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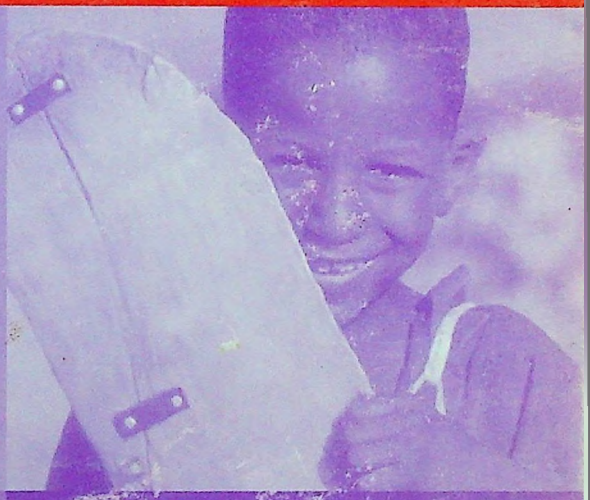
INTEGRATING NUTRITION INTO HEALTH AND DEVELOPMENT PROGRAMMES

A training guide

Volume 1



Participatory Methods for Assessing and Analysing the Nutrition Situation at the District Level

INTEGRATING NUTRITION INTO HEALTH AND DEVELOPMENT PROGRAMMES

A Training Guide

Volume 1: Participatory Methods for Assessing and Analysing the Nutrition Situation

ISBN: 1-86808-515-5

Second Edition
January 2002

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(University of Western Cape)

Sustainable Approaches to Nutrition in Africa
(Academy for Educational Development)

Initiative for Sub-District Support
(Health Systems Trust)

Eastern Cape Department of Health

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Acknowledgements

We would like to thank the Mt Frere district nutrition team especially Modesta Ngumbela, Zandile and Boniwe and Ms. Kama and Ms. Ndabula from the Eastern Cape Provincial Nutrition Office for their support. Benni Sikakhane & Dianne Kloka at National Department of Health: Nutrition and Joan Matji UNICEF South Africa allowed us to test this manual within the Capacity Development Project. Dave McCoy, Susan Strasser, Jon Rohde, and Wendy Hall have all assisted through discussions and debates. Thanks to Lynda at The Press Gang for doing such a professional job.

This manual is the result of a partnership between the University of the Western Cape, Health Systems Trust, the Eastern Cape Department of Health and AED. These organisations have been supported by the Africa Bureau, Office of Sustainable Development, (US Agency for International Development), the Kaiser Family Foundation and the European Union.

Foreword

It is with great pleasure that I welcome the publication of this training manual. As a Provincial Nutrition Programme manager, I have been very aware of the huge challenges that face health workers and their partners in tackling the problem of malnutrition.

The many causes and widespread nature of the problem make it difficult for all of us to plan rationally and see the results. This manual, and its companion publications, will help to provide health workers with the vision, skills and techniques to initiate and sustain a multi-sectoral and comprehensive approach to addressing the problem of malnutrition. Amongst the key objectives highlighted in this manual are the development of local multi-sectoral and multi-disciplinary teams as well as the performance of a rapid but thorough nutrition situation assessment.

While there are many training guides for nutrition field workers, this one has the advantage of having grown out of real experiences in one of the poorest rural districts in South Africa. A variety of practical and realistic tasks and activities based on our local realities therefore help to illuminate this manual.

While this manual does not mark the end of the scourge of malnutrition, nor diminish the huge challenges that face us in ensuring that nobody goes hungry in this country, I am proud of the contribution made by various members of the provincial Department of Health from Mount Frere, as well as their counterparts in the Departments of Water Affairs, Education, Agriculture and Welfare.

I am sure you that this manual together with its set of companion documents can go a long way in assisting district teams to make a start in developing effective Integrated Nutrition Programmes. I hope you will enjoy using this manual and wish you the best in your endeavours.

Nobahle Ndabula

Deputy Director : Nutrition
Eastern Cape Department of Health

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Introduction

Who is this manual for?

This manual is targeted at personnel who are working at a district level and could play a role in combating malnutrition. This includes people working in the:

health department: (including those working in nutrition, maternal and child health, health promotion, environmental health, paediatrics, and nursing) and also other sectors such as:

Education	Public Works
Agriculture	Water Affairs
Social Development	

Participants do not need to have any previous academic qualifications, or any knowledge of nutrition science.

Purpose of manual

The purpose of this manual is to enable a district inter-sectoral nutrition team to be able to:

- ➤ Come to a common understanding of nutrition concepts.
- ➤ Gain an appreciation of the size and impact of the nutrition problem.
- ➤ Identify the different causes of the nutrition problem.
- ➤ Conduct a nutrition situation assessment using different data collection techniques to collect the information.
- ➤ Analyse and write a report.

How to use this manual

Preparing for Training

To ensure a successful training course, preparation must be done properly and efficiently long before the first day of the course. Firstly you must develop a programme and objectives for the course. Secondly, the administrative arrangements must be made such as booking a suitable venue, and letters of invitation to participants should be sent out in good time. Travel arrangements to and from the venue should also be properly arranged. As a course organiser 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 course.

Before The Training

Before the training there are a number of activities that you need to organise. The timing of 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
- ❑ Establish a budget
- ❑ Get quotations for the venue
- ❑ Secure the necessary funding
- ❑ Organise and purchase the stationery and other materials
- ❑ Book the venue
- ❑ Identify and select facilitators, resource persons and special guests
- ❑ 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 organise an opening
- ❑ Arrange for 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

After the Training

- ❑ Prepare a brief report on the training session. This report should highlight all follow-up activities agreed upon during the training session
- ❑ Prepare a detailed financial report
- ❑ Send a copy of the training report and the financial report to supervisors, funders and other persons concerned
- ❑ Send letters to all speakers, facilitators and special guests to thank them for their contribution
- ❑ Contact participants of the training session to provide support and assist with activities agreed upon during the training session
- ❑ If your training session included an Advocacy Day, maintain contact with these representatives and provide them with the findings of situation analyses
- ❑ Optional: Send feedback on this manual (shortcomings and positive aspects) to the authors

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 resource people. In order to team-teach well, it is important for each member of the team to prepare thoroughly 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.

Whoever you choose, we have found it very useful to sit down and go through the session outlined in this manual beforehand.

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.

Resource People

Resource people are technical experts you can call on to facilitate a session 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 at the training course, you should select people who are qualified, competent and knowledgeable in the areas they will be presenting. You will need to contact resource people at least one month before the course and do the following:

- ➤ explain to them about your programme, 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.

Overview of the Training Manual

Each unit in the manual contains experiential activities that address the unit's objectives in a variety of interesting ways. Each activity specifies the purpose of the session, the materials needed, the approximate time required, and the steps to follow. Some activities include preparation that must be done prior to the session, for example accompanying handouts for participants, and/or transparencies.

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, consider 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 in the manual 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. Some require handouts for participants, and board and chalk, or newsprint and markers, for facilitators.

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.

Organising the timetable

We have tried to specify how much time each topic and session will take. This is to help you plan a timetable. The timetable that you adopt will obviously depend upon the availability of participants and venues. However we recommend a timetable as outlined below which has been used with district teams:

Week 1 + 2

Day 1	Advocacy Day (Invitation to participants and a wide range of managers from different sectors, and representatives from the community.) Topic 2 is used for this day.
Days 2-10	Topics 1-4 (The participants remain behind and go through the first 4 topics and are left with a task involving collecting data using techniques outlined in topic 4.) It is a good idea to have a field visit during topic 4 for the participants to field test their tools.

Week 3 (about 1-2 months after Week 1)

Day 1	Feedback from data collected
Day 2-3	Topic 5

Week 4 (about 1-2 months after Week 2)

Day 1	Feedback from data collected
Days 2-5	Topic 6 and writing of situational analysis

TOPIC 1 COURSE ORIENTATION

Objectives By the end of this topic, trainees should be able to:

- ✔ name their fellow participants;
- ✔ discuss their expectations and concerns;
- ✔ explain the objectives and purpose of the workshop;
- ✔ understand the methodology to be used in the training.

Time 2 hours

Topic overview

Session 1: Word of Welcome (40 minutes)

Session 2: Workshop Expectations and Concerns & Objectives (40 minutes)

Session 3: Workshop Methodology (40 minutes)

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

Handouts

H 1.1 Workshop Methodology

Transparencies

T 1.1 Workshop Goal

T 1.2 4 Stages of the Training Process

PURPOSE OF THE TOPIC

The purpose of this topic is to get the workshop off to a good start by having participants introduce themselves and to explain the objectives of the workshop. The workshop methodology will be explained and participants will have the chance to express their expectations and fears. Any administrative matters will be handled at this time.

Session 1: Word of Welcome — 40 minutes

Step 1: Activity: Welcoming Participants

a) Begin this session by officially welcoming trainees to the course/ workshop. If there is an outside guest, invite him/her to speak.

b) Give a brief overview of the course/workshop and the programme.

Step 2: Activity: Introducing Each Other

a) Explain to participants that since they will be together for the next week, it is important to get to know each other and their interests, likes and dislikes.

b) Divide the group into pairs of people who do not know each other well. Tell the pairs 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;
what name he/she would like to be known by in the workshop;
likes/dislikes;
experience in conducting assessments;
experience in nutrition;
an adjective that describes the person.

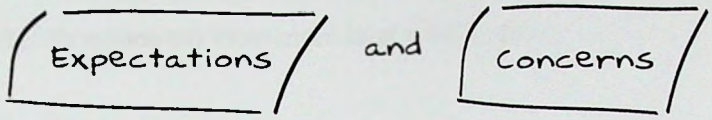
c) When participants have finished interviewing each other, ask for a volunteer to introduce his/her partner. Do this until everyone has been introduced. The facilitator has the opportunity when the introductions are going on to ask for more information and to encourage participants to find out more about each other. Each presentation should not last longer than 3 minutes per person.

d) 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 2: Workshop Expectations and Concerns & Objectives — 40 minutes

Step 1: Activity: Listing Participant's Expectations and Concerns

a) Hang up two cards:



Give participants two sets of cards and ask them to write their expectations and fears about the workshop on the different coloured cards and then to hang them under the correct heading. Tell participants to write one idea per card, but to write as many cards as they need.

b) Ask for one or two volunteers to read the cards under "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 "Concerns".

c) Encourage trainees to explain why they have such concerns and what they think should be done to allay these concerns.

Step 2: Activity: Workshop Objectives

a) Explain to participants that as the organisers of the course/ workshop, you tried to anticipate what professional expectations participants might have, and on that basis you developed the workshop objectives.

b) Display the **Transparency 1.1** (p. 16) with the workshop objectives on it. As you present the objectives of the workshop, compare them with their expectations and point out the close links between the two. Also point out that the workshop may not be able to meet all personal expectations.

c) 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. Mention that the objectives will guide the deliberations of the workshop and that participants should monitor how well they are being achieved during the course/workshop.

d) Show **Transparency 1.2** (p. 17), which goes through the different stages of the training. Explain to participants that the training will take place over a period of time and according to a specific timeframe (see *"Organising the time table"* on p. 5).

Session 3: Workshop Methodology — 40 minutes

Step 1: Activity: Learning About Participatory Learning

a) Distribute **Handout 1.1.** (p. 15) Explain to participants that the methods that will be used in this training are participatory learning methods. Ask them to read the handout which explains why such an approach has been adopted.

b) Ask

"Are there any questions about the handout?"

Step 2: Activity: Organising Times and Committees

a) Explain to the trainees that in view of the amount of work arising from the workshop objectives and their expectations, it is important to agree on the procedures of the workshop. To do this, ask trainees 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 weekends. Once this has been agreed upon, point out that the time must be respected and can only be changed after renegotiation.

b) As part of setting the tone or climate of the workshop, mention to the trainees that this is a participatory workshop. This means the trainees must play an active role in the planning, organization, management and evaluation of the workshop. Tell the trainees that the success of the workshop depends of how well they do this. To enable trainees to participate actively there are two committees that must be established, namely the Steering Committee and the Social Committee. Ask for volunteers for these two committees.

ADDITIONAL INFORMATION FOR FACILITATORS

To a large extent, the success of a training workshop depends on how well it gets off to a good beginning. There are several things you can do to ensure that this happens.

