number of community health workers trained in breast-feeding counselling.

Percentage of women who consume fewer than two meals per day.

Percentage of children whose weight for age is more than two standard deviations below the median and who have consumed fewer than two meals a day for at least three days during the preceding week.

Percentage of babies born with low birth weight.

Infant mortality rate.

Adult women's height.

Percentage of programme participants who practice key nutrition behaviours promoted by the programme.

Percentage of malnourished women based on body mass index (BMI).

UNIT 4 EVALUATION DESIGNS

PURPOSE OF THE UNIT

This unit helps participants to understand different designs that can be used for conducting an evaluation. The unit explains the importance of a management information system as a key component in a monitoring and evaluation system. It also provides information on population and different methods of sampling. Lastly the unit describes how to organize the logistics of monitoring and evaluation.

OBJECTIVES

By the end of this unit, participants should be able to:

- describe different evaluation designs;
- select an appropriate design for evaluating a nutrition programme;
- explain the importance of an MIS in a monitoring system;
- explain how to select a sample for an evaluation;
- explain the logistics of monitoring and evaluation.

UNIT OVERVIEW

Session 1: Types and Characteristics of Different Evaluation Designs (120 minutes)

Session 2: Management Information Systems (60 minutes)

Session 3: Population and Sampling (150 minutes)

Session 4: Preparing for Implementation of Monitoring and Evaluation Activities (120 minutes)

TIME

7 hours

ADVANCE PREPARATION

Prepare and photocopy handouts and make the transparencies. Ensure all materials are available.

Handouts: 4.1 Threats to Validity

4.2 Types of Study Designs
4.3 Characteristics of Experimental Evaluation Designs
4.4 Group Work on Sampling
4.5 Sampling Procedures
4.6 Budget Categories

Transparencies:
4.1 Evaluation Designs
4.2 Programme Components
4.3 Work Plan for Monitoring and Evaluation

Materials: flipchart, marker pens, tape, VIPP cards, coloured balls for demonstration of evaluation designs, piece of fruit, different types of dried beans

PROCEDURE

Session 1 Types and Characteristics of Different Evaluation Designs . . . . . 120 minutes

Step 1: Refer participants back to **Handout 1.4** and point out to them where we are in the phases of conducting an evaluation. Point out that in this session we will be describing various evaluation designs. Ask participants to describe different evaluations they know about or have been involved in the past. Ask them to share the "evaluation questions" they were trying to answer in these evaluations. List these on the flipchart.

Explain to participants that they needed to select an evaluation design that enabled them to answer these questions. Point out that to answer each question involves measuring change. Further mention that the correct evaluation design enables us to determine whether the *project/programme* caused the change.

Step 2: Referring to the list of evaluation questions, ask the participants what other factors could be responsible for changes measured in an evaluation.

After participants have made some suggestions, group them into types and explain that these other factors are called **threats to validity**. Ask someone to remind the group what validity means. Then explain the following threats to validity:

- history (a change or event that just occurred and produces an effect that influences study results);
- selection bias (where units in the control group differ completely from those in the experimental group, for example, clinic and outreach, or Christians and Muslims);
- testing effect (where a pre-test is given and has an effect on the post-test);
- instrumentation bias (change in the way questions are asked or instruments are used);
- maturation (people mature and change, resulting in a change of measure);
- mortality/attrition (people dropped out of the programme, others died, some moved).

Distribute **Handout 4.1** which describes threats to validity and answer any questions participants may have.

Step 3: Introduce the following three types of evaluation designs:

experimental designs
non-experimental designs
quasi-experimental designs

Note that the differentiating characteristics between these various types of evaluation designs are:

control groups
randomisation

Step 4: Ask participants to form a circle around the facilitator, who will demonstrate different evaluation designs on the floor using coloured balls. Use the same coloured balls to demonstrate groups that are equivalent, and different coloured balls to demonstrate groups that are not equivalent, or observed changes. Use fruit, placed between observations, to indicate a nutrition intervention. Allow 90 minutes for this demonstration. Discuss each design as it is being presented.

Step 5: Distribute **Handout 4.2** and **Handout 4.3** which describe the types of study designs and explain the meanings of the terms used in these designs by walking participants through the handouts. Answer any questions participants have.

Step 6: To end this session, ask one participant to prepare to share the design used to evaluate his or her own programme. Request the participant to prepare on the evening before this session, and allow 10-15 minutes for the presentation. To summarize and if need be, show **Transparency 4.1** which has different types of evaluation designs.

Session 2 Management Information Systems . . . . . 60 minutes

Step 1: Re-introduce participants to the definition of monitoring and remind them of the earlier discussion that monitoring can be either a periodic or a day-to-day data collection of information about the programme. Explain to the participants that the information on monitoring activities is usually kept in a management information system (MIS) which is a part of the monitoring system. Ask participants to describe what a management information system is. Have the co-facilitator write their responses on a flip chart. Make sure the following points come out:

> A Management Information System is a strategy and method for collecting, storing, organizing, and reviewing (using feedback) monitoring information for the purpose of management decision making.
>
> An MIS is one tool that programme managers have at their disposal to enter, process, and review information about programme activities and they use it to make decisions on the programme in general. As such, an MIS is part of a monitoring system.
>
> An MIS can exist at many sites and levels within a programme. For example, a given nutrition programme can collect, manage, and act on information at the community or district level. This information can also be analysed, reviewed, and used for decision-making purposes at higher levels. An effective MIS will also have mechanisms in place at all levels for feedback to be given and received on such decisions.
>
> An MIS can help to improve the quality (adequacy and accuracy) of data collected. It is one way to develop a reporting system that identifies information flows and reporting levels, by increasing ease of access to information. It helps to institutionalize feedback.

Step 2: Ask participants to give examples of the MIS or monitoring data system from their own programmes and share how the data are used and how they think the system is important.

Step 3: Explain to participants that they are going to do a **SWOT** analysis. Point out that a **SWOT** analysis is a tool to help programme managers to think about the **s**trengths, **w**eaknesses, **o**pportunities and **t**hreats of their MIS. Using a flipchart, ask participants to identify the strengths of their MIS and list these in the “Strengths” quadrant of a **SWOT** diagram. The following points should come out:

The MIS exists
Can collect and store data
Personnel is there
Different forms available to collect different types of information
Can be used to reach the lowest level

Then do the same for the Weaknesses. The following points should come out:

Information may not be specific/categorized
Too much upward, one-directional information flow
Reports are not valid
Gaps in information
Data not analysed and used
Data not timely
People who collect data don't understand the need to do so
No demand for the data/information
Too much data

Inform the participants that the methods used for collecting data determine how it is analysed. This will be covered in later sessions.

Step 4: Ask participants to complete the SWOT diagram by doing the same for Threats and Opportunities. Inform participants that weaknesses can be turned to strengths and threats to opportunities.

Step 5: Conclude this session by displaying **Transparency 4.2** on programme components and discussing the various activities at each level of a programme, and telling participants that when designing a management information system they need first to determine:

- What information will be most useful for programme management?
- What information will be most useful to programme implementors (at different levels)?
- What information will be readily available through programme implementation?
- What added information needs to be collected as part of programme monitoring?
- Which indicators can be realistically monitored by programme staff?

- How will the information be stored and retrieved?
- What will be the most appropriate/effective feedback channels?

Session 3 Population and Sampling . . . . . 150 minutes

Step 1: Hang a card on the wall with the word "Population" written on it. Ask participants to define it.

> A **population** is a group of individuals inhabiting a specific area or sharing specific characteristics.

Step 2: Ask participants what kind of population characteristics we are interested in for nutrition programme evaluations. Some examples are:

> height
> weight
> Hb or anaemia prevalence
> growth rate
> < 2 years - vegetable consumption
> income/expenditure

Step 3: Hang a second card on the wall with the word "Sample" written on it. Ask participants to define the term sample. The following should come out:

> A **sample** is a subset of any category of stakeholders who represent the entire group of stakeholders or population.

Step 4: Ask participants what they think makes a good sample. The key concept to come from the discussion is **representativeness**.

Step 5: Ask participants if sampling is important for evaluation design, for monitoring, or both. Ask for examples of when sampling can be important for monitoring (e.g., special studies).

Step 6: Ask participants to say what determines how large a sample is necessary. Three concepts should emerge:

- Representativeness: the larger the sample, the more likely it is that the sample represents the population (small samples can, by chance, be unrepresentative).
- Comparisons: if making comparisons about populations, the sample needed from each will be larger than needed to estimate just one population.
- Differences: the larger the differences between populations, the smaller the sample needed to make conclusions about

the differences.

Step 7: Explain to participants that there are two mistakes that can be made when making conclusions about differences between populations. Point out that one error is to say that the populations are different when they are not and that the other possible error is that the populations are not different when they are.

Ask participants what types of populations we would want to compare in the evaluation of a nutrition programme.

Step 8: Point out that both of the two possible errors become less likely as the sample gets larger. Thus, we can be more confident about conclusions from larger samples.

Step 9: Inform participants that computer programmes such as Epi-Info are available that can determine the minimum necessary sample size based on how:

confident they feel they must be about conclusions concerning differences between populations;

big a difference they expect.

(If these computer programmes are available, offer to demonstrate how they work).

Step 10: Ask participants how they know the size of the difference to expect. Allow several to suggest possibilities, but ensure that the following points come out:

- other similar projects may have reported their effects;
- a review of the literature may help us guess how much effect we can expect from an intervention similar to the one we will evaluate;
- we also can determine what is a **practical** difference that we consider worthwhile based on the resources and effort planned for the programme.

Step 11: Divide participants into 4 groups and distribute **Handout 4. 4**. Assign each group one scenario. Provide each group with different types of beans which are appropriate for and depict the scenario. Ask each group to determine what type of sampling procedure they would use and to explain

why they would do so. Allow about 25 minutes for this activity and then share the groups findings in plenary.

Step 12: To conclude this session, distribute **Handout 4.5** on sampling procedures and ask participants to read through it. Answer any questions they may have about sampling and sampling procedures.

Session 4 Preparation for Implementation of Monitoring and Evaluation Activities . . . . . 120 minutes

Step 1: Remind participants that monitoring and evaluation activities are an integral part of programme management. They need to be in-built in the design and plan of action. Inform the participants that the monitoring and evaluation team should be in place and indicators selected. In addition, there should be a management information system in place and the evaluation design should be selected.

Step 2: In groups of three, ask participants to brainstorm and identify all the tasks that are involved in the preparation for conducting monitoring and evaluation activities. Allow 15 minutes for this activity and then let the participants share their responses in plenary and write them on the flipchart. For monitoring, the following points should come out:

- setting up an administrative system for monitoring;
- planning of logistics;
- develop work plan/time line;
- mobilize the available financial resources;
- work out additional budget;
- mobilize the human resources required;
- mobilize all the needed material supplies, including computers, stationery, and equipment;
- arrange supervisory/field visits;
- organize transport;
- design a dissemination strategy for the findings;
- organize an effective feedback system.

For evaluation, the following should come out in addition to those that have been mentioned for monitoring:

formulate the terms of reference;

arrange for the introduction of the evaluation to the appropriate authorities.

Step 3: Explain that once all of the tasks have been identified, it is necessary to prepare a work plan. Show **Transparency 4.3** and walk participants through it. Point out that a work plan is a schedule, chart or graph that summarizes various components of monitoring and evaluation systems and how they fit together. It includes the tasks to be performed, when they will be performed, who is responsible for carrying them out and how much time will be spent on each task.

Step 4: Emphasize that a work plan should be realistic and that changes can be made when the need arises. It should cover preparation, training, implementation, data analysis, reporting and dissemination of results. The realities of local customs (holidays and festivals) and working hours should be considered.

Step 5: Explain that one important aspect of planning monitoring and evaluation activities involves the preparation of a budget. Let the participants brainstorm on the budget items and costing of the activity. Distribute **Handout 4.6** which provides information on the categories to be included in a budget.

Step 6: Divide participants into four groups and ask two groups to plan the logistics, draw up a work plan (start by listing the tasks to be performed in sequence) and draft a budget for a monitoring system of a hypothetical programme or their own programme. Ask the other two groups to do likewise for an evaluation system. Allow about 45 minutes for this and then share the groups' reports in plenary.

Step 7: Summarize this session by reminding participants that their work plans should be flexible and should be changed if the need arises.

THREATS TO VALIDITY THROUGH STUDY DESIGNS

History: The effects that are not part of the project/issue of intervention as they are not planned or anticipated events. They just happen and they produce an effect that influences the study results. It is a common threat to validity in intervention studies.

Selection: Where the units in the control group differ completely from those in the experimental group. Or the self-selection of groups in surveys; the selection of the day of the study + recall.

Testing effect: Common where a pre-test is given, and tends to have effect on the post-test. Or in longitudinal surveys, where the same people are repeatedly asked the same questions over a certain time period. After a while, people begin to remember the correct answers and their responses are due to their familiarity with the questioning tool and not their actual state.

Instrumentation effect: These are effects resulting from changes in the methodology, or equipment, or the way questions are asked, such that the changes in the way the information is asked or collected (as in the case of interviewers being more experienced) result in a threat to the validity of the findings; usage of the instrument (reading of meniscus + weighing scale [zeroing]).

Maturation effect: In longitudinal studies extending for a period, people (trainers and respondents) become older, bored, hungry, wiser, discouraged, resistant, or tired over time and this may cause the first findings to be different from latter ones.

Mortality/drop-out effect: Again in longitudinal/cohort studies, differences may be due to differential loss of cases between comparison groups.

OTHERS INCLUDE:
Accuracy of the instrument (design of the questionnaire; accuracy of the equipment; recall period).

Error on the part of the enumerator: recording problems, i.e., of the wrong code for a correct response.

These threats must be carefully considered and controlled when designing research studies otherwise the effects may mar the conclusions.

TYPES OF STUDY DESIGNS

Three kinds of designs shall be discussed: experimental designs, non-experimental designs and quasi-experimental designs.

1. Experimental Designs

True Experimental Design

		Time		
	Experimental group	O_1	X	O_2
RA				
	Control group	O_3		O_4

In this design, all subjects are randomly assigned (RA) from a single population to the experimental group. Both the experimental and control groups receive an initial measurement observation (the pretests O_1 and O_3). The experimental group then receives the intervention (X) but the control group does not receive the intervention. Finally, a second set of measurement observations are made (O_2 and O_4). We would expect that, since the experimental group received a special programme intervention (X), O_2 would be greater than O_4. Also, since both the experimental and control cases were randomly assigned, we would expect that O_1 would be equal to O_3 on such key variables as age, sex, and education.

RA denotes randomization and ensures that the two study groups are equal on main baseline variables before the start of the intervention. Thus any difference observed between O_2 and O_4 are basically due to X (the intervention or the test variable). This is one of the strongest designs in controlling for the threats of validity. Randomization to intervention and control groups is sometimes impossible from a practical standard point since it may either be ethically or politically incorrect to deny one group the programme while giving it to another.

Post-test-Only Control Group Design

		Time	
	Experimental group	X	O_1
RA			
	Control group		O_2

This is also a true experimental design, except there is no baseline (pre-test) measurement observation. Since cases have been assigned randomly to the experimental and control groups, these groups are assumed to be similar before the programme intervention. This design allows the investigator to measure the effect of a

programme intervention on the experimental group by comparing that group with the controls. But it does not allow the investigator to determine the extent or magnitude of the change within the experimental group because no baseline measurement was taken.

2. Non-Experimental Designs (NEDs)

There are several non-experimental designs used by evaluators. These designs are most appropriate for collecting descriptive information or for doing small case studies of a particular situation. They are not recommended for evaluation studies that attempt to determine the effect of a programme intervention, but they may be useful in diagnostic studies to determine the reasons why a problem or a success exists.

A Post-test-Only Design

	Time	
Experimental group	X	O_1

An intervention X has already taken place for a certain duration after which measurement O_1 is made. Since a control group is not available or a pre-test measurement was not made there is no possibility of comparison. *All that measurement O_1 can do is provide descriptive information*. The threats to validity of history, maturation, selection, and mortality are not controlled and therefore are factors to consider. Multivariate data analysis techniques can be used if comparative analysis is desired.

Pre-test-Post-test Design

	Time		
Experimental group	O_1	X	O_2

In this design, there is no control group but at least there is an earlier measurement that can be used to make comparison and examine changes over time. However, the pre-test-post-test design is subject to several threats to validity including history, testing, maturation, and instrumentation.

Static-Group Comparison

	Time	
Experimental group	X	O_1
Comparison group		O_2

Unlike the other two design, this one adds a control or comparison group **BUT NO**

randomization in allocation of groups. Design can be used to compare patients in one clinic with those from another clinic on their knowledge on how to appropriately prepare weaning foods and feed children. Threats to validity are selection and mortality since there might be a difference in baseline variables and the fact that those given measurement O_1 are those who have remained in the group initially after having been given the intervention.

3. Quasi-Experimental Design

Time Series Design

These designs do not have the costly restrictions of random assignment but they tend to control for many threats to validity [a compromise between experimental and non-experimental designs].

The time series design is similar to the non-experimental pre-test-post-test design, except that it has the advantage of repeated measurement observations before and after the programme intervention (X). The multiple measurements give us a trend. The best design is when you have access to regularly collected information, such as monthly service statistics. You can plot information on a graph and note the point at which the intervention occurred. A sudden change at the time of the intervention or some time after (Action Period) is likely to be associated with the intervention. The design does not control for history and possible instrumentation threats to validity. However, it allows for a more detailed analysis of data and program impact.

Non-equivalent Group Design

	Time		
Experimental group	O_1	X	O_2
Non-equivalent comparison group	O_3		O_4

In this situation, we use two pre-tests (O_1 and O_3) to assess the extent to which the two groups were truly similar. Then we would compare the two post-tests (O_2 and O_4). We would expect that O_2 to be greater than O_4 because of the effect of the intervention. Useful in evaluation of programmes and for comparing villages and classes in school.

Separate Sample Pre-test-Post-test Design

		Time
RA	Pre-test Group	O_1 X
RA	Post-test Group	X O_2

The separate sample pre-test-post-test design is a frequently-used design in programming. It involves a baseline pre-test (O_1) with a randomly selected sample from the study population. Subsequently, a programme intervention (X) is introduced, and then a post-test (O_2) is made using a second selected sample from the same population. The design, however, does not control for history, maturation, mortality or possibly instrumentation effects.

Selecting an appropriate evaluation design can be tricky! It usually involves a careful consideration of ethical issues and a balancing of technical issues against practical and administrative issues.

Ethical issues. The first issues to consider in selecting an evaluation design are the ethical ones. If a particular evaluation design results in unethical procedures, a violation of people's rights and dignity, or a denial of services that otherwise would be available, then the design should be modified or abandoned regardless of the effect this may have on reliability, validity, time, funds, or available personnel. Indeed, if it is not possible to do an ethical study, then the study should not be done. There is no compromising on this point.

Practical and administrative issues. Most often, funds are in short supply, time is short, and personnel is few in numbers. These conditions obviously affect the choice of an evaluation design.

Technical issues. Some of the important technical issues you should keep in mind are:

- whenever possible, try to create experimental and control groups by assigning cases **randomly** from a single population study group;
- when random assignment is not possible, try to find a comparison group that is as **nearly equivalent** to the experimental group as possible;
- when neither a randomly assigned group nor a similar comparison group is available, try to use a **time series design** that can provide information on trends before and after a programme intervention;
- if a time series design cannot be used, as a minimum and before a programme starts, try to obtain **baseline (pre-test) information** that can be compared against post-programme information (a pre-test-post-test

design);

- always keep in mind the issues of validity. Are the measurements **true?** Do they do what they are supposed to do? Are there possible **threats to validity** (history, selecting, testing, maturation, mortality, or instrumentation) that might explain the results?

CHARACTERISTICS OF EXPERIMENTAL EVALUATION DESIGNS

Control groups:

Creation of a control group that shares the characteristics of the participant group permits the conclusion that any changes observed in the project group and not in the control group can be attributed to the project.

Control groups are important for demonstrating positive project effects in situations of deteriorating nutrition status, e.g., nutrition status declining even more during a drought in a control group compared to in a participating group.

Randomization to treatment:

Valid comparisons are possible when project participation is the only difference between participant and control groups and the only certain way to ensure that no differences exist between the groups is to randomly assign individuals to either participant or control groups.

Although random assignment is often an unrealistic (and sometimes unethical) choice for field-based nutrition projects, a valid comparison group can be found from a comparable area where the project has not yet begun activity. This, however, increases the possibility for error in the form of *bias* or *confounding*.

Pre/post analysis:

Baseline measurements determining the pre-intervention status for selected indicators are compared with *follow-up* measurements taken either during project implementation (for a mid-term evaluation) or upon project completion (for a summative evaluation).

Pre- and post-project information is necessary to demonstrate *if and to what extent change has occurred.* However, when measuring the magnitude of change, it cannot be assumed that pre-project information (a nutrition survey or needs assessment) can necessarily double as a baseline survey unless the data collected includes each of the relevant indicators, is geographically desegregated (project and control area are separate), and is followed immediately by the initiation of project services.

Group 1

As part of the programme to improve adolescent girls' micronutrient status through school-based interventions, a baseline will be performed to determine the causes of anaemia. The analysis costs for such an intensive study are high (e.g., blood analysis for malaria and hemoglobinapathy, stool analysis for parasites, dietary intake), and the funds available allow this comprehensive analysis among only 15 girls. One baseline will take place in one school, which has 60 adolescent girl students. What kind of sampling would you use to select the 15 girls for the anaemia aetiology study? Why?

Group 2

As part of the programme to improve adolescent girls' micronutrient status through workplace-based interventions, baseline prevalence of anaemia will be measured. Stakeholders are concerned that the intervention will not be effective among young girls (under 16 years), so assessment of the programme's effects among these young girls will be important. In the factories where the programme will intervene, 5% of the girl employees are younger than 16 years. What kind of sampling would you use to ensure that girls under 16 years are adequately represented in the analysis? Why?

Group 3

The programme intervention and comparison areas for the programme conducting growth monitoring and promotion in conjunction with food security improvements are very large, with rugged terrain and poor road communication. Additionally, population density is very low. Nonetheless, for proper evaluation of the programme's effects, a baseline assessment of household food security status is necessary from each area. How would you sample to obtain an estimate of food security status in the project and comparison areas? Why?

Group 4

In the programme addressing low birthweight, stakeholders will want to know if the reasons why women attend ante-natal care clinics change as a result of the behavioural change communication the programme will provide. A baseline assessment of women attending the clinics in the programme area and in the comparison area thus will be necessary, but survey costs will be high due to the amount of time needed to interview each woman to learn her reasons for attending. Thus it has been decided to conduct the baseline assessment on only 10% of women attending the clinics. How would you obtain a sample of 10% of women attending the ante-natal care clinics? Why?

SAMPLING PROCEDURES

RANDOM SAMPLE

Make a list of all elements (e.g. participants, beneficiaries or communities).

Number the list.

If the list contains 25 or fewer individuals/communities/elements:

> number a chit or a small piece of paper for each item in the list. Each piece should be from the same kind and colour of paper and they should all be the same size;
>
> fold all the chits in half, put them into a bowl, or hat, and mix them well;
>
> select the number of chits to be included in the sample. For instance, if the sample will contain five individuals, select five chits.

Mark the list according to the numbers on the selected chits—these individuals constitute the sample. If the list contains 25 or more individuals/communities/ elements:

> get someone to mark the list as the sample is selected;
>
> place a random number table in front of you;
>
> take a pencil in your hand, close your eyes and raise the pencil over the page, then drop the pencil to the page.

Open your eyes and read to the right of the number the pencil is pointing to, taking as many digits as necessary to count to your entire list. That is if there are between 10 and 99 items on your list, each number is a two-digit number, so read two digits. If there are between 100 and 999 items, each number in the list is a three-digit number, so read three digits.

Read out loud, in order going down the page, a random number for each element in your sample. The person assisting you should mark the list at each number you call out, as this will be an element in your sample.

If you reach the bottom of a column, move to the right according to the number of digits you are selecting and start reading downward again from the top of the column (i.e., if you are taking three digits, move three columns to the right).

After moving to the right, the table may not contain enough digits for your list—for example, only two columns of digits may be left in the table and you need three for a list of 100 to 999 items. If this happens, start again.

STRATIFIED SAMPLE

Make a list of all eligible participants.

Arrange the list according to the factor for stratification, from smallest values to highest values of the stratifying factor. The values chosen to group the stratifying factor must not overlap, and the levels must include all possible values of the stratifying factor in the population.

Decide how many individuals will be taken from each stratum. As long as there is a good likelihood that individuals in the sample will, in fact, participate in the information gathering, it is easiest to take the same proportion of individuals from each stratum. There is no rule to decide this, but some guidelines include the following:

> sample enough persons from each stratum to have meaningful and representative estimates of means and standard deviations.
>
> consider the cost of using a particular proportion—taking a high proportion to get enough individuals from a small stratum will require taking a large and possibly expensive number of individuals from a large stratum if the same proportion is used for both.

Use the methods for simple random sampling within each stratum to obtain the actual sample.

SYSTEMATIC SAMPLE WITH A RANDOM START

Obtain an estimate of the total population size.

Determine the necessary sample size (or the number represented by the sampling fraction) and divide it by the total population size. This will provide the sampling interval.

Choose a random number between 1 and the sampling interval. That is, if the sampling interval is five, choose a random number between 1 and 5.

Select participants, starting with the random number, say 3, according to the sampling interval: 3, 3+5, 3+10, 3 +15, 3+ 20, etc. until the sample size has been obtained.

BUDGET CATEGORIES

Personnel
1 team leader for evaluation
1 field supervisor per field team
field workers
expert help, such as a nutritionist, focus group moderator, statistician, etc.

Transportation
vehicle rental (1 per team)
drivers (1 per team)
fuel, oil, maintenance

Accommodation and meals
During training (meals, snacks)
During fieldwork
During analysis and report writing (if done away from home)

Monitoring and evaluation supplies (for training, fieldwork, analysis, report writing and dissemination)

Paper, notebooks, pencils, erasers	(all activities)
Photocopies	(all activities)
Flipcharts and transparencies	(training, analysis, report writing and dissemination)
Computer and printer supplies	(optional; mainly for in-house production and printing of materials)
Tape recorders and cassettes	(optional; mainly for FGDs)

Other expenses

Honoraria for field assistance	(if appropriate)
Facility costs	(if needed for dissemination workshop)
Printing summary of findings	

Administrative expenses
Secretarial and related support
Financial support
Overhead allowance

EVALUATION DESIGNS

ON-GOING PROJECT EVALUATION

- Done while the programme is still in progress.
- Enables management to make decisions on the future of the programme: to continue as planned/be revised and adjusted/be discontinued?

END OF PROJECT EVALUATION

- Carried out at the end of the implementation phase.
- Provides information which can be used in the formulation of policies and/or planning of new and future programmes.

IMPACT EVALUATION

- Done some time after completion of a programme.
- Provides valuable information on programme sustainability, effectiveness and impact.

SPOT CHECK EVALUATION

- Is a brief ad hoc evaluation done because of an urgent need during programme implementation.
- Enables specific decisions to be made regarding the programme.
- Provides a quick realistic picture of programme status as part of the accountability process.
- Can enable quick implementation of corrective measures.

DESK EVALUATIONS

- Evaluations that do not involve field visits but depend largely on secondary sources for information.
- They are either internal or external evaluations.

SELF EVALUATIONS

- Internal evaluations done by programme personnel or implementors.
- Largely uses secondary sources of information.
- They are shallower and less objective than in-depth evaluations.
- Mainly used in small programmes.
- They assist programme personnel to reflect on implementation against the stated objectives and assumptions.

PROGRAMME COMPONENTS

INPUTS	ASSUMPTIONS	OUTPUTS	ASSUMPTIONS	OUTCOMES	ASSUMPTIONS	IMPACT

TRANSPARENCY 4.3

WORK PLAN

Tasks to be performed	Who is responsible	When	Where	Resources required	Remarks

UNIT 5 DATA COLLECTION

PURPOSE OF THE UNIT

This unit describes various methods of data collection and helps participants to distinguish between qualitative and quantitative methods of data collection. The unit also assists participants to identify the key issues in designing data collection instruments and their administration.

OBJECTIVES

By the end of this unit, participants should be able to:

- determine which data collection methods to use during monitoring and evaluation;
- describe the characteristics of various data collection methods;
- design data collection instruments;
- identify key issues in the administration of data collection instruments.

UNIT OVERVIEW

Session 1: Quantitative and Qualitative Methods of Data Collection (150 minutes)

Session 2: Designing Data Collection Instruments (120 minutes)

Session 3: Administration of Data Collection Instruments (60 minutes)

TIME

5 hours

ADVANCE PREPARATION

Photocopy handouts and prepare overhead transparencies**.**

Handouts:

5.1 Methods of Data Collection
5.2 Focus Group Discussions and Interviews

Transparencies:

5.1 Types of Questions

Materials: cards, flipchart, masking tape, pens, markers, transparencies, overhead projector, transparency pens

PROCEDURE

Session 1 Quantitative and Qualitative Methods of Data Collection . . . . . 150 minutes

Step 1: Start this session by showing the objectives of the unit and explain where we are in the steps or process of monitoring and evaluation. Give a brief overview of the unit.

Step 2: Put two cards on the wall, on one written Quantitative Methods and on the other written Qualitative Methods. Give participants cards and ask one group to write as many different quantitative methods as they can and the other group to write the qualitative methods they know. Process this information. Make sure the following comes out:

Quantitative Methods	Qualitative Methods
Administering oral or written interviews	Focus group discussion
Reviewing project documents and reports	Observing
Population-based surveys	Interviewing
Reviewing medical and financial records	Ethnographic survey
Completing forms and tally sheets	Time lines
Direct measurement (chemical analysis)	Social mapping
Observing	Case studies
Lot quality assessment	Content analysis

Step 3: Explain to participants that qualitative data is in the form of words, such as description of events, transcripts of interviews, life stories and written documents. On the other hand, quantitative data come in numbers and provide answers to questions such as how much, to what extent and how many.