Introductions

To get the first workshop session started, welcome the trainees in a warm and friendly manner. There are a number of games which are specifically geared to increasing the participants' knowledge of each other. This is particularly important in the introductory part of a workshop composed of people from different countries and backgrounds or those who come from different organizations. However, certain exercises are useful for situations when learners know each other at one level and wish to probe deeper to find unknown aspects. The following are short descriptions of some useful introductions.

Cobweb

Ask the participants to form a circle. One is given a ball of string, yarn or cord and is asked to say his/her name, place of work, type of work, workshop expectations and one like and/or dislike (for example, 'I like soccer, I dislike people who shout'). When the person finishes, she/he holds the end of the string and throws or passes the ball to another learner. Then the receiver presents himself/herself as well and passes the ball to another learner. This procedure goes on until all participants and facilitator(s) are interwoven in a cobweb. **The facilitator has the chance to say something about the important role that each person plays in the workshop and that the success of the event depends on the positive contributions from each person. There is a variation of this exercise. It consists of disentangling the cobweb in the reverse order in which it was built. Each one, before returning the ball of string to the one who passed it, tries to repeat the information that was presented by that person.**

Mutual Interview

Divide the group into pairs of people who do not know each other well. Each person takes a sheet of newsprint and a marker. They interview each other for about 5-10 minutes each, asking spontaneous questions and writing down information. At the end of the interview they are asked to draw a symbol for their partner. When each person has been interviewed, a presentation in plenary takes place. Participants stand in pairs in front of the entire group and present each other, describing what they have learned about their partner and why they chose that particular symbol. The presentation should not last longer than 3 minutes per person. If you have room, hang the drawings for display for the remainder of the workshop. **If the students know each other well, you can ask them to find out about such aspects as hobbies, secrets, visions of the future or experiences in childhood.**

The Name Game

Some time during the first day of the workshop, ask participants to stand in a circle and clap their hands. As they clap, call out the name of one person and say that person's name as you continue to clap. When the person hears his/her name, the person has then to call out another person's name. Continue saying the name until the person calls on yet another in the circle. Continue to clap throughout. Do this until everyone has had a chance to have his/her name called out. **This is a good game for the afternoon of Day 1 or the morning of Day 2 of the workshop, when the trainees have heard several new names, but may still be unsure of who is who.**

Who Am I?

Ask participants to write their name on masking tape and stick it their shirt or dress. Tell them to stand in a circle, with everyone wearing his/her name tag. Give trainees 2 minutes to look around the circle and try to get everyone's name. Then tell them to cover their name and ask for a volunteer to try and name everyone in the circle. Give three or four volunteers the chance to do this.

Introductions are important because they are a good way of getting trainees to know each other and feel free with each other. It is a good way to bring about group cohesion and a good working relationship. Through introductions you also learn about the expertise and experiences of one another so that this can be used during the course of the workshop.

Workshop Expectations and Objectives

Once the introductions have been completed, this is a good time to find out from the trainees what their expectations of the workshop are. You should do this by asking them to share with the group what they expect to learn, what new skills and attitudes they expect to acquire and how they may personally benefit from this experience.

It is important to do this because it provides the trainees with the opportunity to see that their views will be taken into consideration. It also enables you and the trainees to appreciate the diversity of expectations, views and interests amongst the group. In general, if the workshop objectives have been well conceived and formulated, they should match the trainees' professional expectations. Their personal expectations should be taken care of during the course of the workshop through the steering committee.

The objectives of the workshop provide a focus and a sense of direction to the learning experiences that trainees will have. They also let the trainees know what they should expect to accomplish or achieve by the end of the workshop.

Workshop Methodologies

Workshop methodologies help to establish a participatory approach to the organization and management of the workshop. There are three procedures which need to be considered. These are:

Negotiating the Timetable

Setting up the Steering Committee

Setting up the Social Committee

Negotiating the Timetable

Negotiating the timetable involves determining the working hours, when to start in the morning and when to end in evening, and the duration of the breaks. This should be done so that the workshop objectives can be realized in the time that is available and to enable trainees to organise their personal activities during free time. Negotiating the timetable helps to ensure that participants make a commitment to keep to the time that they all agree to.

Setting up the Steering Committee

The Steering Committee is a small group comprised of facilitators and trainees. Their task is to sit together to plan and evaluate the workshop, on a daily basis. The purpose of the Steering Committee is to provide feedback on how well the workshop objectives and expectations are being realized and to plan for the next day's activities. The workshop facilitators and any other resource persons are permanent members of the Steering Committee. There are two different trainees who join the Committee each day. The best way to get the trainees to serve on the Committee is to put up a list of workshops days and ask for two volunteers for each day. Such a list would look like this:

STEERING COMMITTEE MEMBERS

	Date	Names
Monday	14/2	John, Anne
Tuesday	15/2	Ellen, Jessica
Wednesday	16/2	Jane, Louise

The course/workshop organiser is the permanent chairperson of the Steering Committee. In order to give the trainees a chance to participate more fully, there is a new chairperson and secretary for the workshop each day. They are appointed by the Steering Committee. The chairperson of the day is responsible for keeping time and chairing all of the sessions according to the day's timetable. The secretary prepares a short summary report of the day's proceedings. This report should be given to the facilitator who will use it to compile the workshop report. A report from the Steering Committee Meeting is shared with the trainees during the first 15 minutes of the next day under the session knows as Administrative Matters. This report is given by the Chairperson of the day. During this time, the Chairperson should find out from the trainees if they have any questions from the deliberations of the workshop.

The Social Committee

The Social Committee takes care of the well being of the trainees during the workshop. It usually has five trainees. The committee is responsible for organizing entertainment and recreational activities. The committee appoints one of its members to serve as the chairperson. They may ask anyone else to join them as the need arises. They should consult the workshop facilitator on any financial matters. The chairperson of the Social Committee should present his/her requests to the Steering Committee for approval. Members of the Social Committee should be nominated by the trainees in the workshop. The Social Committee does not meet on a daily basis, but only when the need arises.

Administrative and Housekeeping Matters

There are certain details concerning the trainees, such as travel, accommodation and personal expenses that need to be taken care of on the first day of the workshop. This helps them to settle in at the workshop and puts their minds at ease. During this session, give information regarding:

- the procedures for making claims;
- the facilities available at the venue;
- the expenses trainees are expected to meet;
- the resources available.

If all these tasks are well taken care of, the workshop should get off to a good start.

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 that it is based on well founded theories of adult learning.

Lecture

A lecture is a structured and orderly presentation of information delivered by an individual (facilitator). A lecture can be used to impart knowledge or introduce skills. A lecture 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 issue or topic in the workshop. 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, 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 workshop. You ask a question, pose a problem or raise an issue and participants 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 workshop alive by discussing personal experiences and sharing their feelings. You need to identify such people and invite them in good time to the workshop. Make sure they are dynamic, knowledgeable about the workshop and comfortable speaking in front of an audience. Prepare the participants 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 in order to be able to refer back to it and give it at a later stage. You may find participants asking questions that are outside the workshop. Keep these in mind by writing them down on the flipchart and answer them at a later time.

Handout 1.1

WORKSHOP METHODOLOGY

There are a number of principles which underlie the approach that has been taken in this training course. These are:

Enjoyment: People learn best when they are enjoying the learning process.

Experience-Based: There is a recognition that all the participants have been involved in tackling malnutrition and therefore have substantial experience to draw upon. By sharing and comparing approaches participants acknowledge each other as invaluable sources of information.

Participatory: For nutrition programmes to be a success there is a need for participation from those effected. This course encourages learners to develop communication skills to facilitate participation. Learning activities encourage co-operative group work and listening skills.

Analytical: The process aims to develop learners' critical thinking and planning skills. Participants will learn basic nutrition and programme knowledge so that they can effectively assess, plan and implement comprehensive nutrition programes.

African: All of the data and examples are based upon experiences in Southern Africa. There is also an emphasis on oral communication and sharing of stories as a means of learning.

Adapted from "Reducing Risk: Participatory activities for disaster mitigation in Southern Africa", A Kotze and A Holloway, Red Cross Publications 1996.

Transparency 1.1

T 1.1

Workshop Goal

To acquire the skills to be able to conduct nutrition situation assessments at the district and community levels using participatory research methods.

Workshop Objectives

By the end of the workshop, you should be able to:

- **Describe the nutrition situation in South Africa and in your district;**
- **Explain the immediate, underlying and basic causes of nutrition problems and the interrelationships between them;**
- **Demonstrate an understanding and respect of local knowledge and skills;**
- **Utilize skills to facilitate local knowledge and participation in nutrition activities;**
- **Perform a nutrition situational analysis for your district;**

Transparency 1.2

T 1.2

4 Stages of the Training Process

- **Basic nutrition concepts; conceptual framework and the INP; framework for nutrition situational assessment**
- **Nutrition research methods and preparation of data collection tools**
- **Field work and data collection on assessment of nutrition services and community programmes**
- **Analysis, reporting and dissemination of situational assessment**

TOPIC 2 THE NUTRITION SITUATION IN SOUTH AFRICA

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

- ✔ define malnutrition;
- ✔ explain how malnutrition affects different groups in the population;
- ✔ describe the nutrition situation in South Africa;
- ✔ explain the UNICEF conceptual framework and its use;
- ✔ explain the importance of a multi-sectoral approach in dealing with nutrition;
- ✔ outline the Integrated Nutrition Programme.

Time 5 hours 30 minutes

Topic overview

Session 1: What is Malnutrition? (120 minutes)
Session 2: The Nutrition Situation in SA (30 minutes)
Session 3: The UNICEF Conceptual Framework (90 minutes)
Session 4: Integrated Nutrition Programme (90 minutes)

Materials flip chart, pens, slides, VIPP cards

Handouts

H 2.1 List of definitions

Transparencies

T 2.1 Marasmic Child **(a and b)**
T 2.2 Kwashiorkor Child **(a and b)**
T 2.3 Undernourished Child
T 2.4 Growth Chart
T 2.5 Growth Chart
T 2.6 Prevalence of Underweight by Province (Weight for Age)
T 2.7 Stunting Rates by Province (Height for Age)
T 2.8 Vitamin A Status by Province
T 2.9 Iron Status by Province
T 2.10 UNICEF Conceptual Framework
T 2.11 Triple A Cycle
T 2.12 The SA Integrated Nutrition Programme
T 2.13 INP Focus Areas

PURPOSE OF THE TOPIC

The purpose of this topic is to provide participants with information in order to clarify the concept of malnutrition.

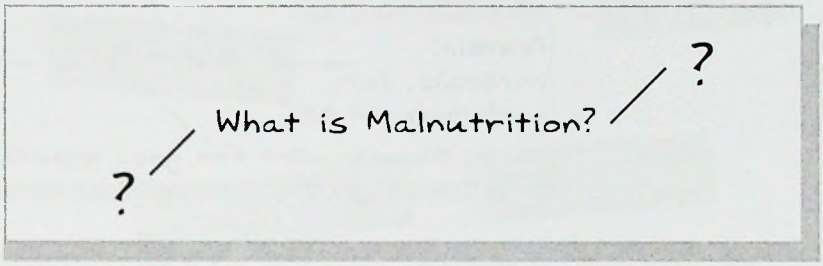
Session 1: What is Malnutrition? 120 minutes

Step 1: Activity: Clarify the Session Topic and Outcomes

a) Write the session topic on the flipchart.

"Looking at the topic, what do you think you will learn about in this session?"

Jot down a few ideas in a mindmap.



b) Summarise the main purpose, and key content covered in this session:

"The main purpose of this session is to clarify the concept of malnutrition and some key related terms. This provides a foundation for the rest of the unit."

c) Write up the outcomes for this session.

Outcomes

You should be able to:

1) Define key terms in nutrition
2) Outline key features of undernutrition

Ask if they are clear. Explain that you come back to these at the end of the session.

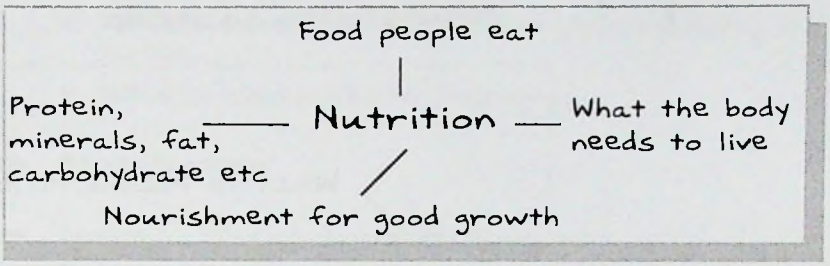
Step 2: Activity: Define Terms

Define Nutrition

a) Write 'Nutrition' on the flipchart.