Emphasize the point that both kinds of data are usually needed in both monitoring and evaluation and each supports and is complementary to the other. Point out that it is possible to do a quantitative analysis on qualitative data, e.g., 70% of the key informants agreed with this.

Step 4: Ask participants what they understand about any three quantitative and qualitative methods such as:

Reviewing documents	Focus group discussion
Surveys	Interviews
Direct measure	Mapping

Step 5: Divide participants into four groups: monitoring, mid-term evaluation,

summative evaluation, and process evaluation. Ask participants to determine when it would be appropriate to use either quantitative or qualitative methods and which ones.

Refer participants to **Handout 1.1** and ask them for each of the questions that monitoring or evaluation tries to answer, which method should they use to collect the data which answers these questions. Allow 30 minutes for this activity and then share their responses in plenary.

Remind participants that it is important to use a combination of different data collection techniques during monitoring and/or evaluation. This will help to maximize the quality of data collected and reduce the chance of bias. Conclude this session by distributing **Handout 5.1** on some methods of data collection.

Session 2 Designing Data Collection Instruments . . . . . 120 minutes

Step 1: Ask participants to identify which data collection instruments they would use for various data collection techniques. The following should come out:

Questionnaire
Interview schedule
Observation checklist
Focus group discussion guidelines

For each instrument they mention, ask for the strengths and limitations of using each one under different conditions.

Step 2: Tell participants that to develop good questions for any instrument, they need to consider all of the following:

the objectives of the study;
the information they need from the indicators that have been previously identified;
the sub-questions that answer the evaluation questions;
the wording or phrasing of the questions.

Step 3: Tell participants there are three types of questions: open-ended (unstructured), close-ended (structured) and semi-structured. Ask them what they understand by these terms and write their responses on the flipchart. Divide participants into 3 groups and assign one type of question to each group and ask them to do the following:

Advantages and limitations of each type;
Examples of that type of question.

Allow 10 minutes for this activity and share their responses in plenary. Show **Transparency 5.1** with the advantages and limitations of different types of questions and compare participants' responses with the ones on the transparency.

Step 4: Ask participants to identify characteristics of a poor data collection instrument. The following points should come out:

The instrument is too long
It is inappropriate for the target group
Vague or leading questions
Irrelevant questions
It measures more than one idea per question
It is not user/gender-friendly

Not well-formatted

Step 5: Ask participants to explain what steps they should follow in designing a questionnaire or a focus group discussion guide. The following points should come out:

Think about the content—use your objectives and indicators as a starting point

Formulate questions

Formulate one or more questions that will provide information needed for each indicator

Check whether each question measures one thing at a time

Avoid leading questions

Formulate control questions to cross check responses on difficult questions

Avoid words with double or vaguely defined meanings and emotionally leading words

Sequence the questions

user/respondent friendly, simple language and make the questionnaire as short as possible

Include an introduction and identifying information for each instrument

Format the questionnaire—layout, spacing, instructions, paging, coding

Translate if necessary

Step 6: Ask participants what comes to their minds when they see the words "Data Coding." Make sure the following points come out:

A code is a tag or identifier given to responses of both closed- and open-ended questions.

Codes are often given numeric values such as 1 for male and 2 for female. Alternatively, M could be used for male and F for female.

Each code should be specific to that question and remains the same for all respondents for that question. It is essential, both for data entry and interpretation, that codes are kept consistent throughout the data collection instrument and for the set of collection instruments. For example, if yes = 1 and no = 2 for question number 1 then yes should = 1 for all remaining questions and in other instruments.

The meaning of all codes should be recorded in a single place such as a data coding book. Always have a backup copy.

Step 7: Explain to participants that once the instrument has been developed, there is a need to pre-test and possibly translate it. The purpose is to identify any problems or weaknesses in the instrument or in the wording. It should be tested in a population similar to that of the programme and under similar field conditions. Pre-testing evaluates the following:

The level of understanding of questions/wording by respondent;

Language or dialect;

The ease with which the instrument is administered;

Adequacy of instructions for the interviewer and of the training;

Sensitive questions for either interviewer or respondent;

Adequacy of recording space for open-ended questions;

Length of time.

After pre-testing, finalize the instrument and prepare for training and administration of the instrument.

Step 8: In conclusion, point out that once the data has been coded, it needs to be put into a format that makes analysis possible.

Session 3 Administration of Data Collection Instruments . . . . . 60 minutes

Step 1: Start this session by explaining to participants that once the instruments have been developed, pre-tested and revised, they are ready to be administered. Remind participants of the data collection methods that can be used, but note that during this session, only two of the most commonly used methods will be discussed in detail, namely interviews and focus group discussions.

Step 2: Divide participants into two groups—the focus group discussion group and the interview group. Ask participants to answer the following questions:

> What are the steps involved in conducting a focus group discussion/interview?
>
> Who is involved in conducting a focus group discussion/interview and what skills do they need? What are their roles?
>
> What training is required for someone who needs to conduct a focus group discussion/interview?
>
> How would an interviewer or a person conducting a focus group discussion identify data collection bias and how can it be prevented?

Allow 30 minutes for this activity and share their responses in plenary.

Step 3: Ask participants how they can make interviews less threatening. The following points should come out:

- being culturally sensitive (do not do something culturally unacceptable or embarrassing)
- being gender sensitive (for example, it may be improper for a man to interview a married woman on his own in certain cultures)

Remind participants that if they need to write answers on a questionnaire or use a tape recorder during an interview or focus group discussion, they should first explain this to the respondents and ask for permission to do so.

Furthermore, people are usually uncomfortable in giving personal details to strangers. It is necessary to use local people or be accompanied by someone who is well-known and respected in the community while assuring respondents about confidentiality.

Finally, remind participants to avoid lengthy interviews which can induce interviewee fatigue.

Step 4: Ask participants to change groups and tell one group to plan a role-play using a focus group discussion on attitudes of the community towards exclusive breast-feeding, and the other an interview on assessing weaning practices of children under one year. Allow 15 minutes for the preparation and five minutes for each role-play. After the role-play ask the group the following questions:

What did you see in this play?

Was the method correctly presented?

What could have been improved?

Distribute **Handout 5.2** on Focus Group Discussions and Interviews. Tell participants to read it during their free time.

Step 5: Conclude this session by reminding participants of the need to carefully organize the logistics that accompany the administration of data collection.

Methods of Data Collection

1. **Records:** An advantage of monitoring and evaluating nutrition programmes is that much of the data desired is routinely collected as part of programme operations. Records consist of anthropometric data, information on the incidence and severity of micronutrient deficiencies and malnutrition, and project participation rates, which are all examples of information routinely collected in nutrition projects, and the core of an ongoing monitoring system. It should be noted that information from records may be reviewed periodically. For example, clinic records have test results of those participants who are suspected of having anaemia. A periodic review of these records may offer information on the incidence of iron deficiency. Other records may be reviewed regularly, for example, children's malnutrition status.

   Another type of record is secondary data, i.e., statistics and information originally collected for purposes other than the project. The most useful types of secondary data for nutrition projects are national or regional surveys of nutritional status, dietary intake, micro-nutrient deficiencies, and household income and expenditure. Such information is often available from government offices, donor agencies, NGOs, or research institutions.

   While using records can be a fast, inexpensive, and convenient way to obtain information, it requires a careful inspection of the original collection process, keeping in mind that the validity and reliability of the present findings will rest upon the quality of another's collection methods.

   In examining the project conceptual framework and the indicators selected, an initial step is to determine which of these indicators will be available, or can be calculated from records. It will then be necessary to make choices about optimal data collection methods for the remaining indicators from the other methods presented below.

2. **Surveys:** Surveys can cover an entire project population or a representative sample. They can include open- or closed-ended questions. Open-ended questions allow respondents to answer in their own words while closed-ended questions require specific answers or selection from a set of possible answers.

   Survey data that is derived from open-ended questions, can give both quantitative and qualitative data. Surveys are a very popular method of collecting data and the reliability of such data depends on the sampling frame, quality of questions and care taken in administering the questionnaire.

3. **Direct Measurements:** Direct measurements are usually necessary to ascertain changes in nutrition status resulting from a project. They often are included in surveys and, when used programmatically, are likely to be included in project records. A number of specific methods are often employed in direct measurements and these include the following:

   Anthropometry: ht/age, wt/age, wt/ht, BMI
   Biochemical indices: blood analysis, urine, and breast milk
   Clinical signs of micronutrient deficiencies, i.e., goitre and night blindness

   Direct measurements can be influenced by precision, e.g., periodic calibration of scales for anthropometric measurements is necessary.

4. **Observation:** Observations are one method used to assess time-use patterns and behaviours related to desired outcomes. Observation can also offer valuable insights into the social and physical context of the problem being addressed and the use of project inputs. The "observer" needs to develop a good relationship with the observed, if possible, by spending time living with the observed, so that the observed are no longer conscious of the observer's physical presence. When this happens, the process is called participatory observation. It is desirable but rarely achieved.

5. **Key Informant Interviews and Focus Group Discussions:** A key informant interview involves a face-to-face meeting between a trained interviewer and a person who can provide an overview/big picture of knowledge, attitudes or practices of the group being monitored or evaluated, i.e., target population. They may be part of the target population (e.g., project staff, mothers, school children, or mothers-in-law) but not necessarily so (e.g., a medical specialist presenting views on a community's disease patterns). Key informants provide a broad view of the situation and this overview is critical in data collection.
   Similarly a focus group discussion involves group dynamics that allow participants to respond to one another's perceptions, generating new ideas and highlighting conflicting attitudes that might otherwise be inaccessible to an outsider.

   Focus group discussions should be held with small groups of people who have similar characteristics, e.g., mothers of small children, parents of teenagers, and they should be led by a moderator/facilitator who uses a question guide to introduce topics of interest. In focus group discussions:

   - the flow of discussion creates an environment to probe deeply into beliefs and concepts about a particular subject. Creating such an ideal environment requires appropriate settings for interaction between the interviewer and stakeholder(s) without distractions.
   - the deliberations of the discussion should either be tape recorded or written down by a recorder. However, moderators/facilitators must

always discuss tape recording and note-taking with participants, making sure that there is agreement. It should be remembered that tape recording and note-taking are very intimidating to participants. Therefore, there must be specific and general acceptance by the participants.

Key informant interviews and focus groups with stakeholders are among the fastest and least expensive of data collection techniques. These techniques are particularly effective for projects that attempt to change behaviours such as nutrition communication campaigns.

Focus group participants and key informants should represent the entire range of stakeholders in order to yield clear and candid insights.

Although key informant interviews and focus groups can provide important contextual information, certain difficulties should be anticipated:

- Open-ended questions are difficult to code and analyse but can provide valuable information which cannot be provided by any other method.
- It is not always possible to compare the information within and between projects statistically because there are no standard response categories. However, qualitative comparisons such as perceived effectiveness or likely sustainability can still be made.
- Interviewers and moderators need to be experienced staff who are capable of probing with follow-up questions for answers and eliciting and recording adequately detailed information.

FOCUS GROUP DISCUSSIONS AND INTERVIEWS

FOCUS GROUP DISCUSSIONS

Focus group discussions (FGDs) are a qualitative method designed to use group dynamics and the flow of discussion to probe deeply into the images, beliefs, and concepts that people have about a particular subject. Ideally, people become involved in the discussion and react to one another's comments. It is not a group interview but a group discussion focussed on a topic. These guided discussions are held with small groups of people who have similar characteristics. For example, hold discussions with a group of low-income fathers, with mothers of children under two years, or with traditional healers. The discussions are led by a trained moderator who uses a question guide to introduce the topics of interest and probe for deeper discussion.

Focus group discussions can be used to:

- focus the evaluation and develop relevant evaluation questions by exploring in greater depth the problem to be investigated and its possible causes;
- formulate appropriate questions for more structured larger-scale surveys;
- supplement information on community knowledge, beliefs, attitudes and behaviour already available but incomplete or unclear;
- develop appropriate messages for health education programmes;
- explore controversial topics and issues.

Focus group discussions (FGDs) provide valuable information when they are properly planned and executed. The following points should be considered when planning for a focus group discussion:

- it is important to prepare a set of written guidelines on the objectives and how to conduct the FGDs. There should be a written list of topics to be covered. It is formulated as a series of open-ended questions;
- the seating arrangements should facilitate communication. Arrange the respondents so that they sit in a circle and encourage respondents to interact and express their views freely;
- there should be a maximum of 8 -10 persons per focus group;

- plan to conduct a focus group discussion for no more than an hour and a half.

Members of the evaluation team who know how to conduct the focus group discussion should do so. One person should serve as the facilitator and the other as a recorder. The facilitator should stimulate and support the discussion. The recorder should keep a record of the content of the discussion and note the reaction and interaction within the group. The recorder may also use a tape recorder/player if the group allows. Items to be recorded include:

- date, time and venue;
- names and characteristics of respondents;
- description of the group's dynamics;
- opinion of the comments recorded;
- vocabulary and language use.

The following are the functions of the facilitator:

- introduce the session;
- encourage discussion;
- encourage involvement;
- build rapport and empathize;
- avoid being placed in the role of expert;
- control the rhythm of the meeting, but in an unobtrusive way;
- take time at the end of the meeting to summarize, check for agreement and thank the participants.

Following the discussion, the facilitator and recorder should sit together to review and complete the notes taken during the discussion.

INTERVIEWING

An interview is a data collection method that involves oral questioning of respondents, either individually or as a group. It is suitable for use with illiterate people. It also permits clarification of questions through probing. Interviews are probably the most commonly used evaluation method.

Good interviewers should have the following skills and characteristics:

- friendly and warm;
- hardworking and reliable;
- able to speak the local language;
- able to ask questions in a neutral way.

To enable interviewers to develop these skills and characteristics they need to be trained on all of the following:

- how to put the interviewee at ease;
- how to raise sensitive issues;
- how to probe;
- how to accurately record responses, particularly for open-ended questions;
- how to edit and check for errors and omissions.

Role-plays are an effective method that should be used during the training. Evaluators should supervise interviewers in order to ensure quality data from interviews.

ADVANTAGES AND LIMITATIONS OF DIFFERENT TYPES OF QUESTIONS

1. Closed-ended structured questions

Advantages:
- easy to administer in the field and work with in the analysis
- easy to code with a number
- answer can be shown by making a mark against the code that corresponds to the answer
- pre-coding makes the task of tabulating or data entry simpler
- useful for collecting factual information or when the full range of possibilities is already known

Limitations:
- does not allow respondents to answer in his/her own words

2. Open-ended (unstructured) questions

Advantages:
- useful when full range of responses is unknown or when great range of possible answers is expected
- provides a special depth of response

Limitations:
- time consuming in the field as all respondent's words must be recorded
- space consuming in the questionnaire
- difficult to code and tabulate (responses must be grouped, categorized and coded for analysis)

3. Semi-structured questions (field coded)

Advantages:
- useful when the code categories are known in advance
- gives the respondent more freedom
- easy to tabulate since they are pre-coded

Limitations:	difficult to administer since interviewer must make an on-the-spot decision on how to categorize a free response detail or the free response is lost.