"What words or phrases come to mind when you think of the word 'nutrition'?"

Get 3 or 4 participants to come and write up their ideas.



b) *"Now, use these words and phrases to come up with a short definition of nutrition."*

Write up and discuss various suggestions. Rewrite these until you have a good working definition that everyone is happy with. Make sure that the definition refers not just to the food people eat, but also to how food is used to produce energy to maintain life and growth. An example of a definition: 'Nutrition is the outcome of the food eaten (the diet) and it manifests as good growth and energy to conduct activities and fight infection'.

Clarify malnutrition terms

a) Add 'mal' to the beginning of the word 'nutrition' on the board.

Ask what *'mal'* means. Then ask *"What does 'malnutrition'* means"

Make sure that participants understand that malnutrition is 'bad' nutrition, which includes over- and undernutrition.

b) Ask

"What terms are used to describe the different forms [or manifestations] of malnutrition?"

Write these on coloured pieces of paper and stick them up.

undernutrition

stunting

kwashiorkor

wasting

underweight

over-nutrition

marasmus

micronutrients

macronutrients

micronutrient deficiencies

c) Organise groups of 3 or 4 persons per group.

Write up and explain the task.

1) Discuss what these nutritional terms mean.
2) Write your definition or explanation of each term on a white piece of paper.

"You have 10 minutes"

d) Collect the pieces of coloured and white paper to use for the next task.

Check understanding of nutritional terms

a) Fold up and randomly distribute all the pieces of coloured and white paper to the participants.

Ask someone with a coloured piece of paper to read aloud what it says.

Ask the person who has the correct definition of this term on a white piece of paper, to stand up and read it aloud.

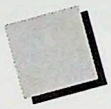
Ask the group if this is the correct definition.

Repeat this until all the coloured pieces of paper are finished.

Ask if these terms are now clear to everyone.

Tell groups to check their definitions with those in **Handout 2.1** (p. 36) for a few minutes.

Step 3: Activity: Identify and Describe Different Types of Undernutrition



a) Show **Transparency 2.1a** (p. 38).

Ask

"What is this child suffering from?"

"What are the main features of this disease?"

Explain that this child suffers from marasmus.

Marasmus

Marasmus is the result of a child having a very low intake of energy and nutrients. It often follows severe illness or a period of frequent infections or inadequate feeding early in life and is especially seen in poor, urban communities where breastfeeding has been replaced by inadequate formula feeding. Marasmus usually occurs in the first two years of life, but it can occur at any age, particularly during famine.

Show **Transparency 2.1b** (p. 39). Point out that the signs of marasmus in children are:

- ➤ extremely low weight
- ➤ extreme wasting with loss of subcutaneous tissue and muscle bulk: the skin often looks loose
- ➤ an "old persons" face
- ➤ irritability and fretfulness

Summarise that marasmus has 2 main manifestations

- ➤ severe undernutrition
- ➤ wasting (thinness, loss of muscle, visible bones)

Point out that dehydration and diarrhoea (the commonest cause of death in children today) are common complications of marasmus.

b) Show **Transparency 2.2a** (p. 40)

Ask: "What is this child suffering from?"

"What are the main features of this disease?"

Explain that this child suffers from kwashiorkor.

Kwashiorkor

Kwashiorkor is more complicated than marasmus. It is most common in children aged 1-3 years, but it can occur in older or younger children. Kwashiorkor is mainly due to a lack of energy and nutrients in combination with some other insult – most commonly an infection like diarrhoea and/or sudden removal from the breast.

Show **Transparency 2.2 b** (p. 41). Point out that the signs of kwashiorkor are:

- ➤ misery and irritability
- ➤ oedema (swelling) of the legs and arms (especially feet and hands) and, less commonly of the face
- ➤ 'moon' face
- ➤ moderately low weight
- ➤ wasted muscles
- ➤ weak muscles
- ➤ poor appetite
- ➤ pale, thin and peeling skin

- ➤ pale, sparse, straight hair which pulls out easily
- ➤ enlarged liver
- ➤ pot belly

Point out that not all of the signs are always present, especially in more 'acute' kwashiorkor where oedema and misery exist but skin or hair changes might not be present.

c) Explain the dangers and complications of marasmus and kwashiorkor

Dangers and complications of marasmus and kwashiorkor

- ➤ risk of death
- ➤ problem of sickness
- ➤ complications eg diarrhoea, dehydration, infections, hypoglycaemia (low blood sugar),hypothermia (low body temperature), anorexia (loss of appetite), anaemia, other nutritional deficiencies.

Point out that in any community where malnutrition exists the severe forms, such as marasmus and kwashiorkor, comprise only a small proportion (about 10%) of all cases of undernutrition. The majority of undernourished children are underweight because they are stunted (too short for their age) and do not show obvious signs of malnutrition. They can only be identified by being measured – having their heights and weights recorded and compared to the heights and weights of normally grown children of the same age. Kwashiorkor and marasmus are markers of much more widespread moderate undernutrition. If you compare undernutrition to a hippopotamus: the top of the head and back which stick out of the water are like kwashiorkor and marasmus. The dangerous 90% is hidden, and it is the same with undernutrition in the community. Some of these children may develop severe undernutrition – marasmus or kwashiorkor – if not detected in time.

d) Write

'Vitamin A deficiency'

on the board and ask

"What are the results of this and what causes it?"

Vitamin A deficiency (VAD) is one of the most important nutritional diseases amongst young children because it:

- damages the eyes and can cause blindness
- increases the risk of infection and death

VAD occurs when a person is not eating enough vitamin A to cover her needs and/or when the body stores are depleted through repeated infection, especially diarrhoea and measles. Xerophthalmia (which literally means dry eye) is the mildest of a range of disorders that affect the eye and that can lead to blindness. The eye signs of vitamin A deficiency occur approximately in this order: night blindness, xerophthalmia, Bitot's spots (small areas of dryness on the eye) followed by corneal lesions and finally corneal scars, eventually leading to blindness.

There is now a great deal of evidence to show that even children who are Vitamin A deficient but do not have the above signs are at a greatly increased risk of dying from infections.

e) Write

'Iron deficiency anaemia'

on the board and ask

"What are the causes and results of this"

Iron deficiency anaemia

The most common form of anaemia is iron deficiency anaemia. This means that the body cannot make enough haemoglobin and healthy red blood cells because it lacks iron. Anaemia affects people's ability to work, increases their tiredness and slows learning in children. In pregnant women anaemia leads to greater illness and increased chances of still-births and low birthweight babies. The signs and symptoms of anaemia include paleness of the tongue and inside of the lips, tiredness and breathlessness; but often children may show no obvious signs.

Causes of low iron are poor diet, extra blood loss (e.g. women who are menstruating, worms), poor absorption (e.g. due to infection of the gut, or worms) and increased need for iron (e.g. women who are pregnant).

f) Write

'Iodine deficiency'

on the board and ask

"What are the causes and results of this?"

Iodine deficiency disorders develop when there is not enough iodine being delivered to the thyroid gland which requires iodine to make thyroid hormone. The thyroid gland enlarges to collect more iodine from the blood (this enlargement is called goitre). Sometimes the thyroid functions normally, but sometimes it fails to produce enough thyroid hormone. This causes hypothyroidism or cretinism.

Explain that cretinism is congenital hypothyroidism (i.e. being born with insufficient thyroid hormone). The most common cause of hypothyroidism is iodine deficiency, and, in the case of cretinism, hypothyroidism in the mother. This condition is not uncommon, particularly in remote rural areas where the soil and all the foods grown in it are iodine deficient and where people survive almost wholly on foods they grow.

IDD delays social and mental development. Iodine deficient children are difficult to educate.

Step 4: Activity: Determine the Importance of Malnutrition

Ask

"Why are we so worried about malnutrition, particularly in children?"

If participants struggle to answer, prompt by asking:

"What effect does malnutrition have on children?"

Summarise that malnutrition has direct and indirect effects on a child:

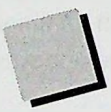
Direct

- During the first two years of life malnutrition can prevent and slow a child's brain from growing. By age 5, the brain has normally reached its maximum size. A prolonged and severe episode of undernutrition in early life can result in reduced brain growth. This could affect a child's ability to learn.
- Undernourished children are more likely to suffer illnesses and these illnesses become more severe than in well-nourished children. This is especially true for diarrhoea, measles and tuberculosis.
- Undernourished children are more likely to die.

Indirect

- An undernourished child has low energy levels, which makes her less active, which, in turn, means she does not learn new things through exploring and discovering for herself.
- An undernourished child has reduced powers of concentration, which restricts his/her learning.

Step 5: Activity: Examine How We Measure Undernutrition



a) Show **Transparency 2.3** (p.42) and ask the following questions

"Are any of these children undernourished?"

"Can you tell just by looking at them?"

"How could you find out for sure if one of them is underweight?"

Make sure that participants understand that we cannot tell if a child is underweight just by looking at the child. The child's weights need to be plotted onto a growth card.

Summarise:

- Most cases of malnutrition are not obvious – kwashiorkor and marasmus are extreme forms and are only the 'tip of a large iceberg' or the top of an almost submerged hippopotamus!
- To recognise most cases of undernutrition, growth monitoring must be performed.

b) Show **Transparency 2.4** (p.43)

Ask

"Is this child undernourished?"

c) Show **Transparency 2.5** (p.44)

Ask

"Now can you tell if this child is undernourished?
How do you know this?"

"What do we learn from this about measuring malnutrition?"

Summarise:

- It is difficult to judge whether a child is undernourished from just one measurement. The direction of growth is much more important.
- It is important that the mother is encouraged to come for regular weighing and that the weights are accurately plotted on every visit to a health facility.
- Since undernutrition affects up to 30% of children in South Africa, it is important that children are weighed at every contact with the health service. This is especially important since most cases of growth faltering occur after the primary course of immunisation has been completed and children are then seen at a health facility only if they have an illness or injury. Unless children are weighed and plotted every time they visit a health facility with an illness, even if it is minor, most cases of undernutrition - and, the opportunity to prevent greater illness - will be missed.

Step 6: Activity: Recognition of Different Measures of Nutritional Status

a) Ask participants:

"What are the different ways in which we measure nutrition?"

b) Summarize the responses by writing the following indicators and measurements on the flipchart:

weight for age,
weight for height,
height for age,
mid upper arm circumference,
anaemia, vitamin A level,
clinical signs.

Inform the participants that the most commonly used indicators are weight for age and height for age because they are usually the easiest to measure.

c) Explain that when a child suddenly becomes undernourished she loses her body fat first and becomes thin. Thinness is measured by the mid-upper arm circumference or her weight for height. Thinness is also called wasting. If undernutrition occurs over a long period of time then the child will stop gaining height. This can be measured by height for age. A child who is of low height for age is called stunted.

d) Ask the participants:

"What makes a child have a low weight for age?"

e) Explain that weight for age is made up of the degree of fatness and the height of the child. So a child who is of low weight for age is underweight and could either be suffering from acute undernutrition (and therefore thinness or wasting) or chronic undernutrition (low height for age which is stunting). The advantage of weight for age is that it can pick up changes in the nutritional status very quickly and is relatively easy to measure. Once again emphasise that this is why it is important to regularly measure and plot the weight for age and to detect any failure to gain weight.

Session 2: The Nutrition Situation in South Africa — 30 minutes

Step 1: Size of the Nutrition Problem in South Africa

Activity – Introduction to session

a) Give a brief overview of the types of information that could be used to measure nutritional status, including:

Biochemical analyses

Clinical signs

Dietary intake

Anthropometric measurements

b) Point out that we can use anthropometric measurements of children as a proxy measure/indicator for the nutritional status of the population. Anthropometric measurements are also cheaper and easier to perform than any of the other measures of nutritional status.

Activity – Identifying the Size of the Problem

a) Show **Transparency 2.6 Underweight by Province (Weight for Age)** (p. 45) and
Transparency 2.7 Stunting Rates by Province (Height for Age) (p. 46)

b) Ask

"What do these graphs tell us about the distribution of undernutrition in South Africa?"

c) Explain to participants that less than '-2SD' is roughly the same as the third centile. In other words we would expect 3% of children (in a normal population) to fall under this level.

d) Point out that Northwest Province, Northern Province and Eastern Cape have high rates of underweight and also high rates of stunting. Remind participants that stunting is related to long term undernutrition when children fail to grow taller due to chronic (or long term) undernutrition as a result of the poor quality of their diet and/or frequent or chronic illness. This is reflected in the fact that the poorest people and provinces have the highest rates of stunting.

e) Show participants **Transparency 2.8 Vitamin A Status by Province** (p. 47) and
Transparency 2.9 Iron Status by Province (p. 48).