UNIT 6 DATA ANALYSIS AND INTERPRETATION

PURPOSE OF THE UNIT

The purpose of this unit is to explain how to prepare data for analysis. Participants also learn how to analyse quantitative and qualitative data, and interpret the results. In addition, the unit explains how to present the results of analysis in a meaningful and useful way.

OBJECTIVES

By the end of this unit, participants should be able to:

- explain how to prepare data for analysis;
- analyse qualitative and quantitative data;
- interpret quantitative and qualitative data;
- present data using appropriate formats.

UNIT OVERVIEW

Session 1: Preparing the Data for Analysis (90 minutes)

Session 2: Analysing Qualitative Data (60 minutes)

Session 3: Analysing Quantitative Data (120 minutes)

Session 4: Interpretation of M&E Data/Information (90 minutes)

Session 5: Data Presentation (45 minutes)

TIME

6 hours 45 minutes

ADVANCE PREPARATION

Before the session, prepare a sample questionnaire or data collection form based on the data collected in the field or on some programme data that already exists. Ensure that at least 10 forms are completely filled out. Put some illustrative codes for numerical fields (e.g., 88=refused; 99=missing) on the questionnaire/form, and make check boxes for categorical data. Make a transparency of a blank form (**Transparency 6.1**).

Prepare and photocopy handouts and make the transparencies.

Ensure all materials are available.

Handouts:

6.1 Qualitative Data Analysis
6.2 Definitions of Descriptive Statistics
6.3 Types of Data
6.4 Data Summary
6.5 Formats for Presenting Qualitative Data

Transparencies:

6.1 Data Matrix Example and Blank
6.2 Sample Computer File
6.3 Cleaning Data
6.4 Definitions of Descriptive Statistics
6.5 Types of Data
6.6 World Bank Table
6.7 World Bank Table 2
6.8 Table on Iodized Salt Use at Household and Presence of Iodine
6.9 Intake of Dark Green Leafy Vegetables by Pregnant Women
6.10 Mean Women's BMI by Age at Follow-up
6.11 Mean Women's BMI by Age at Follow-up
6.12 Prevalence of Severe and Moderate Malnutrition at Baseline and Follow-up
6.13 Prevalence of Malnutrition (weight/age) at Baseline and Follow-up
6.14 Pie Chart

Materials: cards, flipchart, masking tape, pens, markers, transparencies, overhead projector, transparency pens

PROCEDURE

Session 1 Preparing the Data for Analysis . . . . . 60 minutes

Step 1: Start this session by presenting the objectives of the unit and by giving a brief overview of what the unit is about. Remind participants where we are in the monitoring/evaluation process.

Ask participants to identify what needs to be done with all the data that has been collected during monitoring and/or evaluation. As participants offer their suggestions, write each one on a VIPP card and place them on the board in chronological order. After receiving all responses put up the following 4 cards at the right places between:

- Data/Information Preparation
- Data/Information Analysis
- Interpretation of the Findings
- Presentation of the Findings

Tell participants that during this session they are going to look at preparing the data for analysis, with special emphasis on data entry and cleaning.

Step 2: Ask participants to brainstorm on the techniques and methods they know or use to prepare data for analysis. Have a co-facilitator write these on a flipchart and cluster these into “electronic” and “manual” categories.

Step 3: Point out that we will first discuss manual methods of data preparation. If data have been collected as part of a field trip, work through the process of creating a matrix based on individual questionnaires or data sheets. If there is no data available from a field trip, then use data that has been prepared from an on-going programme. **(Refer to Advance Preparation on page 6.1)**.

Display **Transparency 6.1** and, while referring to it, create the matrix on two sheets of flipchart paper (side by side). Demonstrate its use by transferring data from the first questionnaire or sheet to the matrix. As the matrix is being constructed, ask participants to identify the qualities of a matrix. The following points should come out:

The matrix has a unique identifier (e.g., questionnaire number, household number, or participant number) for each row.

A separate column is used to record each possible value of a question with checked categories.

The columns contain, among other things, the indicators collected from the evaluation/monitoring.

Each column has a unique "variable name."

The same units of measurement are used for all records, for all participants.

Pass out the 10 completed questionnaires/forms, and ask participants to come, one by one, to enter their data into the matrix from their questionnaires or forms. After the participants have completed adding their records to the matrix, refer again to **Transparency 6.1** and discuss the following:

Explain that there are other ways to record questions with categories (use of codes rather than "x" in each category). Ask participants if they know the reasons for using codes like "88=refused" and "99=unknown." Point out that refusal or not knowing are information, and information about refusal or inability to respond is lost without special codes; blank cells in the matrix may be misunderstood as mistakes during later inspection of the data, unnecessarily requiring re-checking of the original forms.

Explain that the data on the matrix can be used to do manual calculations, where individual observations are listed by an identifier in the column at the top of the matrix, and values for individual variables (pieces of information for analysis) are recorded in the rows of the matrix. Using the data on the matrix, calculate some simple summary statistics such as the mean and frequency.

Step 4: Ask participants to share other types of manual methods they have used to prepare and organize data for analysis. Have the participants write these on a flipchart. Ask them to detail how they checked or "cleaned" the data when using manual methods.

Step 5: Ask participants to describe what computer-based methods they know of or use for preparing data for analysis. Ask participants to share any problems they have had when using computers to prepare data for computer analysis, and ask what they would do differently in the future. Point out that the choice of manual or computer methods depends on several factors:

availability of computers
facilities to protect computers
amount of data

type of data

Step 6: Ask participants to share why they chose a particular programme or method and to summarize its advantages and disadvantages. The following points should also be mentioned:

- programmes that check for allowable values are best;
- programmes that automatically move from variable to variable within a record are easiest and safest.

Step 7: Display **Transparency 6.2** (flat file) and point out that most programmes create a file that cannot be understood visually without software to organize it into a table. Discuss creation of variable names during entry and define a variable as a measure whose values vary between observations.

Step 8: Ask participants what the next step in computerized data preparation is after the data are entered into the computer (data cleaning). Ask them what they do to clean data in their programmes, and write their responses on a flipchart. Summarize using **Transparency 6.3**, and ask for examples of logical checks they make when examining data.

Step 9: Ask participants why it is important to clean data. Ensure that the need to avoid bad data in order to avoid bad conclusions is mentioned. Ask participants to share how they decide whether data are "bad" or just "outliers." The following points should come out:

Obviously bad data (impossible values) can be thrown out, but only after making every attempt to get a valid value by checking the original data sheet.

Possible values that are very different than all other values may be important to keep in order to maintain the representativeness of the sample (review the concept of representative sampling).

If only one observation is very different than the others, removal is okay, but it is a good idea to perform analysis both with and without that observation to see if its removal provides greatly different results.

If several "outliers" exist, consult a statistician for advice on how to deal with them.

Step 10: Summarize the session by reviewing that both manual and computerized

methods can be used to prepare data for analysis, and, once the data have been checked to ensure that all values are valid, the data are ready for analysis to provide useful information about the programme.

Session 2 Analysing Qualitative Data . . . . 60 minutes

Step 1: Remind participants what qualitative data is. Ask which data collection instruments can be used to collect qualitative data.

Step 2: Ask participants what steps they would take to analyse qualitative data. The following points should come out:

transcribe all interviews/observations

look for and code key words and phrases that are similar in meaning

categorize issues by topics

compare responses from different groups

determine patterns and trends in the responses from different groups or individual respondents

make summary statements of the patterns or trends and responses

cite key quotations, statements and phrases from respondents to give added meaning to the text

re-check with key informants to verify the responses and the generalization of the findings.

Step 3: Distribute **Handout 6.1** on qualitative data analysis and discuss it with participants. Answer any questions they may have.

Step 4: Explain to participants that once the data has been analysed they need to write a full report that reflects the discussion as completely as possible, using the respondents' own words.

Session 3 Analysing Quantitative Data . . . . . 120 minutes

Step 1: Ask participants to define the term “quantitative.”

Step 2: Explain that the first thing we need to do to analyse quantitative data is to convert *raw data* into useful summaries. Introduce three types of summaries, putting up a card for each:

Descriptive measures: proportions, frequencies, and ratios;
Measures of central tendency: mean/average, median, mode;
Measures of dispersion: range, standard deviation, percentiles.

Distribute **Handout 6.2** which provides definitions of each of the data summaries.

Step 3: Display **Transparency 6.4** (same as **Handout 6.2**) and discuss the definitions of the items in each category. Work though the following examples of each:

- **Descriptive measures:**

Proportion, frequency, and ratio of male and female participants. Introduce “cost-effectiveness ratio” and “cost-delivery ratio” as two important types of ratios.

Frequency distribution (use counts from current participants):

Sex	Count	Relative frequency (percent)
Male	8	40
Female	12	60
Total	20	100

Ratio: Males = 8, Females = 12; Ratio of males to females = 8/12 or 0.67

- **Measures of central tendency:**

1,2,3,4,5,6,7,8,9: Mean=5; Median=5
1,2,3,4,5,6,7,8,9,155: Mean=20; Median=5.5 (ask participants which summary is more affected by extreme values)

C **Measures of dispersion:**

A child's weight for age is given as a percentile score of 20% of standard. What does that mean? (20% of healthy children have a weight for age the same or lower than this child; 80% of healthy children have a higher weight for age). Does this tell us anything about what percentage of other children in the sample have higher or lower weight for age?

Step 4: Distribute **Handout 6.3** and display **Transparency 6.5**. Divide participants and facilitators into four groups.

Group 1: Numeric Data, Discrete
Group 2: Numeric Data, Continuous
Group 3: Non-numeric Data, Nominal
Group 4: Non-numeric Data, Ordinal

Write the following instructions on a flipchart or overhead sheet:

For each of the data summaries described in **Handout 6.3**, decide whether or not this summary is appropriate for your type of data. Explain why or why not.

If the summary is appropriate, explain its limitations.

Step 5: During plenary, discuss relationships between different types of data and different situations in which some summaries are and are not meaningful for different types of data. Emphasize those summaries that are never appropriate for non-numeric data.

Distribute **Handout 6.4** (matrix of summary/statistic use for different types of data).

Session 4 Interpretation of M&E Data/Information . . . . . 90 minutes

Step 1: Explain to participants that once we produce summaries of the data through analysis, we need to interpret the results we obtain. Ask participants what tools we use to interpret data and ensure that the following points come out:

Logic
Knowledge of the programme
Knowledge of nutrition, health, other programmes
Experience

Step 2: Explain to participants that experience is the best teacher, so we are going to interpret some examples together so that we can get a sense of the process of interpreting results. Divide participants into 3 groups and provide each group with one of the following scenarios to interpret. Allow 30 minutes for interpretation.

Scenario 1: Interpretation of Qualitative Analysis Results

You have just completed the analysis of baseline data for a program with the **goal of promoting improved feeding practices among young children**. One **objective** of the data collection was to **describe mothers' introduction of soft baby foods to their youngest child in the programme area**.

The **method of data collection** is **qualitative using two focus group discussions among young mothers (20-30 years old) and two focus group discussions among older mothers (> 45 years)**.

You obtained the following results (G1=focus group 1; G2=focus group 2)

Young Mothers

Focus Group	Age at introduction of soft food	Type of foods first introduced	Frequency of feeding/day
G1	Range 4-7 months	< soft porridge < soft porridge sometimes with groundnuts < soaked biscuits	1-2 depending on availability of the mother
G2	Mean 6 months	< soft porridge with sugar < mashed potatoes < mashed fruits	1-2 depending on availability of the mother/caretaker and the appetite of the child

Older Mothers

Focus Group	Age at introduction of soft food	Type of foods first introduced	Frequency of feeding/day
G1	Range 5-11 months	< soft porridge < soft fruits	1-2 depending on food availability
G2	Mean 8.5 months	< soft porridge < soft fruits	1-2 depending on food availability, availability of mother/caretaker, age of child, and whether child is sick

Summarize the information from the four focus group discussions, and make conclusions on the findings given the specific baseline objective.

Scenario 2: Interpretation of Quantitative Analysis Results

You have just completed analysis of baseline and follow-up data from a program with the **goal of reducing under-5 child mortality**. Two of the programme's **objectives** were to **reduce severe malnutrition** (weight/age) and, since the number of deaths due to moderate malnutrition is greater than those due to severe malnutrition, to **reduce moderate malnutrition** (weight/age).

The method of data collection was quantitative. **At baseline and at follow-up, weights were measured for a representative random sample of children in the programme and comparison areas using the same methodology for all assessments.** The findings of your analysis are presented below.

Baseline and follow-up data for children with severe and moderate malnutrition in the programme

Assessment	**Programme**		**Comparison**	
	Severe	Moderate	Severe	Moderate
Baseline	13.2	30.0	12.6	31.0
Follow-up	6.2	37.5	16.2	30.5

Summarize your results and make specific conclusions based on the programme's objectives for severe and moderate malnutrition. Recommend future action.

Scenario 3: Interpretation of Quantitative Evaluation Results

You have been asked to help an NGO evaluate the effects of their home gardening intervention in Jadini Division of Ocean District. The **goal** of their programme is to reduce vitamin A deficiency among pregnant women, and one of their objectives is **to increase the consumption of dark green leafy vegetables (DGLV) in their programme area**.

The NGO's intervention has been to extend home gardening at the beginning of the vegetable growing season, which starts with planting in November, throughout the country. Prior to planting, they established a vegetable seed distribution network and posted extension workers who train women's groups in vegetable cultivation and provide nutrition education.

The method of data collection was quantitative. To evaluate their intervention, the NGO has conducted **bi-monthly dietary assessment among pregnant women to determine their daily DGLV intake in grams starting three months prior to**

vegetable planting time and continuing until the present. To provide a **comparison population**, they conducted **identical dietary assessment** in Africana Division of Mountain District, where they have another programme that provides nutrition education for consumption of DGLV but no home gardening inputs. They have provided you with the following data for conducting your evaluation.

Mean dark green leafy vegetable intake by pregnant women, Jadini Division of Ocean District and Africana Division of Mountain District, 1997-1998

Area	Aug	Oct	Dec	Feb	Apr	Jun
	--grams--					
Jadini Division, Ocean District (Home Gardening and Nutrition Education Intervention)	10.2	10.5	30.6	30.3	25.2	18.7
Africana Division, Mountain District (Nutrition Education Intervention)	10.1	10.6	20.4	18.7	13.8	10.4

Summarize your findings based on the NGO's objectives for increasing DGLV consumption among pregnant women. Recommend future action.