Ask

"What do you notice about the distribution of micronutrient deficiency?"

f) Point out that the distribution is similar to underweight and stunting and shows that micronutrient deficiency is mostly linked to poverty and poor diet.

g) Discuss the situation of malnutrition in South Africa in general (and in the provinces/regions in particular where the training and/or programme is being conducted /implemented).

Session 3: The UNICEF Conceptual Framework 90 minutes

Step 1: Activity: Understanding the Multi-factorial Nature of Undernutrition

a) Divide participants into 4 groups and give each group one of the following written on cards:

- ➤ undernourished child in rural setting
- ➤ undernourished child in urban setting
- ➤ undernourished pregnant woman
- ➤ undernourished breastfeeding mother

b) Write the following instructions for the groups:

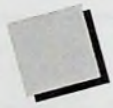
- ➤ Using cards and flip chart paper, write down all the possible reasons why these people are undernourished.
- ➤ When you have done this arrange the cards showing the causes to illustrate the relationships between the different causes.
- ➤ You have 25 minutes for this activity.

c) Ask each group to share their presentation in plenary. Emphasise that there are many causes of undernutrition - not simply disease or lack of food, but also poor health services, poor water and sanitation and lack of care to name just a few.

d) Arrange the cards into different levels of causation from the most immediate to the most basic. Point out that there is also a lot of interaction between causes. Therefore undernutrition is the result of the failure of many different sectors and not just a problem for health workers alone.

e) Show **Transparency 2.10 UNICEF Conceptual Framework** (p. 49) and go through the different levels. Remind the participants that it was developed by UNICEF as a result of their experiences in Africa. The next few sessions will be spent going through these different causes in more detail.

f) Ask participants to think about the different causes of undernutrition in the settings where they work. Point out that in different settings these causes assume different priority. In some settings household food security may need to be addressed before addressing caring practices. The conceptual framework can be used to aid facilitators to guide the community in assessing, analysing and acting on their information (performing a Triple A cycle).



g) Show **Transparency 2.11** (p. 50) with the **Triple A Cycle** and explain that the conceptual framework is useful for guiding the team in the first A - assessment - by directing the team to what are the important causal factors in undernutrition. It is also useful in helping the second and third A's - analysis and action - since the interventions should not only tackle the immediate causes but also, if possible, the underlying and basic causes. Finally point out that it is the local community members who are best placed to judge the relative importance of the various causes of undernutrition. They are also best placed to prioritise interventions or actions that are appropriate for the community.

Session 4: Integrated Nutrition Programme 90 minutes

Step 1: Activity: Identifying the Shortcomings of Nutrition Programmes

a) Inform the participants that in this session they will explore the nutrition policy of the South African government. Point out that past and present governments have spent millions of Rand on nutrition programmes (mostly food handouts) but there has been little change in the nutrition status of most children in South Africa.

Ask

"Why did these programmes have so little impact?"

b) Ask participants to think about the relationship between different programmes (e.g. PEM scheme, Soup Kitchens, NNSDP) and the conceptual framework. Ask participants to write down answers to the following questions:

"Which causes do these programmes address?"

"Are these causes basic, underlying or immediate causes?"

"Which causes do these programmes ignore?"

c) Show the conceptual framework and point out that most food-based interventions only tackle one of the immediate causes of undernutrition: dietary inadequacy. Give the example of how the PEM scheme can in fact undermine household food security and caring practices by encouraging families to purchase expensive milk powder as a way of feeding their children, instead of relying upon foods and resources which are locally available. Handing out milk powder from a clinic could be interpreted by the community members that the health services favour cow's milk or formula feeding which can undermine the promotion of breastfeeding.

d) Explain that the government has now realised the need for an integrated approach to address the immediate, underlying and basic causes of malnutrition and has come up with the integrated nutrition programme.

Step 2: Activity: Outlining the Integrated Nutrition Programme

a) Show **Transparency 2.12** (p. 51) on the vision, mission and principles of the INP and go through it.

b) Explain that the INP is based upon trying to tackle the different causes of undernutrition as outlined by the UNICEF Conceptual Framework and through using the Triple A approach.

c) Show **Transparency 2.13** (p. 52) and explain that this transparency shows the many different areas of activity which are included within an INP. The challenge is to ensure that these activities are done in a co-ordinated and integrated fashion. It may not be possible or necessary to implement all of these activities. Generally it is best to start with the most important ones.

Step 3: Activity: Sharing Experiences of Nutrition Activities in the Area

a) Divide the participants into groups and give them the following task:

Draw a map of the area in which you work

On this map mark out where there are projects/activities which might be a part of an Integrated Nutrition Programme

Make sure that you write down a brief description of the activity or project and who are the main role-players

Which ones of these projects/activities are successful?

What makes them successful?

You have 30 minutes

b) Share their maps in plenary and list the success factors for the projects/activities.

From the responses try to ensure that the following questions are addressed:

What were the steps in implementing the INP?

What are the most important factors for success for the INP?

What skills/resources are required?

Who should be a part of an INP team?

c) Explain to participants that the INP is an ambitious policy which requires the nutrition team to:

advocate for nutrition

collaborate and organise with all sectors,

understand and be able to explain the basic causes of undernutrition,

perform a nutrition assessment and analysis in their districts and

plan, implement and manage integrated nutrition programmes.

All of this must be done in a participatory way. Explain that this workshop aims to provide participants with the skills to enable them to be able to implement an integrated nutrition programme in their district.

Step 4: Activity: Bringing a Team Together

a) Ask

"How can we encourage other members of the district team, whom we have identified as having an important contribution, to participate in the district INP team?"

b) Write up their responses. Stress that one way which has been found to be successful is to invite them to a meeting where the whole team then goes through some of the exercises that they have been doing during the day. It could end with a commitment from all the participants that they will form an INP team. One of the first tasks of this team should be to perform a nutrition situation assessment.

c) Explain to participants that the rest of the training workshops will now concentrate upon giving participants the knowledge and skills to conduct a participatory nutrition situation assessment.

Handout 2.1

DEFINITION OF KEY TERMS IN NUTRITION

Diet is the overall pattern of food intake in an individual including the choice of foodstuffs, and the size and time of meals in one day.

Epidemiology is the study of the distribution and determinants of health related events in a population.

Foodstuffs are the edible parts from plants and/or animal origin appropriate and fit for human consumption.

Health is a complete state of physical, psychological, and social well-being and not merely the absence of disease.

Incidence is the number of new cases arising in a given period in a specified population.

Indicator is the expression of one measurement as a component of another measurement. For example in weight for age, one measurement i.e. weight is compared to another measurement which is age.

Kwashiorkor usually occurs when there is a sudden change in the dietary quality of the child such as during the weaning period. It is characterised by extreme underweight with oedema, weakness, skin lesions and changed colour of the hair.

Macronutrients are carbon-containing compounds (energy providing) of which the body requires large amounts and includes proteins, carbohydrates and fats.

Malnutrition is the impairment of health resulting from a deficiency, excess, or imbalance of nutrients.

Marasmus is a form of severe undernutrition that occurred over a long period of time and is charactised by extreme underweight, wasting (loss of muscle, visible bones), irritability and fretfulness.

Micronutrients are substances of which the body requires only small amounts and includes vitamins and minerals.

Micronutrient malnutrition is the impairment of the health of the individual as a result of an insufficient intake of micro-nutrients (vitamins and minerals).

Nutrients are the smallest particles in food that must be provided to the body in adequate amounts. They include protein, fats and fatty acids, carbohydrates, vitamins, minerals, water and fibre.

Nutrition is the study of the foods, the nutrients and other substances therein; their functions, actions, interactions and balance in relation to health and disease; the process of ingestion, digestion, absorption, transportation, and utilisation of nutrients and the excretion of end-products. Nutrition refers also to the social, economic, cultural and psychological meaning of food.

Nutritional care is the application of the science of human nutrition to assist individuals in the choice of food and the acquisition of food to nourish their bodies in health and disease and throughout the lifecycle.

Nutritional status is the health status of the individual as influenced by the utilisation of nutrients. Nutritional status is assessed using anthropometric assessments, biochemical analysis, clinical observations, and dietary information.

Overnutrition is the nutritional status of an individual resulting from an excessive intake of energy and/or other nutrients.

Prevalence is the total number of cases at a specific point in time in a specified population.

RDA refers to recommended dietary allowances of nutrients.

Stunting refers to a person's height being too low for his/her age (very short).

Undernutrition is the nutritional status of an individual resulting from insufficent intake of energy and/or other nutrients.

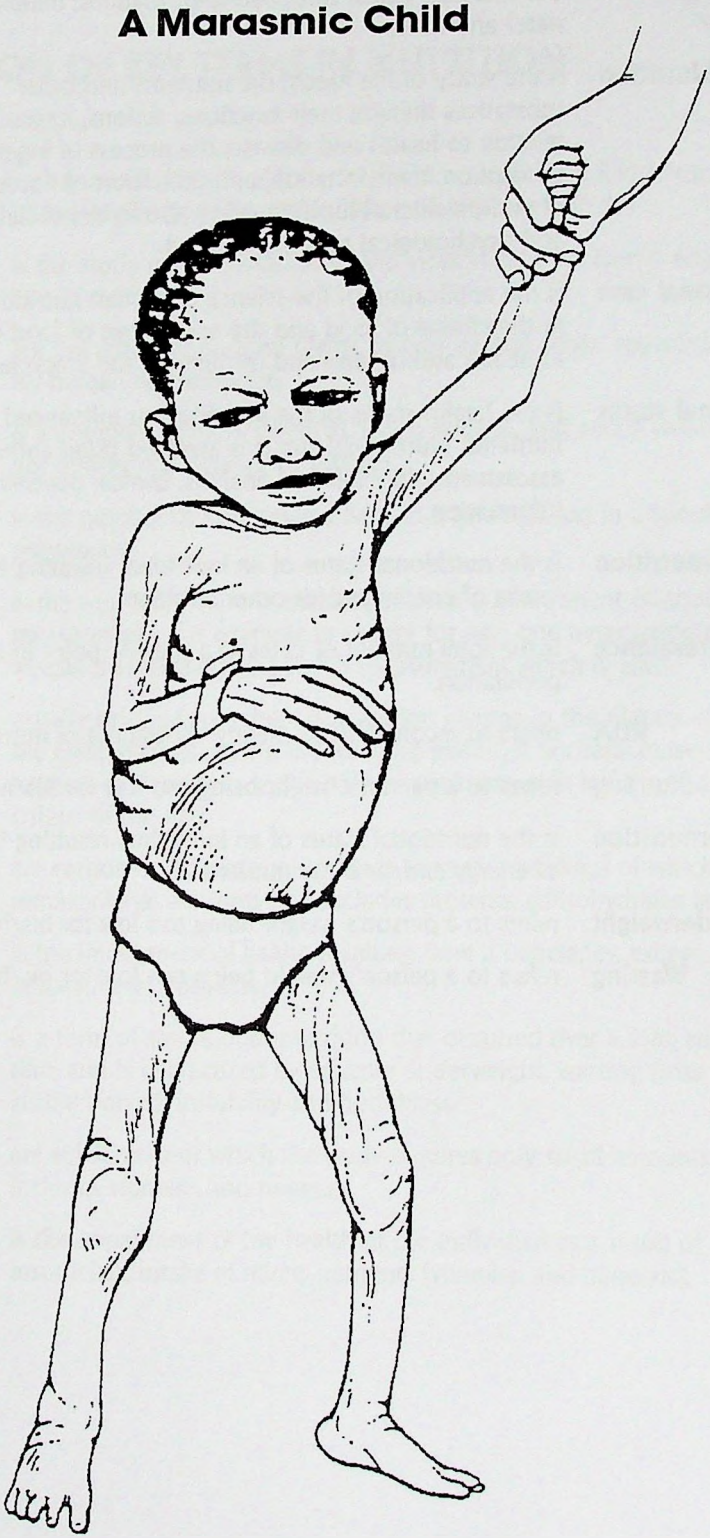
Underweight refers to a person's weight being too low for his/her age.

Wasting refers to a person's weight being too low for his/her height (very thin).