Step 3: Conclude this session by asking participants if they have any further questions about qualitative or quantitative data analysis.

Session 5 Data Presentation . . . . . 60 minutes

Step 1: Introduce this session by reminding participants that we have 1) prepared our data for analysis by organizing it into a usable form and by cleaning it to ensure quality, 2) analysed the data to summarize our findings, and 3) interpreted the findings.

The next step is to present the data in a meaningful way that will support the conclusions and recommendations we will include in our report.

Step 2: Ask participants to brainstorm about the important factors to consider when presenting our findings and interpretation. Record their suggestions on a flipchart. The following points should come out:

easy to understand;
appropriate for the audience;
appropriate for the data;
supports the point we wish to convey.

Step 3: Ask participants what formats they would use to present qualitative data to support their interpretations. The following formats should be mentioned:

matrices
diagrams
taxonomies
decision charts
narrative descriptions
a list of quotations and key phrases
figures
case studies

Refer back to the flipchart summarizing important factors to consider when presenting findings and remind participants that these factors apply to qualitative results as well as quantitative results.

Distribute **Handout 6.5** on formats for presenting qualitative data and ask participants to read through it. Answer any questions they have about formats for presenting qualitative data.

Step 4: Ask participants how they would present quantitative data to support their interpretations.

Step 5: Review the use of tables for presenting quantitative data. Remind participants about the need to use tables for presenting a clear message.

Display **Transparency 6.6** which shows a table with too much information. Ask how it can be improved to bring out the issue of deaths related to malnutrition. Then display **Transparency 6.7** and ask participants to give a title for the table. Write it on the transparency.

Display **Transparency 6.8**, showing the top table first as a presentation of the data as they were summarized from the questionnaire. Then show the centre table which emphasizes reported practices and, finally, the bottom table which shows the actual use of iodized salt. Emphasize:

- the use of highlighting effects or factors of interest;
- the simplicity of presentation;
- the limitations of tables for use with community groups;
- the need for clear and descriptive titles;
- the need to present all information in the table to enable readers to make their own calculations.

Step 6: Review the use of line graphs and how they can be used to present a clear message. Display **Transparency 6.9** which shows a line graph that emphasizes trends related to intake of dark green leafy vegetables by pregnant women. (This transparency shows data from Scenario 3).

Ask participants how this graph could be altered for use with community groups. They should mention the use of pictures for planting, harvesting, and other events.

Display **Transparency 6.10** which shows a line graph using a numerical scale but cross sectional data (and multiple lines).

Display **Transparency 6.11** which shows a line graph but has too large a scale on the Y-axis. Discuss the:

- need for a meaningful scale on the Y-axis to improve understanding, so that it is not misleading;
- use of time scale on the X-axis that shows trends;
- use of pictures to highlight time events that can facilitate presentation with community groups;
- importance of axis labelling.

Step 7: Review the use of bar charts to present a clear message. Display **Transparencies 6.12 and 6.13** and discuss the different message each emphasizes. (These transparencies show data from Scenario 2. One transparency emphasizes changes in malnutrition status within the programme and control, while the other emphasizes comparisons between programme and control for each category of malnutrition). Emphasize the following:

- pairing of bars to emphasize particular results;
- comparison with same data presented by line graph.

Step 8: Review the use of pie charts to present a clear message. Display **Transparency 6.14** (from Scenario 2). Discuss the following points:

- pie charts provide visual summaries of the relationship of parts to a whole (e.g., severe malnutrition in relation to overall nutritional status);
- “exploding” a pie segment provides emphasis;
- as the number of categories increases, pie charts become less useful.

Step 9: Summarize the session by reviewing the steps from data collection to reporting. Answer any questions participants may have about data presentation.

QUALITATIVE DATA ANALYSIS

Qualitative data may be collected through open-ended questions in self-administered questionnaires, individual interviews, focus group discussions, or through observations during fieldwork. Data requested in open-ended questions include respondents' opinions on a certain issue, reasons for a certain behaviour and description of certain procedures, practices or beliefs/knowledge with which the evaluator is not familiar.

The data can be analysed in three steps:

1. List the data for each question. Take care to include the source for each item you list so that you can place it in the original context if required. How you will categorize qualitative data depends on the type of data requested.

In the case of data on opinions and reasons, there may be a limited number of possibilities. Opinions may range from very positive to neutral to very negative. Data on reasons may require different categories depending on the topic and the purpose of the question.

2. To establish your categories, first read through the whole list of answers. Then start giving codes for the answers that you think belong together.

3. Next, try to find a label for each category. After some shuffling you usually end up with 4 to 6 categories. You should enter these categories on the questionnaire and on the master sheet.

If you categorize your responses to open-ended questions in this way you can:

> report the percentage of respondents giving reasons or opinions that fall in each category;
>
> analyse the content of each answer given in particular categories, to plan what actions should be taken.

Questions that ask for descriptions of procedures, practices, beliefs/knowledge are usually not meant to be quantified although you may quantify certain aspects of them. The answers rather form part of a puzzle that you have to put together carefully. When you are analysing questions of this type you may find it useful to list and categorize responses.

The analysis of information from focus group discussions should be prepared and reflect the discussion as completely as possible, using the respondents' own words. List the key statements, ideas and attitudes expressed for each topic of the discussion.

After transcribing the discussion, code the statements right away using the left margin. Write comments in the right margin. Formulate additional questions if certain issues are still unclear or controversial and include them in the next FGD to check the quality and validity of the responses.

Further categorize the statements for each topic, if required. Compare answers of different subgroups.

The findings should be coherent. If findings contradict each other, conduct additional FGDs or bring together representatives from two different subgroups to discuss and clarify the differences.

Summarize the data in a matrix, diagram, flow chart or narrative and interpret the findings.

Select the most useful quotations that emerge from the discussions to illustrate the main ideas.

A plan for the processing and analysis of data includes:

a decision on whether all or some parts of the data should be processed by hand or computer;

preparation of dummy tables for the description of the problem, the comparison of groups if applicable or the establishment of relationships between variables, guided by the objectives of the evaluation;

a decision on the sequence in which tables should be analysed or in what order data should be analysed;

a decision on how qualitative data should be analysed;

an estimate of the total time needed for analysis and how long particular parts of the analysis will take;

a decision concerning whether additional staff are required for the analysis;

an estimate of the total cost of the analysis.

DEFINITIONS OF DESCRIPTIVE STATISTICS

Descriptive Measures	
proportions	number of observations with a given characteristic divided by the total number of observations (e.g., prevalence of vitamin A deficiency among children age 6-71 months)
frequencies	arrangement of values from lowest to highest with a count of the number of observations sharing each value; counts often converted into a percentage of the total count
rate	occurrences per a certain constant, often over a fixed time period
ratios	1) number of observations in a given group with the characteristic divided by the number of observations in the same group without the characteristic 2) a total divided by a number of units or items, e.g., the cost-delivery ratio (costs divided by number of outputs delivered) or the cost-effectiveness ratio (costs divided by the number of outcomes achieved)
Measures of Central Tendency	
mean	the average; calculated by totalling the values of all observations and dividing by the number of observations
median	the middle observation - half the observations are smaller and half are larger; calculated by arranging the observations from lowest to highest (or from highest to lowest), counting to the middle value, then taking the middle value for an odd number of observations and the mean of the two middle values for an even number of observations
mode	the value of the distribution that occurs most frequently
Measures of Dispersion	
range	difference between the largest observation and the smallest; often expressed as the largest and smallest observation rather than the difference between them
standard deviation	a measure of the spread of data about the mean
percentiles	a number that indicates the percentage of the distribution that is equal to or below that number; often used to compare an individual value with a set of standards (e.g., growth references)

TYPES OF DATA

Type of Data		Definition
Numerical		Values for which numeric magnitude has meaning.
	Discrete	Restricted to certain values that differ in fixed amounts. No intermediate values are possible. Examples: the number of times a woman has given birth or the number of beds available in a hospital.
	Continuous	Not restricted to whole number values. Examples: height, weight, or age.
Non-numerical		Values for which numeric magnitude has no meaning.
	Nominal/ Categorical/ Class	Values are arbitrary codes with no inherent meaning. The order and magnitude of the values are unimportant. Examples: sex (1=male, 2=female), nutritional status (1=underweight, 2=adequate weight), district.
	Ordinal	Values have inherent meaning based on order but not magnitude. Examples: ratings of quality or agreement (1=high, 2=low or 1=low, 2=high; 1=very good, 2=good, 3=bad, 4=very bad).

DATA SUMMARY USE FOR DIFFERENT DATA TYPES

DATA TYPE		**SUMMARY TYPE**									
		Descriptive measures				**Measures of central tendency**			**Measures of dispersion**		
		Proportion	Frequency	Ratio	Rate	Mean	Median	Mode	Range	Standard deviation	Percentiles
Numeric											
	Discrete	Depends on situation	Depends on situation	Depends on situation	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Continuous	Depends on situation	Depends on situation	Depends on situation	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Non-numeric											
	Nominal/ Categorical/ Class	Yes	Yes	Yes	Depends on situation	No	No	No	Depends on situation	No	No
	Ordinal	Yes	Yes	Yes	Depends on situation	No	No	No	Depends on situation	No	No

FORMATS FOR PRESENTING QUALITATIVE DATA

A wide variety of charts and graphics are used to organize, summarize, compare, and illustrate the data. This is especially important with qualitative data, because it usually is not appropriate to summarize and interpret using statistical methods. Charts, graphics, and examples help those who were not involved in the research to see the results and understand the implications. Charts and other graphics are used to provide overviews of general concepts and trends and to illustrate specific points, as discussed below.

These formats are used to present an overview of general trends, practices, and beliefs using different formats.

- A *matrix* is used to link practices with perceived benefits and costs. Matrices are more informative than simple lists of practices because they provide insights into the motivations and constraints underlying those practices.

- A *diagram* of the usual sequence of practices related to different aspects of child feeding is instructional and more informative than textual descriptions.

- A *taxonomy* of perceived feeding problems is used to summarize reported symptoms, causes, and actions or treatments.

- A *decision chart* is used to outline feeding problems or conditions that affect observed behaviours. The chart shows the sequence of decisions that lead to different behaviours, depending on different conditions and outcomes.

- Prepare similar charts or graphics for different groups and compare them. Similar charts for health workers, mothers with more and less experience, or mothers from rural and urban areas can be prepared and compared. Use specific examples to illustrate points and help the audience understand.

- Brief *case studies* describing feeding practices and how they changed over time among one or two children illustrate transitions in feeding at high-risk age periods.

- A *table or chart* describing foods consumed by two children of the same age (one with good practices, the other with poor ones) demonstrates the variation in foods and practices among the population. This comparison also illustrates just how little some children eat and how much others in similar homes consume.

- A *list of quotes* and key phrases about beliefs and local names for practices is also informative. Peoples' actual expressions provide clues on how to phrase effective nutrition messages.

TRANSPARENCY 6.1a

Respondent number	Q1: Age (months)	Q2: Sex		Q3: Breastfed?			Age at introduction of solid food (months)
		Male	Female	Yes	No	Don't Know	
1	7	x		x			3
2	3		x		x		0
3	6		x	x			4
4	3		x	x			4
5	10		x			x	
6	2	x			x		0
7	4		x		x		8
8	3	x			x		0
9	7		x			x	
10	9	x		x			6
11	4		x		x		0
12	3		x			x	
13	1	x			x		0
14	9		x	x			4
15	14	x				x	
16	6		x			x	
17	8	x		x			6
18	7		x	x			3
19	12	x		x			4
20	3		x			x	
Total	mean 6.0 years			8 40%	6 30%	6 30%	

Respondent number	Q1: Age (months)	Q2: Sex		Q3: Breastfed?			Age at introduction of solid food (months)
		Male	Female	Yes	No	Don't Know	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
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13							
14							
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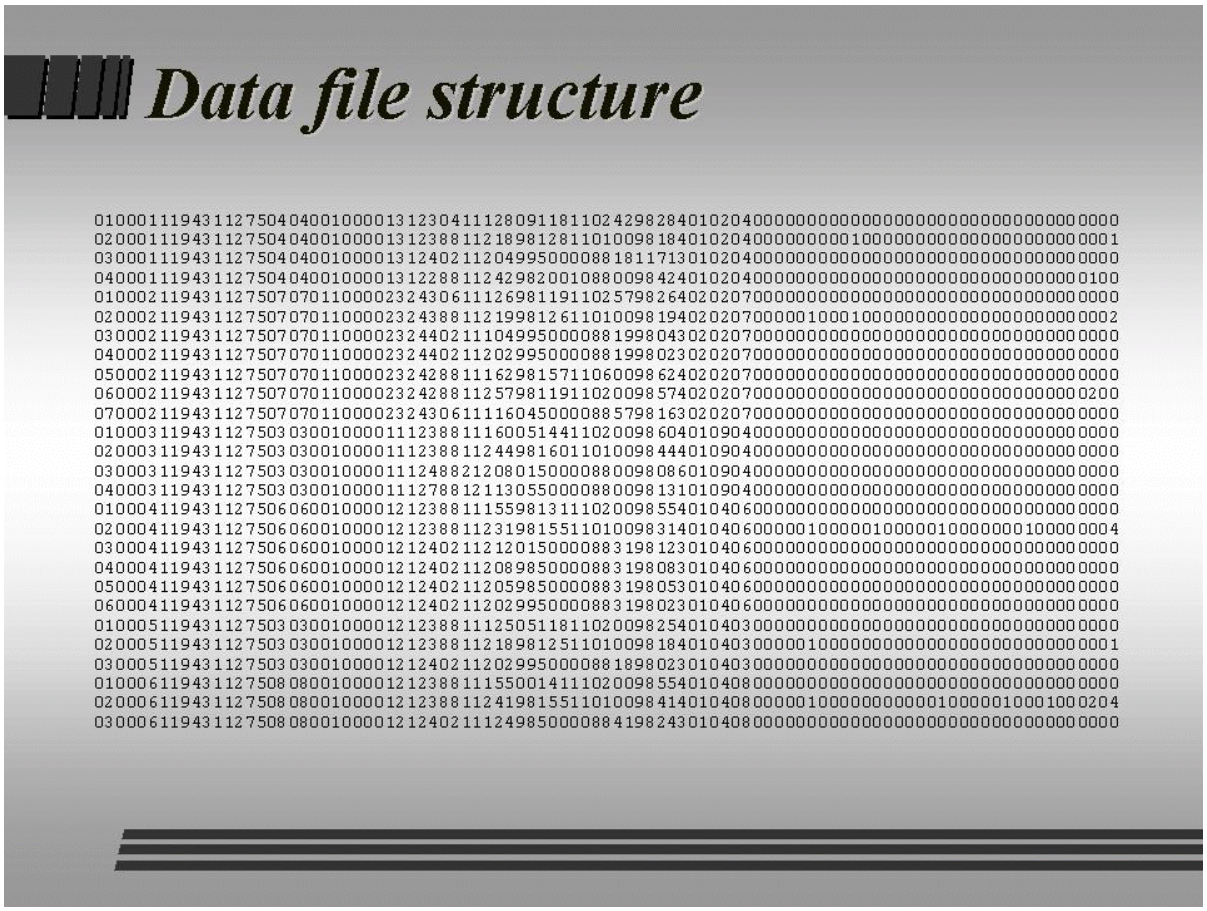
20							
Total							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Cleaning data

- Run frequencies
- Create graphs
- Make logic checks

DEFINITIONS OF DESCRIPTIVE STATISTICS

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TRANSPARENCY 6.6

Cause	World	Sub-Saharan Africa	India	China	Other Asia and Islands	Latin America and the Caribbean	Middle Eastern crescent	Formerly socialist economies of Europe	Established market countries
Population (millions)	5267	510	850	1,134	683	444	503	346	798
Communicable Diseases	45.8	71.3	50.5	25.3	48.5	42.2	51.0	8.6	9.7
Tuberculosis	3.4	4.7	3.7	2.9	5.1	2.5	2.8	0.6	0.2
STDs and HIV	3.8	8.8	2.7	1.7	1.5	6.6	0.7	1.2	3.4
Diarrhea	7.3	10.4	9.6	2.1	8.3	5.7	10.7	0.4	0.3
Vaccine-preventable childhood infect.	5.0	9.6	6.7	0.9	4.5	1.6	6.0	0.1	0.1
Malaria	2.6	10.8	0.3	*	1.4	0.4	0.2	*	*
Worm infections	1.8	1.8	0.9	3.4	3.4	2.5	0.4	*	*
Respiratory infections	9.0	10.8	10.9	6.4	11.1	6.2	11.5	2.6	2.6
Maternal causes	2.2	2.7	2.7	1.2	2.5	1.7	2.9	0.8	0.6
Perinatal causes	7.3	7.1	9.1	5.2	7.4	9.1	10.9	2.4	2.2
Other	3.5	4.6	4.0	1.4	3.3	5.8	4.9	0.6	0.5
Noncommunicable diseases	42.2	19.4	40.4	58.0	40.1	42.8	36.0	74.8	78.4
Cancer	5.8	1.5	4.1	9.2	4.4	5.2	3.4	14.8	19.1
Nutritional deficiencies	3.9	2.8	6.2	3.3	4.6	4.6	3.7	1.4	1.7
Neuropsychiatric disease	6.8	3.3	6.1	8.0	7.0	8.0	5.6	11.1	15.0
Cerebrovascular disease	3.2	1.5	2.1	6.3	2.1	2.6	2.4	8.9	5.3
Ischemic heart disease	3.1	0.4	2.8	2.1	3.5	2.7	1.8	13.7	10.0
Pulmonary obstruction	1.3	0.2	0.6	5.5	0.5	0.7	0.5	1.6	1.7
Other	18.0	9.7	18.5	23.6	17.9	19.1	18.7	23.4	25.6
Injuries	11.9	9.3	9.1	16.7	11.3	15.0	13.0	16.6	11.9
Motor vehicle	2.3	1.3	1.1	2.3	2.3	5.7	3.3	3.7	3.5
Intentional	3.7	4.2	1.2	5.1	3.2	4.3	5.2	4.8	4.0
Other	5.9	3.9	6.8	9.3	5.8	5.0	4.6	8.1	4.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Millions of DALYs	1,362	293	292	201	177	103	144	58	94
Equivalent infant deaths (millions)	51.0	9.0	9.0	6.2	5.5	3.2	4.4	1.8	2.9
DALYs per 1,000 population	259	575	344	178	260	233	286	168	117

* Less than 0.05 percent

Note: DALY, disability-adjusted life year; STD, sexually transmitted disease; HIV, human immunodefiency virus

Source: World Bank Data

Cause	World	Sub-Saharan Africa	India	China	Other Asia and Islands	Latin America and the Caribbean	Middle Eastern crescent	Formerly socialist economies of Europe	Established market countries
Population (millions)	5267	510	850	1,134	683	444	503	346	798
Communicable Diseases	45.8	71.3	50.5	25.3	48.5	42.2	51.0	8.6	9.7
Noncommunicable diseases	42.2	19.4	40.4	58.0	40.1	42.8	36.0	74.8	78.4
-- **Nutritional deficiencies**	**3.9**	**2.8**	**6.2**	**3.3**	**4.6**	**4.6**	**3.7**	**1.4**	**1.7**
-- Ischemic heart disease	3.1	0.4	2.8	2.1	3.5	2.7	1.8	13.7	10.0
Injuries	11.9	9.3	9.1	16.7	11.3	15.0	13.0	16.6	11.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: World Bank Data

Table 1. Iodized salt use at household and presence of iodine.

Type of Salt used by Household	All Areas	
	No.	%
Total	2,220	100.0
Iodized, confirmed	780	35.1
Iodized, not confirmed	263	11.8
Non-iodized, not confirmed	233	10.5
Non-iodized, confirmed	944	42.5

Table 2. Distribution of households by reported type of salt purchased and test results for presence of iodine.

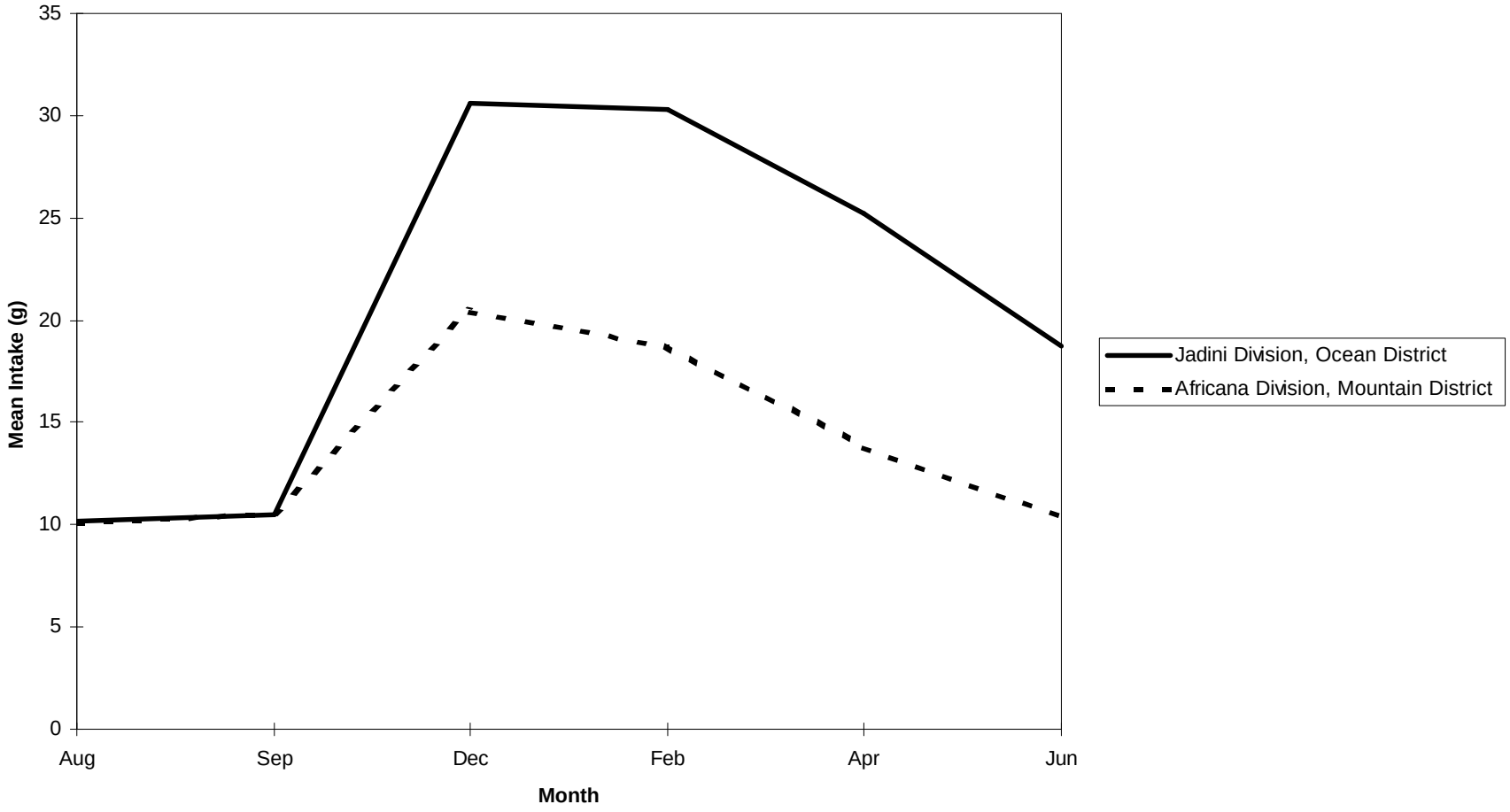
Type of Salt used by Household	All Areas	
	No.	%
Total	**2,220**	**100.0**
Buy iodized salt	**1,043**	**47.0**
Iodized	*780*	*74.8*
Non-iodized	*263*	*25.2*
Buy non-iodized salt	**1,177**	**53.0**
Iodized	*233*	*19.8*
Non-iodized	*944*	*80.2*

Table 3. Distribution of households by type of salt present and reported purchasing habits

Type of Salt used by Household	All Areas	
	No.	%
Total	**2,220**	**100.0**
Using iodized salt	**1,013**	**45.6**
Buy iodized salt	*780*	*77.0*
Buy non-iodized salt	*233*	*23.0*
Using non-iodized salt	**1,207**	**54.4**
Buy iodized salt	*263*	*21.8*
Buy non-iodized salt	*944*	*78.2*