Transparency 2.1a

T 2.1a

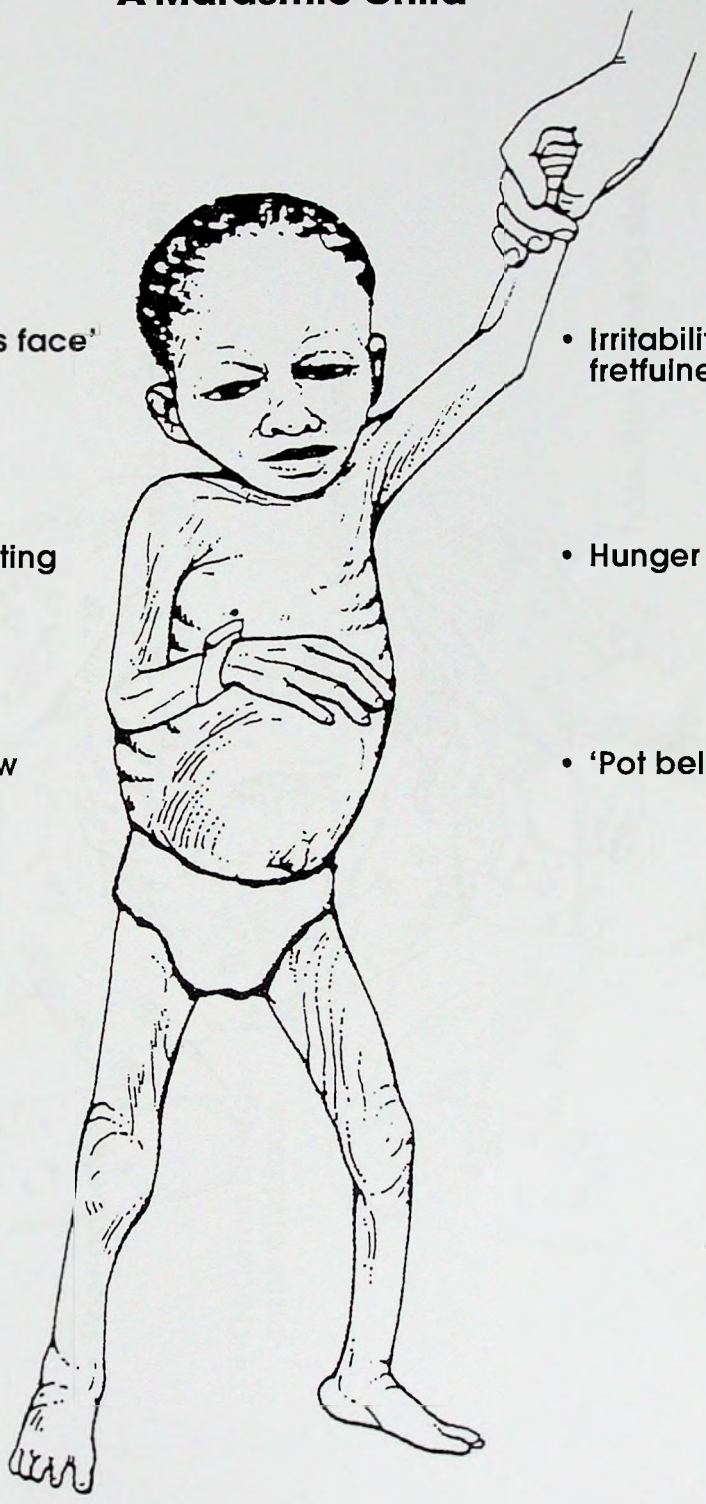
A Marasmic Child



Transparency 2.1b

T2.1b

A Marasmic Child

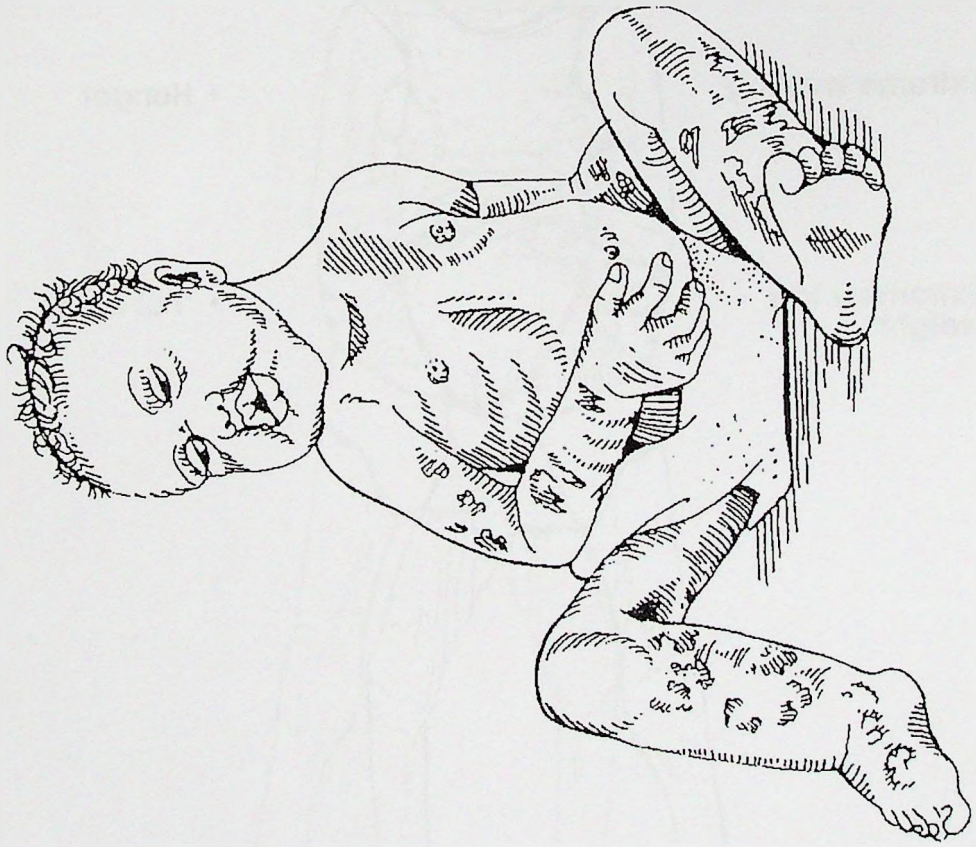


- 'Old person's face'
- Extreme wasting
- Extremely low weight
- Irritability and fretfulness
- Hunger
- 'Pot belly'

Transparency 2.2a

T 2.2a

A Kwashiorkor Child



A Kwashiorkor Child

T2.2b

Transparency 2.3

T 2.3

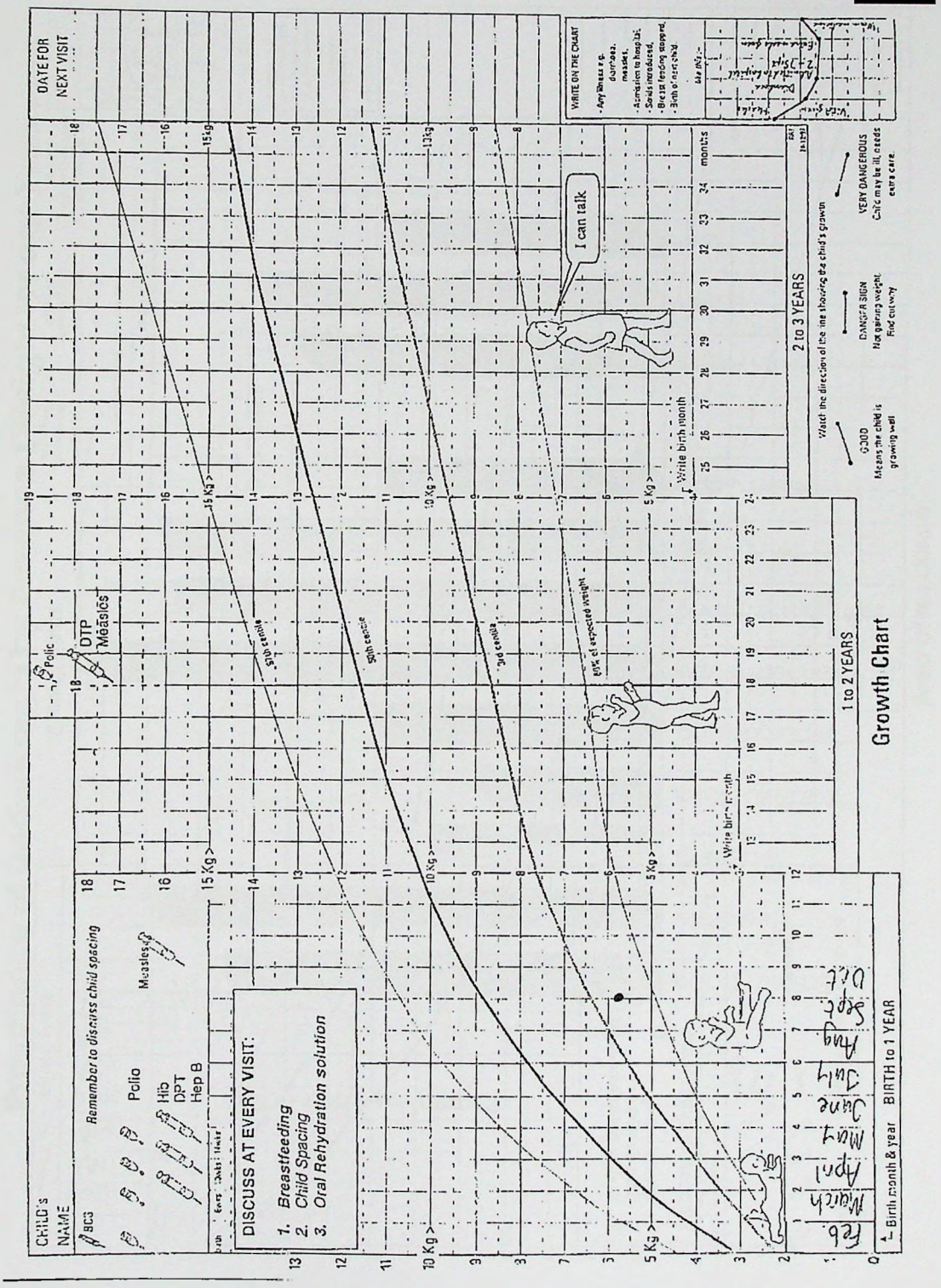
An Undernourished Child

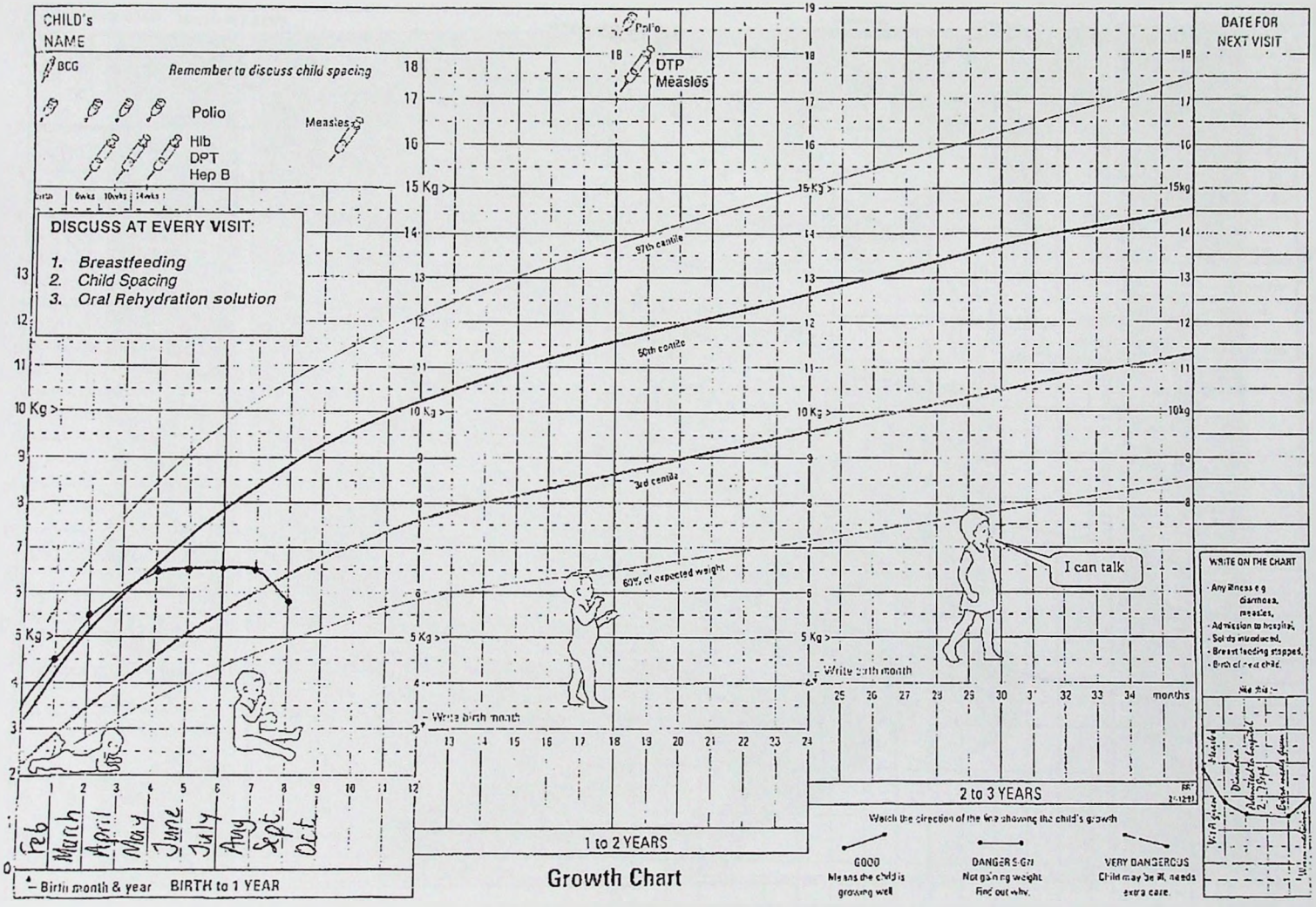
One in four children
suffers from malnutrition.