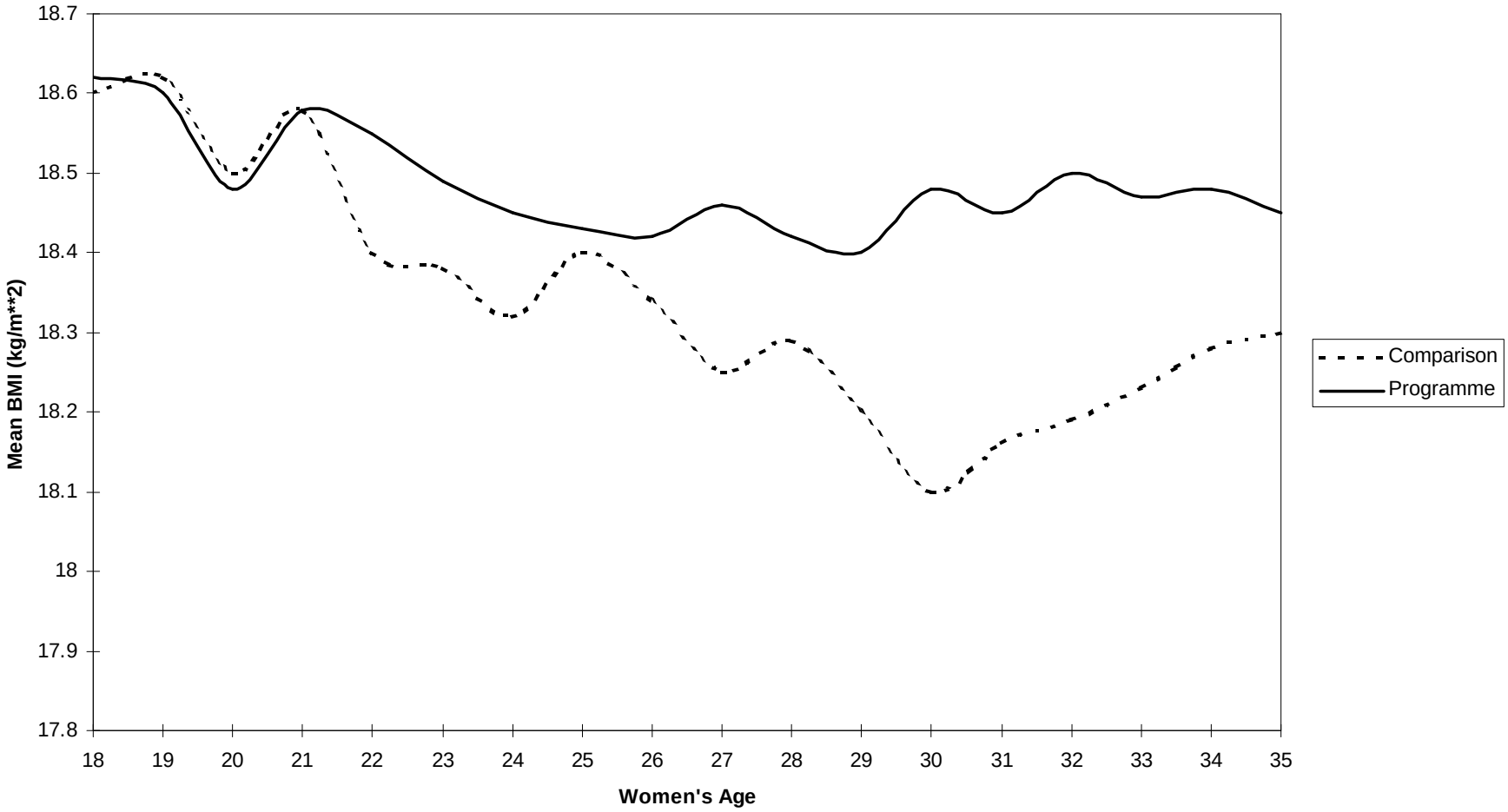
TRANSPARENCY 6.9

Intake of Dark Green Leafy Vegetables by Pregnant Women

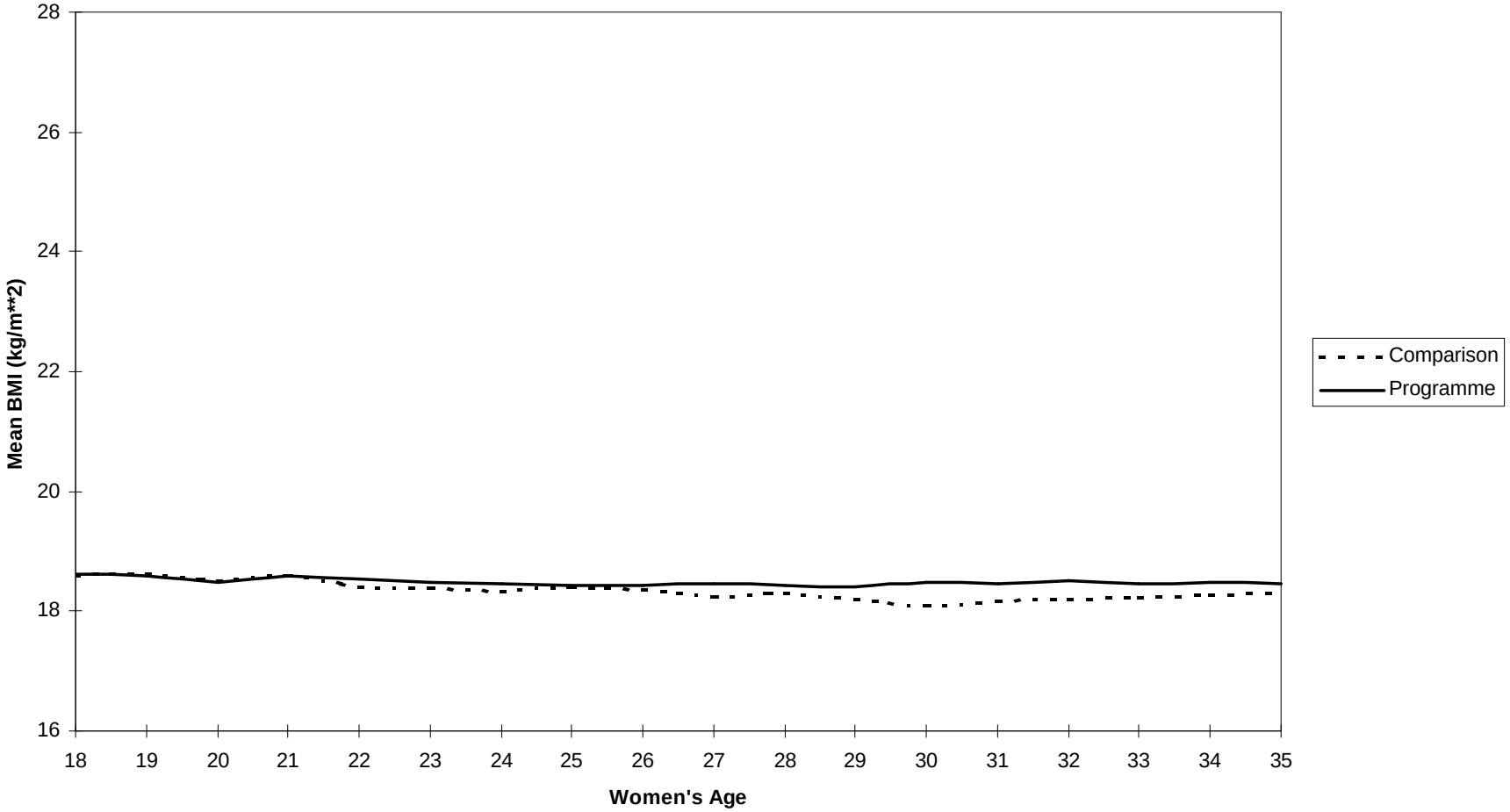


TRANSPARENCY 6.10

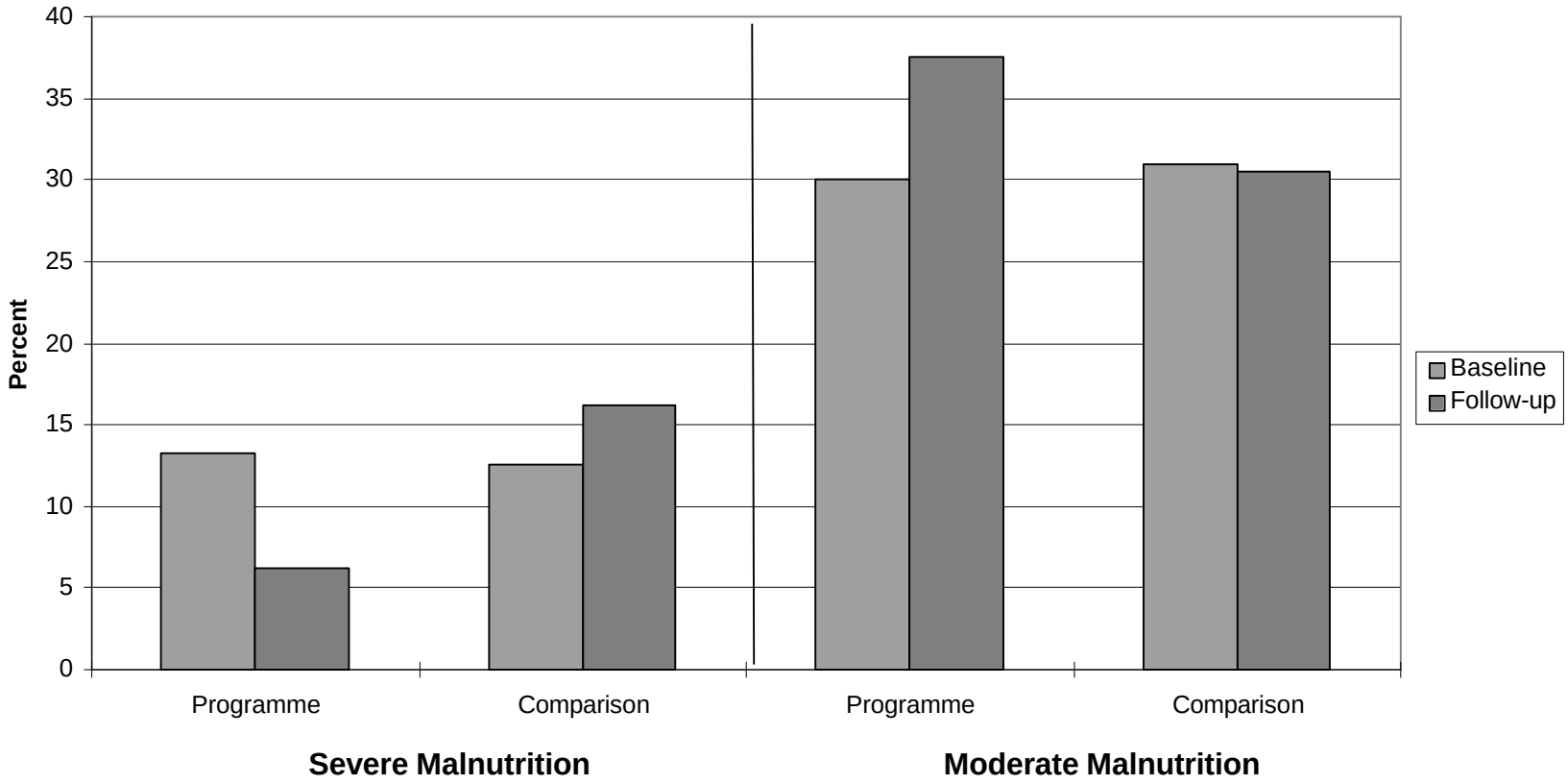
Mean Women's BMI by Age at Follow-up



Mean Women's BMI by Age at Follow-up

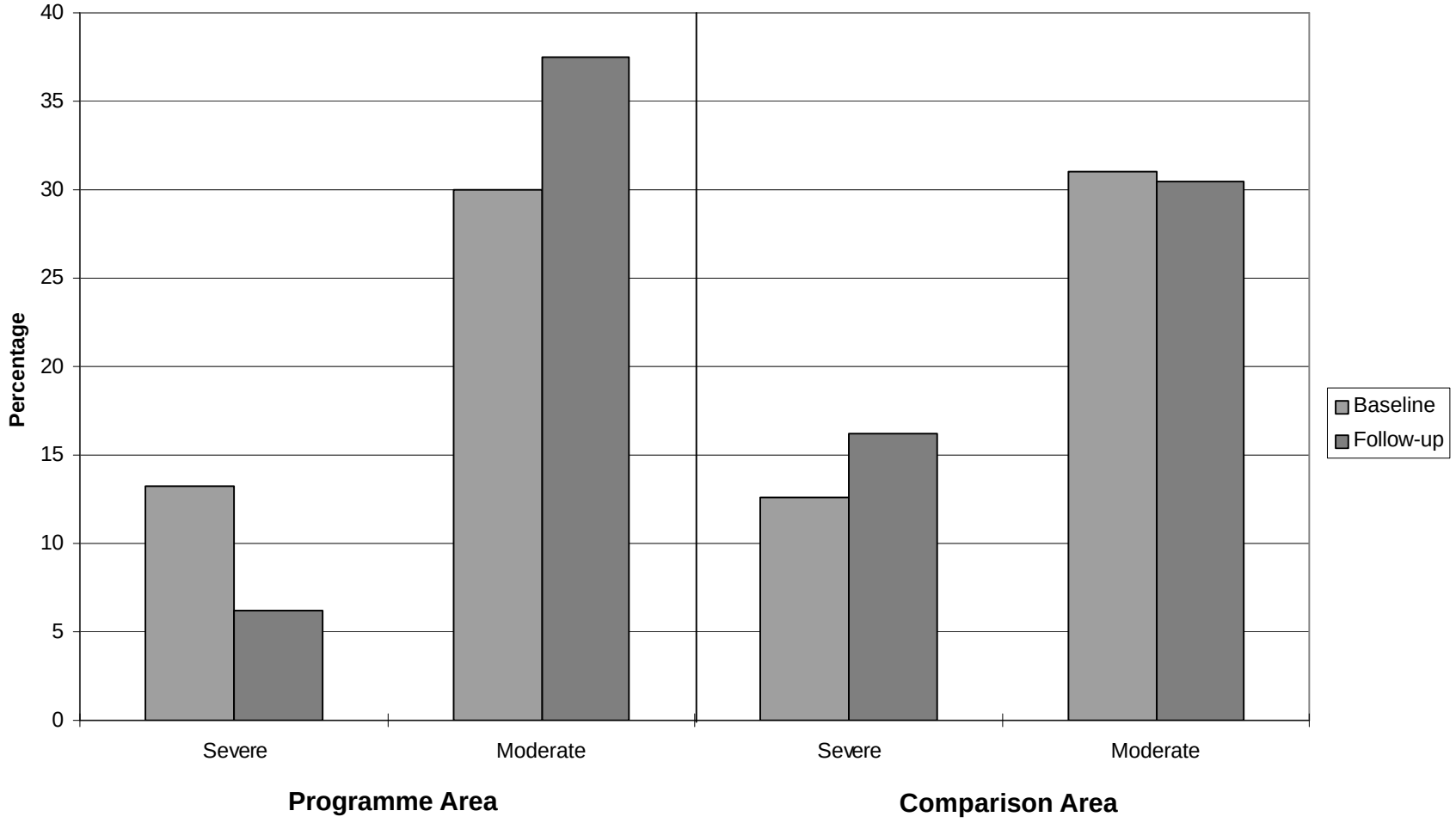


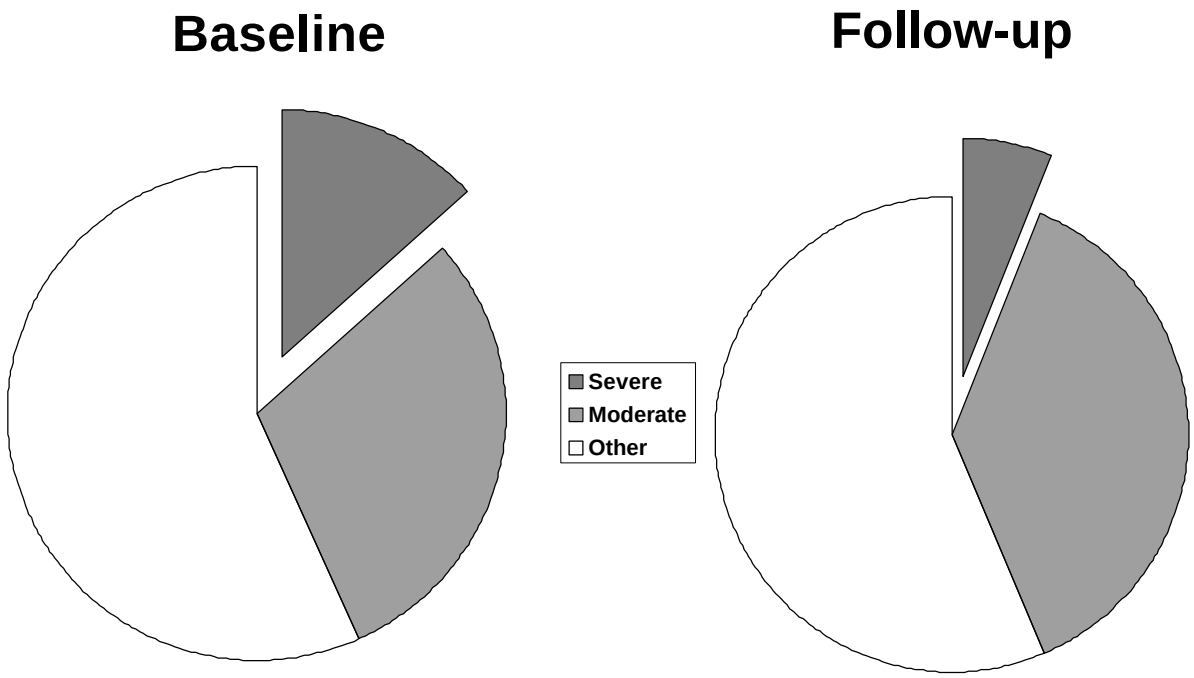
Prevalence of Severe and Moderate Malnutrition at Baseline and Follow-up



TRANSPARENCY 6.13

Prevalence of Malnutrition (weight/age) at Baseline and Follow-up




Baseline
Follow-up
Severe
Moderate
Other

UNIT 7 DISSEMINATION AND USE OF MONITORING AND EVALUATION RESULTS

PURPOSE OF THE UNIT

This unit helps participants to understand how to synthesize monitoring and evaluation results, develop a proper presentation, and organize the final report and dissemination meeting. The unit also explains how to use the results for strategic programme planning.

OBJECTIVES

By the end of this unit, participants should be able to:

- develop a plan for disseminating monitoring and evaluation results;
- identify effective methods of presenting monitoring and evaluation results to stakeholders;
- use monitoring and evaluation findings for improving programmes at each level.

UNIT OVERVIEW

Session 1: Development of a Dissemination Plan (90 minutes)

Session 2: Presentation of Monitoring and Evaluation Results (60 minutes)

Session 3: Use of Monitoring and Evaluation Results (60 minutes)

TIME

3 hours 30 minutes

ADVANCE PREPARATION

Prepare transparency and photocopy handouts. Ensure that all materials are ready and available before session starts.

Handouts:

7.1 Dissemination Workshops
7.2 Outline of an Evaluation Report
7.3 Sample Monitoring Report

Transparency:

7.1 Dissemination Strategy

Materials: flipchart, VIPP cards, markers, pens, paper, masking tape, transparencies, overhead projector, transparency pens

PROCEDURE

Session 1 Development of a Dissemination Plan . . . . . 90 minutes

Step 1: Show participants the objectives of the unit and give a brief overview of the unit. Then point out where we are in terms of the monitoring and evaluation process. Explain that we have collected, analysed and interpreted the data in our study or monitoring system.

Step 2: Ask participants what should go into the development of a dissemination plan for monitoring and evaluation findings and results. Have the co-facilitator write their responses on the flipchart. The following points should come out:

Who are the potential users of the information;
What information do they need;
In what form do they need the information;
Who will organize the dissemination;
What channels will be used to disseminate the information;
When will the dissemination take place.