You can't always see it.
You need to weigh your child regularly.

Transparency 2.4

T 2.4




CHILD's NAME
DATE FOR NEXT VISIT
BCG
Remember to discuss child spacing
Polio
Measles
Hib
DPT
Hep B
Polio
DTP
Measles
DISCUSS AT EVERY VISIT:
1. Breastfeeding
2. Child Spacing
3. Oral Rehydration solution
97th centile
50th centile
3rd centile
60% of expected weight
I can talk
WRITE ON THE CHART
- Any illness e.g. Diarrhoea, measles,
- Admission to hospital,
- Solids introduced,
- Breastfeeding stopped,
- Birth of next child.
Write birth month
Feb March April May June July Aug Sept Oct
Birth month & year
BIRTH to 1 YEAR
1 to 2 YEARS
2 to 3 YEARS
months
Watch the direction of the line showing the child's growth
GOOD
Means the child is growing well
DANGER SIGN
Not gaining weight
Find out why.
VERY DANGEROUS
Child may be ill, needs extra care.
Growth Chart

T 2.5

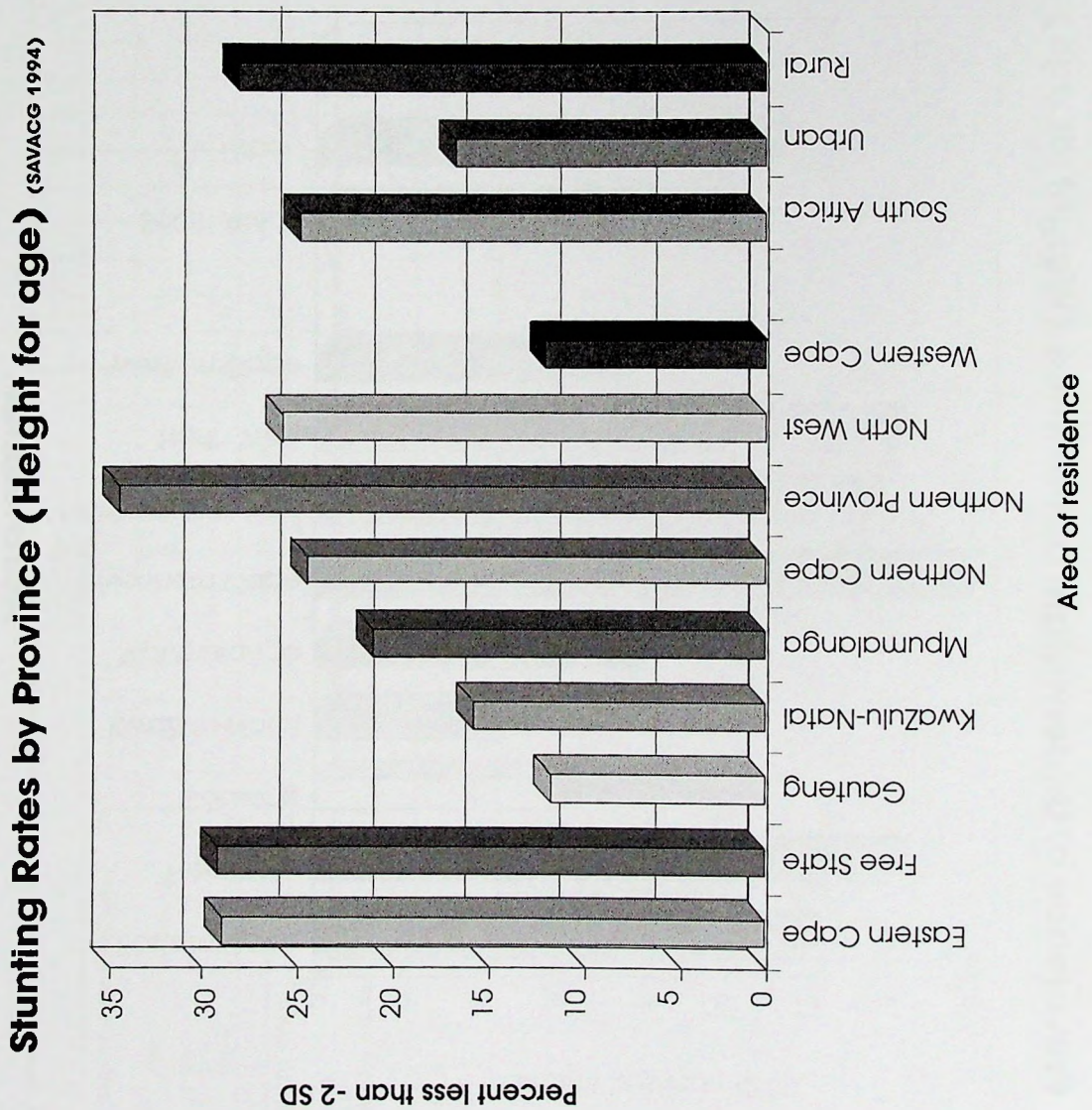
Transparency 2.6

Prevalence of Underweight by Province (Weight for age) (SAVACG 1994)

T 2.6

Transparency 2.7

T 2.7



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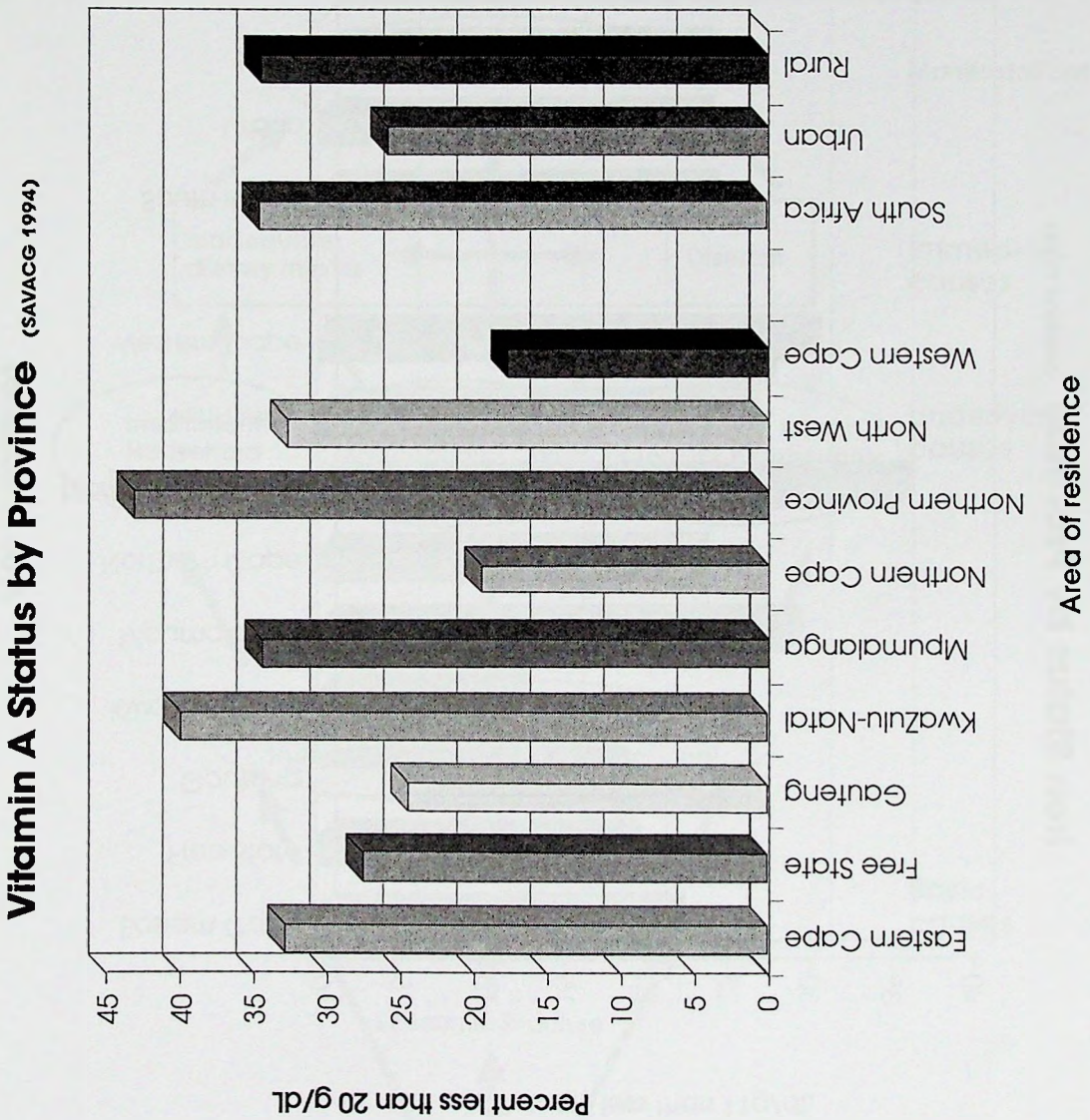

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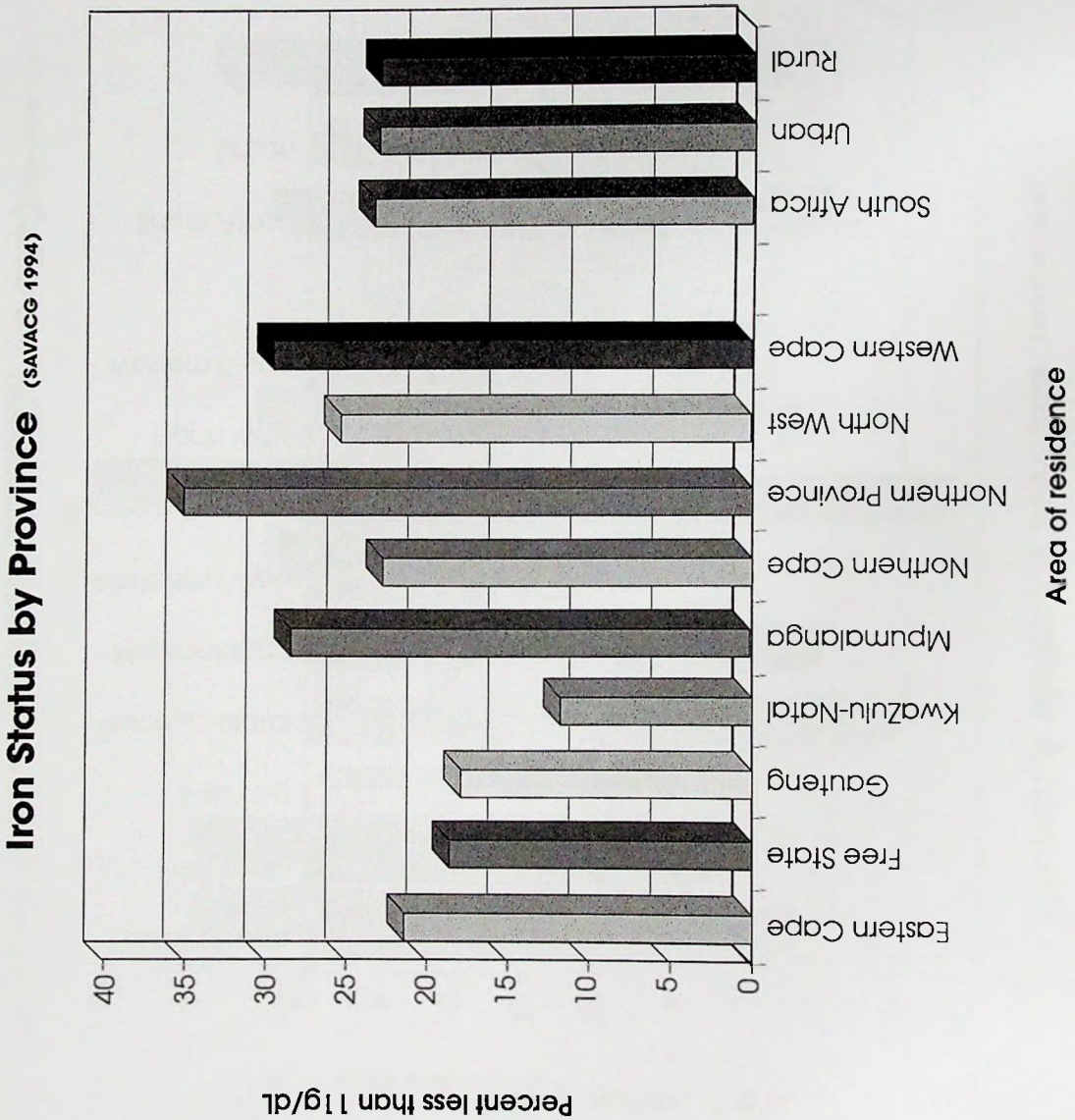
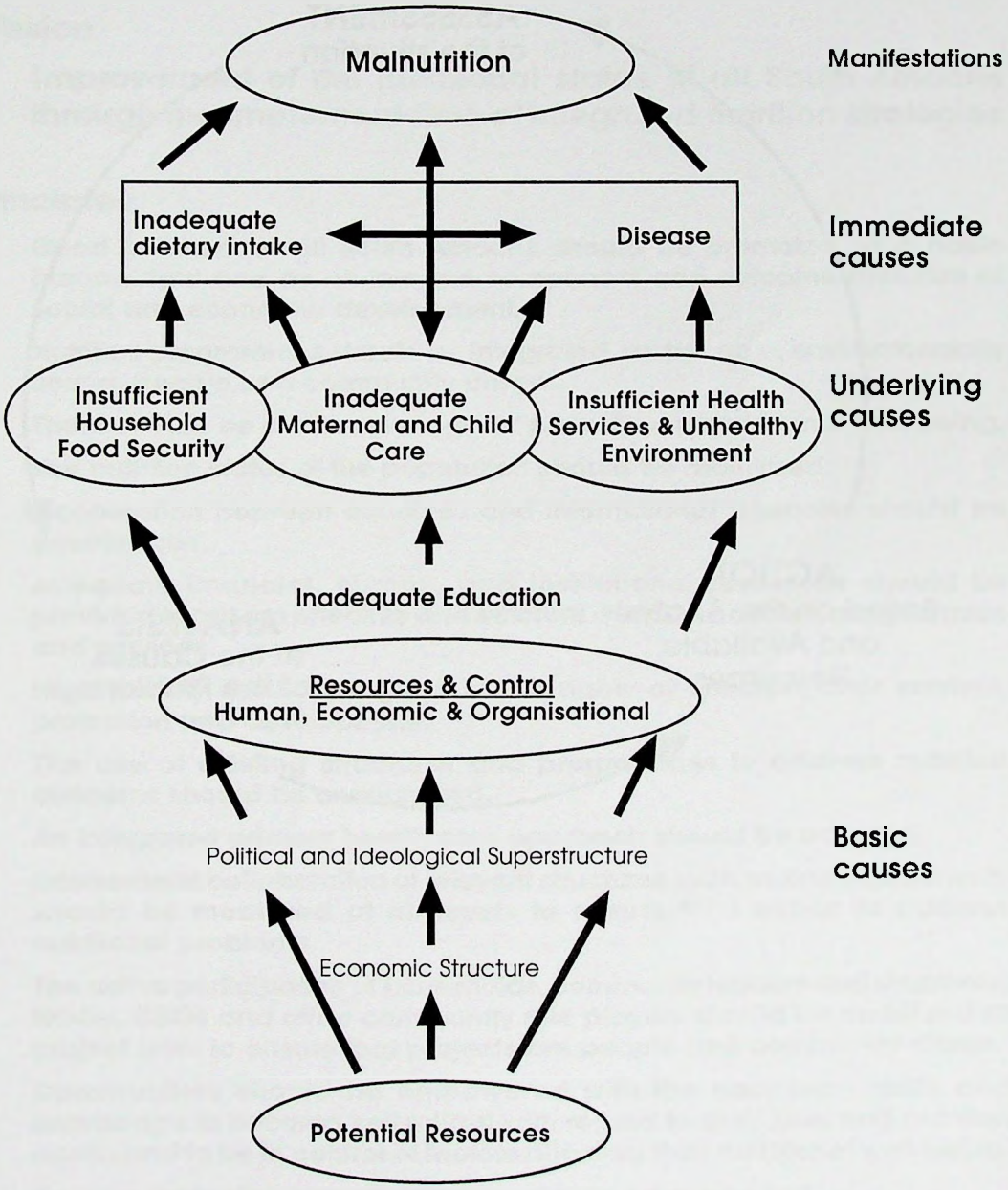


Transparency 2.10

T 2.10

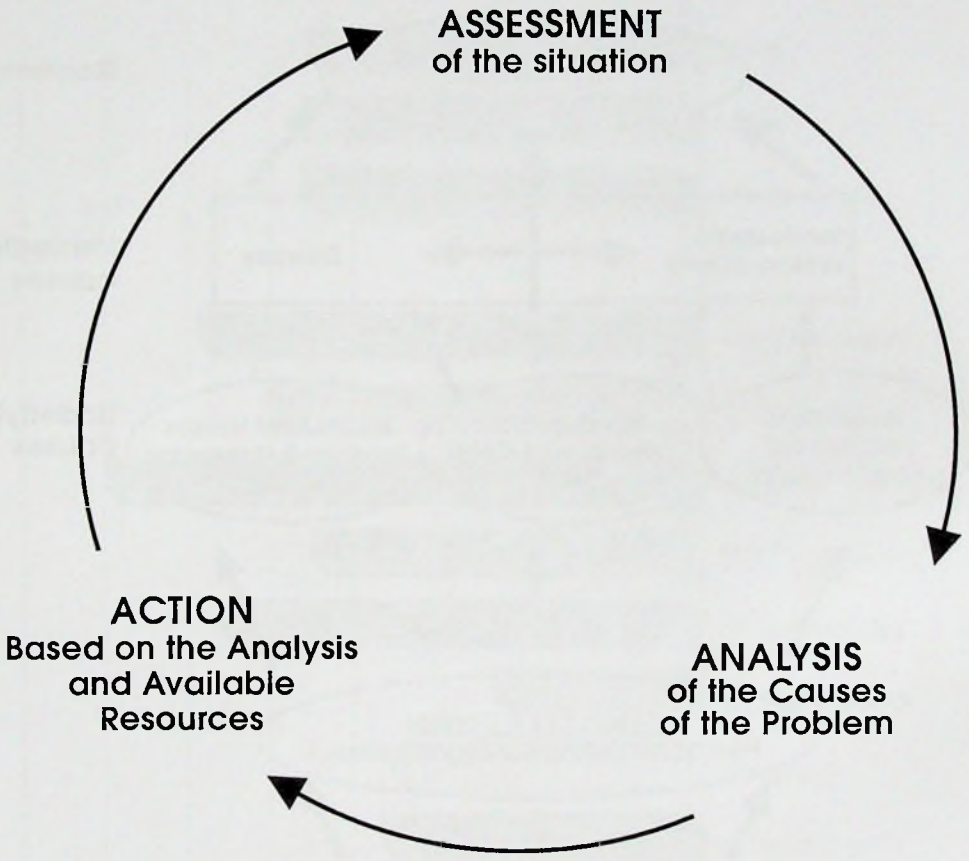
UNICEF Conceptual Framework
Causes of Malnutrition (UNICEF 1990)



Transparency 2.11

T 2.11

Triple A Cycle



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T 2.12

The South African Integrated Nutrition Programme

(Department of Health, 2002)

Vision

Optimum nutrition for all South Africans

Mission

Improvement of the nutritional status of all South Africans through the implementation of integrated nutrition strategies

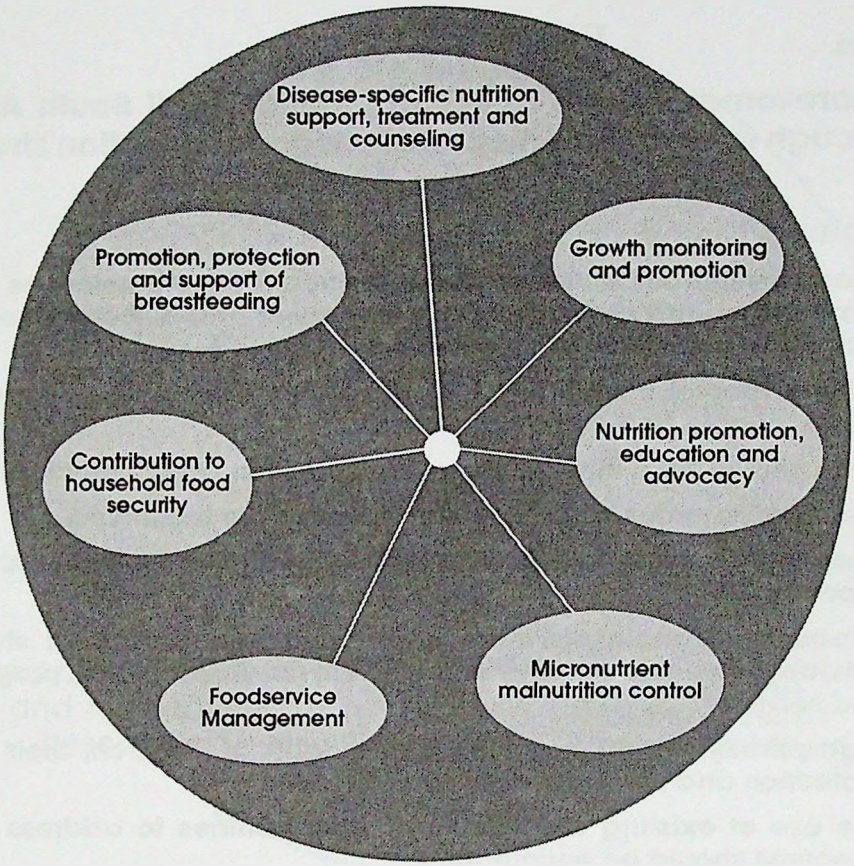
Principles

- Good nutrition for all South Africans should be promoted as a basic human right and as an integral component and outcome measure of social and economic development.
- Nutrition programmes should be integrated, sustainable, environmentally sound, people and community driven
- There should be a clear strategy for promotion of nutritional well being.
- The nutrition status of the population should be monitored.
- Cooperation between countries and international agencies should be encouraged.
- Adequate financial, human, and institutional resources should be provided to ensure effective and efficient nutrition policies, programmes and services.
- High priority should be given to the rights of children, their survival, protection and development.
- The use of existing structures and programmes to address nutrition concerns should be encouraged.
- An integrated primary health care approach should be adopted.
- Intersectoral collaboration of relevant structures such as line departments should be mobilized at all levels to ensure joint action to address nutritional problems.
- The active participation of households, community leaders and structures, NGOs, CBOs and other community role players should be mobilized at project level to ensure that projects are people and community driven.
- Communities should be empowered with the necessary skills and knowledge to become self-reliant with regard to their food and nutrition needs and to be in control of factors affecting their nutritional well-being.
- Coping strategies already in place should be supported.