Step 3: Explain to participants that they will need to match the findings with their audience and that some of the findings will be of more interest to one group than another. Also mention that some channels of communication will be more appropriate for reaching one group than another.

Point out that the primary purpose of a dissemination plan is to identify the most effective media to reach different users with study findings most relevant to their needs. Typically a good strategy will involve multiple media channels used repeatedly over a period of time to reach the largest audience possible. Show **Transparency 7.1** which explains what a dissemination strategy should clearly identify.

Step 4: Divide participants into four groups. Assign the following tasks:

Group 1: the uses of monitoring and evaluation findings;

Group 2: the users of monitoring and evaluation findings;

Group 3: the methods or communication channels that can be used for dissemination;

Group 4: the opportunities for disseminating monitoring and evaluation results.

Allow participants 20 minutes for this activity and then share their reports in plenary.

The following points should come from Group 1:

- decision-making for modifications in programme design and implementation in order to improve programme performance at all levels
- to determine future needs and programmes
- to determine replication and strengthening of the programme
- for policy development

The following points should come from Group 2:

- the community
- the users of the programme
- the providers (at different levels)
- policy makers and planners
- the collaborators/partners (e.g. other donors, NGOs/community organisations, private institutions)

The following points, among others, should come from Group 3:

- dissemination workshops
- publications (identify appropriate media such as journals, newsletters, etc.)
- participatory methods (e.g. community meetings/discussions)
- distribution/sharing of reports
- media (radio, TV, newspapers, or press releases)

The following points, among others, should come from Group 4:

- summary policy and programme briefs on key findings and recommendations

- research meetings
- national or community events such as public or religious gatherings
- Parent-Teacher Association meetings
- National Immunization Days
- Women's Day
- political meetings
- professional meetings

Step 5: Mention that dissemination workshops are a useful way to present findings and recommendations that lead to action because they create a forum for discussion. Point out that a dissemination workshop usually requires a one- to three-day meeting, depending on local circumstances.

Explain that there are no specific workshop agendas provided in this manual because experience indicates that agendas vary greatly by country and programme setting.

Then mention that the general objectives of a dissemination workshop are to:

1) present the key research methods and findings;
2) reach consensus on the programme-relevant conclusions and recommendations;
3) develop a list of follow-up actions to enable participants to implement the recommendations.

Distribute **Handout 7.1** which shows the steps that are required to prepare for such a workshop, what goes into making a good dissemination workshop, and the resources needed for dissemination.

Step 6: Conclude this session by informing participants that whenever an evaluation is completed, it is necessary to develop a dissemination plan or strategy for the findings which will clearly identify the potential users of the information. The plan should have a time schedule for the dissemination and should indicate the specific time and place the dissemination will occur.

Session 2 Presentation of Monitoring and Evaluation Results . . . . . 60 minutes

Step 1: Introduce this session by hanging two cards on the wall—Oral Presentations and Reports. Ask participants to say what they should do when preparing an oral presentation. The following points should come out:

- determine your target group or audience;
- determine their information needs;
- determine the purpose of the presentation;
- organize key points for presentation using appropriate media such as overheads, slides, or computer software programmes;
- arrange the presentation, which should include a brief introduction, the statement of the problem, the objectives, the methods of data collection, the major findings listed in logical sequence, and the recommendations;
- set time limits;
- practice your presentation before presenting it;
- use simple, clear language;
- anticipate questions from the audience and be prepared to answer them.

Step 2: Remind participants that during an oral presentation they can use different formats to clarify and summarize key points. There are a wide variety of charts and graphics that are used to organize, summarize, compare, and illustrate the findings.

Explain to participants that this is especially important with qualitative data, because it is inappropriate to summarize and interpret it using statistical methods. Charts, graphics, and examples help those who were not involved in the evaluation to see the results and understand the implications.

Charts and other graphics are used to provide overviews of general concepts and trends and to illustrate specific points. These formats are

used to present an overview of general trends, practices, and beliefs using different formats.

Step 3: Divide participants into two groups. Ask one group to determine what they think should go into an evaluation report and the other group to determine what should go into a monitoring report. Allow about 10 minutes for this and then share their findings in plenary. Distribute **Handouts 7.2 and 7.3** on the parts of an evaluation report and a monitoring report and walk participants through it.

Remind participants that in writing a report on monitoring and evaluation activities, one must answer several questions including:

- what has been achieved in relation to project plans?
- what has not been achieved and why?
- what actions have been taken to address the slippages?
- what needs to be done to get back on schedule?
- who needs to take the actions and by when?
- what management actions are required and when?
- unforeseen factors which will affect programme delivery?

Session 3 Use of Monitoring and Evaluation Results . . . . . 45 minutes

Step 1: Remind participants about the importance of using monitoring and evaluation results. Explain that monitoring and evaluation findings should be used to influence decisions regarding a programme's future or policies beyond the programme itself.

Ask participants to brainstorm about what elements influence the use of monitoring and evaluation results. Allow 5 minutes for this activity. Write their responses on a flipchart. The following points should come out:

- ownership of the process by stakeholders
- feasibility of the recommendations
- timeliness of the dissemination

Point out to participants that if decision makers have a strong sense of "ownership" or involvement, they are more likely to use the monitoring and evaluation results to adjust ongoing activities or plan future ones.

Also explain to participants that several other strategies may be required to inform key decision-makers and implementors about your findings and recommendations. These may include special meetings or presentations to key decision-makers during the field work to discuss its progress and, after analysis, to present important findings and recommendations. Recommendations and findings should also be presented to the communities studied for their feedback.

Step 2: In small groups, ask participants to review the ways to increase ownership of monitoring and evaluation results by the stakeholders. Allow 10 minutes for this activity. Write responses on a flipchart. The following points should come out:

- involve stakeholders throughout the monitoring and evaluation process;
- hold regular stakeholder meetings to listen carefully to what they have to say and discuss monitoring information as it is gathered;
- hold focus group discussions to determine the needs of stakeholders and the range of policy options available;
- share initial monitoring and evaluation results and drafts of the data with stakeholders and invite interpretation;

- encourage stakeholders to analyze and use data at their level of programme implementation.

Step 3: Remind participants that in addition to issues of format and presentation, results must be credible, understood, delivered in a timely fashion, and, perhaps most importantly, be consistent with implementation realities. Point out that results must be available at the time when decisions are to be made.

The “usability” of results and recommendations also depends on the extent to which they can be put into practice. Efforts to tailor the results and recommendations to the range of policy choices actually open to the decision makers increases utilization of the results by other stakeholders. If the evaluation suggests concrete and realistic steps to address programme-specific problems, it is more likely to be implemented. For example, recommending biochemical anaemia screening for pregnant women will not be helpful if the programme has no capacity to collect blood or carry out field-based analyses.

Ask participants to give other examples from their own programmes of recommendations that may not be utilized and the reasons why.

Step 4: Conclude this session by reminding participants of the need to develop a plan of action for implementing the recommendations, re-think the programme, plan a new evaluation, and continue using and/or revise monitoring indicators based on the recommendations of the evaluation and monitoring findings.

DISSEMINATION WORKSHOPS

The following steps are useful in organizing dissemination workshops.

Define the objectives
Identify dates and venue for the meeting
Identify the participants—who should know about the findings and recommendations?
Draft the agenda
Prepare and copy the materials
Invite participants and arrange all logistics

Other issues that need consideration when organizing a dissemination workshop include:

Invitation to the media
Draft a press release
Draft speeches for key policy makers
Discussion and active participation
Good facilitation
Clear description of research results and recommendations
Answers to questions
Recommendations oriented to concrete action
Human resources, materials, finances and equipment

OUTLINE OF AN EVALUATION REPORT

Title page

the title of the evaluation
the title of the programme
name of the author and/or institution from which the author comes
sponsors/donors of the programme/evaluation
date

Acknowledgments

Executive Summary

background of the evaluation
objectives of the evaluation
problem statement
methods of investigation (briefly describe the methods)
main findings
conclusions and recommendations (major part of the summary)

Table of Contents

List of tables
List of figures
List of abbreviations
List of definitions

Main body of the report

Introductory chapter

Background to the evaluation
Programme description
Literature review (programme documents)
Evaluation objectives
Evaluation questions and sub-questions

Methodology chapter

Evaluation design
Evaluation team

Data collection methods used
Data collection instruments used
Methods of data analysis

Chapter on findings

Data presentation and description

Chapter on conclusions and recommendations

Based on findings to improve programmes

Bibliography

Appendices

Map of the evaluation site or area
Instruments
List of people contacted
List of organizations or institutions visited
List of team members
Timetable of evaluation
Other detailed findings or results
Letters related to the programme or evaluation

SAMPLE MONITORING REPORT

1. Introduction

1.1 Background

Major Stakeholders
Monitoring Team

1.2 Project Description

Summary of Logical Framework/Conceptual Framework
General Status of the Project (Start/finish date)
Rationale

1.3 Monitoring Methodology

1.3.1 General Approach

1.3.2 Source of Data/Indicators

1.3.3 Review of Assumptions

1.3.4 Instruments

1.4 Data Collection and Analysis

1.5 Findings and Recommendations

Project Inputs
Project Outcomes

DISSEMINATION STRATEGY

A dissemination strategy should clearly identify:

- **individuals and groups targeted as potential users of the evaluation;**
- **the types of information that are appropriate for each targeted user;**
- **the barriers to accepting or implementing the results and strategies for addressing them;**
- **the most promising channels for transmitting information to each user.**

COURSE EVALUATION

PURPOSE OF THE TOPIC

This topic allows trainees to evaluate the process and procedures of the course or workshop. It suggests different ways to do this.

OBJECTIVE

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

- evaluate a training course.

OVERVIEW

Session 1: Course/Workshop Evaluation (120 minutes)

TIME

2 hours

ADVANCE PREPARATION

Prepare the evaluation questionnaire or the cards with the topics for evaluation.

Handouts: Course Evaluation Questionnaire

Materials: pens, flipcharts, questionnaire, cards, markers, masking tape

PROCEDURE

Session 1 Course Evaluation . . . . . 120 minutes

Step 1: Explain to the trainees that throughout the course or workshop they have been monitoring and evaluating the sessions on a daily basis through the Steering Committee Meetings. The feedback received at the Steering Committee Meeting was then used to plan the next day's activities.

Step 2: Tell the trainees that they are going to evaluate the entire training course or workshop by writing their comments and feelings about the following topics:

course/workshop objectives
course/workshop methodologies
presentation of inputs
training contents
participatory approach
course/workshop organization/administration
course/workshop resources
any other comments

Give each trainee a bunch of cards and tell them to write one idea per card. Explain to the trainees that they should write as many cards as they wish on one topic. Ask them to place the cards under the topic on the wall.

Step 3: Once the cards have been placed under the correct topic, ask one trainee to read aloud all the cards that belong to a particular topic. The trainee should give a general overview of what the trainees have written on the cards. You should add your own comments and observations. Repeat this process by having a different trainee for each topic.

Step 4: Conclude the session by explaining to the trainees that this is a participatory way of evaluating a training workshop. The information on the cards should be analysed, interpreted and used for writing the final report on the course/workshop. The report becomes a permanent record of the course/workshop and should be used for planning and improving similar courses/workshops in the future.

Another way that could be used to evaluate the course or workshop is with a questionnaire. A sample of one is given in the Trainer’s Notes.

ADDITIONAL INFORMATION FOR FACILITATORS

The Introduction to this Training Guide contains useful suggestions about how to evaluate a training course/workshop. Irrespective of the method that you decide to use to evaluate the training course/workshop, the Steering Committee should be involved in the choice of methods and topics to be included in the evaluation. If you choose to use a questionnaire to evaluate your training workshop, you should sit together with the other trainers to develop it. The questionnaire should be shared during the Steering Committee Meeting and then finalized. Once it has been completed by the trainees, it should be analysed straight away so that you can share the findings with the trainees before the end of the course/workshop. Here is an example of such a questionnaire.

EVALUATION OF THE MONITORING AND EVALUATION COURSE/WORKSHOP

1. Pre-workshop Information/Preparation

1.1 Did you receive a letter of invitation to this workshop? Yes____ No_____

1.2 Did you receive it in good time? Yes ____ No _____

1.3 What did you do to prepare for the workshop? (Please specify)

_____

_____

2. Workshop Facilities and Organization

Tick how you would rate the following facilities and services.

	Excellent	Good	Fair	Poor
Accommodation				
Meals				
Conference Room				
Administrative Services				
Field Trip				
Workshop Resources				
Workshop Organization				

Comments:

_____

_____

Tick all that apply.

Session Title	Useful	Not Useful	Relevant	Not Relevant	Need More Information	Discard It
Course Orientation						
Overview of Programme Management Cycle						
Description of Monitoring and Evaluation						
Types of Evaluation						
Steps in Conducting Monitoring and Evaluation Activities						
Criteria for Selecting the Core Monitoring and Evaluation Team						
Internal and External Monitoring and Evaluation						
Developing a Programme Conceptual Framework						
Programme Goals and Objectives vis a vis Monitoring and Evaluation Objectives						
Characteristics of Indicators						
Selecting Indicators						

Session Title	Useful	Not Useful	Relevant	Not Relevant	Need More Information	Discard It
Types and Characteristics of Different Evaluation Designs						
Management Information Systems						
Population and Sampling						
Preparing for Implementation of Monitoring and Evaluation Activities						
Quantitative and Qualitative Methods of Data Collection						
Designing Data Collection Instruments						
Administration of Data Collection Instruments						
Preparing the Data						
Analysing Qualitative Data						
Analysing Quantitative Data						
Interpretation of M&E Data/Information						
Data Presentation						
Development of a Dissemination Plan						

Session Title	Useful	Not Useful	Relevant	Not Relevant	Need More Information	Discard It
Presentation of Monitoring and Evaluation Results						
Use of Monitoring and Evaluation Results						

3. Time

What is your feeling about the time given for the following tasks?

	Not enough	Just right	More than enough
Total time for workshop			
Presentations			
Group work			
Field work			
Reporting back sessions			

Comments:

---

4. Workshop Procedures

4.1 What do you think about the day-to-day planning of the programme by the Steering Committee?

	Very much	Much	Somewhat	Not at all
Did it contribute to the achievement of workshop objectives?				
Did it contribute to the achievement of your professional needs?				
If you made any suggestions, do you think they were taken into account by the committee?				

Comments:

4.2. In your opinion, to what extent did workshop procedures encourage active participation in learning?

Completely _____
To a great extent _____
Somewhat _____
Not at all_____

Comments:

5. All in all

	Very Well	Well	Somewhat	Not at all
How well did the workshop improve your skills in monitoring and evaluation?				
How well do you think you are now prepared to train others?				

What additional skills and knowledge do you need in monitoring and evaluation?

6. Would you recommend this course to other people? Yes _____ No _____

If yes, who would you recommend?

_____

_____

_____

If no, explain why

_____

_____

_____

7. In what types of forums should the course be offered?

_____

_____

_____

8. Any other comments

_____

_____

_____

THANK YOU!!