Transparency 2.13

T 2.13

INP Focus Areas (Department of Health, 2002)



Support systems for the INP
- Nutrition Information System
- Human Resource Plan
- Financial and Administrative System

TOPIC 3 CAUSES OF UNDERNUTRITION

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

- ✔ Explain the relationship between dietary intake, disease and the nutritional status of children;
- ✔ explain the role of food, health and care in determining the nutritional status of children;
- ✔ develop a list of questions to measure feeding, health and caring practices in a community;
- ✔ plan a nutrition situation assessment.

Time 7 hours 15 minutes

Topic overview

Session 1: Disease Control (60 minutes)
Session 2: Dietary Intake (90 minutes)
Session 3: Care Practices (120 minutes)
Session 4: Household Food Security (90 minutes)
Session 5: Nutritional Situation Assessment (75 minutes)

Materials flip chart, pens, slides, cards

Handouts

H 3.1 Case Management of Diarrhoea
H 3.2 Nutrition and HIV/AIDS
H 3.3 Nutritional Values of Local Foods
H 3.4 Control of Vitamin A and Iron Deficiency
H 3.5 Estimated (rounded) Energy, Protein and Other Nutrient Requirements by Age
H 3.6 Case Study on the Importance of Care
H 3.7 Recommended Caring Practices
H 3.8 Checklist for Assessing Individual Children's Feeding Practices
H 3.9 Questions for Assessing Household Food Security
H 3.10 Uses of Nutrition Situation Assessment

Transparencies

T 3.1 Infection - Undernutrition Cycle
T 3.2 Steps for Conducting a Nutrition Situation Assessment
T 3.3 Information Framework

PURPOSE OF THE TOPIC

The purpose of this topic is to clarify the multiple causes of undernutrition in children. This should enable participants to plan a nutrition situation assessment in their own community.

Session 1: Disease Control — 60 minutes

Step1: Activity: Clarify the Session Topic and Identify Important Diseases

a) Explain that the purpose of this activity is to:

- ➤ Identify the major diseases which contribute to, and are caused by, malnutrition. Outline the important curative/rehabilitative, preventive and promotive actions to break the cycle of diseases/ undernutrition.
- ➤ Remind participants that we are dealing with the immediate causes of malnutrition in the conceptual framework.

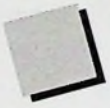
b) Ask

"What diseases or illnesses in your community affect a child's growth?"

The following diseases should come out:

diarrhoea	HIV/AIDS
pneumonia	hookworms/parasite infections
measles	TB

Step 2: Activity: Understanding How Disease and Malnutrition Interact



a) Show **Transparency 3.1** (p. 87) and highlight the interaction between infection and malnutrition: malnutrition leads to infection which in turn leads to more malnutrition until the child either has serious life-long handicaps or dies. Mention that 98% of children who die, do so in developing countries and over 80% of these children die because of this cycle between undernutrition and infection.

b) Ask

"How does malnutrition lead to increased infection?"

The following points should be written down:

Decreased immunity

Decreased ability to undertake preventive behaviours

c) Ask

"In what ways does malnutrition decrease immunity?"

Start with the skin and then mention gut, respiratory lining and finally white and red cells. Discuss how vitamin A, iron, protein etc. deficiency reduces the effectiveness of each of these protective factors.

d) Ask

"How do infectious diseases result in malnutrition?"

The following causes should be written on the flipchart.

Infection leads to:

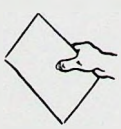
- Increased need for nutrients because the body's metabolic rate (rate of functioning) is increased.
- Decreased intake of nutrients because of suppressed appetite, irritability and vomiting.
- Increased loss of nutrients in the case of diarrhoea and/or vomiting

Step 3: Activity: Management and Prevention of Diarrhoea

a) Ask

"In your setting, which illness in your opinion has the most serious impact on nutrition?"

For most participants in Southern Africa this should be diarrhoea. On average a child has 3 episodes of diarrhoea a year in South Africa; in poorer communities children have more than 3 episodes a year. Point out that the proper management of diarrhoea is critical. Distribute and read **Handout 3.1 Case Management of Diarrhoea** (p. 74). Make sure the following points are emphasised:



- In the short-term rehydration is important and the hydrating fluid can be either be made from packets from the clinic or given as home prepared recipes e.g. Sugar-salt solution, soups etc.

- ➤ Mothers should continue breastfeeding on demand and feeding even when the child has diarrhoea.
- ➤ The child should be given extra high energy feeds after he/she has recovered from the illness

b) Ask the participants in pairs to answer the question:

"How can we prevent a child from getting diarrhoea?"

c) Allow about 10 minutes for this activity and share their responses in plenary. The following actions should be included:

- ➤ Immunization helps to prevent conditions such as measles that leads to diarrhoea
- ➤ Proper growth monitoring to identify and prevent worsening of undernutrition
- ➤ Provision of vitamin A to young children and lactating mothers
- ➤ Promotion of breastfeeding
- ➤ Provision of high energy complementary foods after 4-6 months
- ➤ Education on water, sanitation and hygiene (handwashing, safe storage of food, preparation of fresh food etc.)
- ➤ Improved access to environmental services, especially water and sanitation

Remind participants that many of these preventive actions are also effective against other diseases such as measles, pneumonia and worms. If the nutrition team is serious about preventing malnutrition and illnesses then it must ensure that the above management and preventive actions are performed optimally.

Step 4: Activity: Role of Malnutrition in HIV/AIDS

a) Ask participants what role nutrition plays in HIV/AIDS. Distribute and read together **Handout 3.2 Nutrition and HIV/AIDS** (p. 75).

Session 2: Dietary Intake — 90 minutes

Step 1: Activity: Clarify the Session Topic and Identify Importance of Diet

a) Introduce this session by telling participants that the objectives of this session are:

- To describe the main functions of micro and macro-nutrients
- To define the dietary requirements of individuals with a focus on the young child during the weaning period.
- To describe the composition of common local foods, with an emphasis on their energy and protein content.
- To describe the principles of a rational dietary approach to weaning.

c) Ask participants, in buzz groups, to give reasons why we need food. The following points should come out:

Energy and metabolism (the body's normal functions)

Growth and repair (new cells and tissues being formed and growing)

Activity and development

c) Ask

"What are some of the early signs of a child who is undernourished?"

- Listlessness or inactivity in a young child
- Falling off their growth curve
- More infections
- Poor concentration

Explain that food is converted in the body into various substances that provide energy or "fuel" for the body. This energy is required for the body to work, and it is also necessary to lay down the building blocks of protein, which are necessary for cells to divide and grow.

Explain that energy is required for metabolism (body functions such as breathing or staying warm), growth and activity. Mention that this order is important. If we do not consume enough energy, then the first thing to happen is that activity ceases. Next, growth processes stop, and then finally, body metabolism slows and eventually ceases, leading to death.

Also mention that a child who is already undernourished has suffered from a reduction in normal activity and has progressed to growth faltering. That is, he/she fails to gain weight or grow taller. In children who have been exclusively breastfed on demand this growth faltering will probably occur at around 6 months unless high energy complementary foods are added to the diet.

Step 2: Activity: Determine the Importance of Energy in a Diet

a) Remind participants that two units are usually used to measure energy:

Kilocalorie: This is the energy required to raise the temperature of one millilitre of water by one degree centigrade at sea level.

1 kcal (kilocalorie) = 4.2 kJ. (kilojoules)

b) Explain to participants that foods are made up of nutrients, water and fiber. Mention that there are macronutrients (including carbohydrates, protein and fat) and micronutrients (such as vitamins and minerals). Explain that micronutrients are required by the body in very small amounts.

Mention that energy intake is important because the body's primary requirement is for energy. When energy intake is not adequate, the body uses protein foods for energy needs, rather than for body building and growth, which only occurs if the body's energy requirements are being satisfied. Inadequate energy intake may result in protein deficiency because protein is being used to provide energy. Explain that if you look after the energy, the protein will usually look after itself. In other words, if a diet provides adequate energy, it will usually also provide adequate protein.

c) Using **Handout 3.3 Nutritional Values of Local Foods** (p. 77), give examples of different foods that are commonly eaten in the district. For example, make the point that dry maize meal has little water content and a high amount of energy (370 kcal/100 g). When water is added to dry maize meal to make mieliepap, the energy content (density) of the same weight or volume of food is lowered

very significantly. It is now mainly water and the energy value is now only 51 kcal/100 g. On the other hand, foods such as vegetable oil, margarine, and peanut butter have very high energy content; if these foods are added to the mieliepap, the energy content will be increased. For example, a teaspoon of vegetable oil (5 g) will add about 45 kcal and a teaspoon of peanut butter will add about 30 kcal to any recipe, as well as some protein.

Conclude this discussion by saying that the energy content of fats such as margarine or vegetable oil is a lot higher (9 kcal/gram) than the energy content of carbohydrates and protein (4 kcal/gram). That is why oily foods are often recommended to improve the energy content of foods for young children.

Step 3: Activity: Identifying Micronutrients in the Diet

a) Ask

"Can you give examples of different micronutrients?"

Make sure that participants mention vitamins such as A, B, C and D, and minerals such as sodium, potassium, iron, iodine and zinc.

b) Remind participants of the importance of micronutrients to the body from Topic 2. Stress that we are now realising that even those with deficiency but no clinical signs suffer from more severe episodes of illness and have a greater chance of dying than those who have no deficiency. Tell participants that in this session we will concentrate upon iron and vitamin A.

c) Divide the participants into groups of 5. Assign each group either iron or vitamin A and ask them to complete the following task:

(allow them 20 minutes)

1. What foods are rich in the micronutrient?
2. Which foods increase absorption of the micronutrient?
3. What interventions can improve the micronutrient status of individuals?

d) Share the groupwork in plenary. Summarise by giving out **Handout 3.4** (p. 78) and asking participants to read through it.

Step 4: Activity: Assessing a Common Diet

a) Ask

"What are the factors which affect the dietary needs of a child?"

Explain to participants that a child's dietary needs depend on several factors: his/her age, size, whether he/she is healthy or sick, and his/her levels of activity.

b) Distribute **Handout 3.5 Estimated Energy, Protein and Other Nutrient Requirements by Age** (p. 79). Explain that this handout shows the energy, protein and micronutrient requirements for children of different ages. Ask them if they have any questions about the handout.

c) Ask participants to consider a poor 1 year old child. As shown in **Handout 3.3** (p. 77), this child requires about 1000 kcal/day.

Ask

"What do you think this child usually eats each day?"

Be sure that participants mention breastfeeding. Tell participants that breastmilk is an excellent source of energy, protein, and many micronutrients. Tell them that it contains about 70 kcals/100 ml. In addition it is a sterile and affordable source of food for babies and young children.

Then ask

"How much energy is provided by breastmilk in a day?"

Make sure they mention that it depends on how often a child is breastfed and the amount of breastmilk he/she consume. Explain to participants that studies in developing countries reveal that a one year old child consumes between 500-800 ml of breastmilk each day, if he/she is nursing on demand throughout the day.

Ask participants to calculate how much energy is provided in 500 ml of breastmilk.

Make sure that participants are able to make the following calculation:

70 kcal/100 ml x 500 ml = 350 kcal

d) Ask the participants to do the following calculation:

"If a one-year old requires 1000 kcal/day and breastmilk provides about 350 kcal/day, how much energy is required from other (solid) foods?"

Make sure that participants are able to make the following calculation:

1000 kcal - 350 kcal = 650 kcal

e) Point out that, apart from breastfeeding, maize porridge is most often given at this age. Remind participants that maize-meal has about 370 kcal/100 g in dry weight. Point out that nobody eats dry maize meal. Mention that maize-meal swells when cooked with water. This swelling results in a very bulky, high- volume, low energy density porridge. Soft porridge mainly consists of water.

f) Ask the participants

"What is the volume of a 1 year old child's stomach?"

Explain that children have small stomachs which can only accommodate small amounts of food at any feed. Show the participants a typical 250 ml teacup. Explain that a young child's stomach can only hold the quantity of food that will fit in the teacup.

Step 5: Activity: Calculating Energy Intakes

a) Instruct the participants in pairs to do the following calculation:

"If a child is going to be fed on maize porridge diluted with water, how much is he going to need to fulfil his energy requirements if he is also breastfeeding on demand?"

Referring to **Handout 3.3** (p. 77) show participants that 100 g of porridge contains less than 100 kcal. In order to eat 650 kcal, a one-year old child will need to eat at least 700 g/per day. Remind participants that children of this age have small stomachs and stress that this means that if children are off the breast they must be fed at least five times a day with the maize meal porridge in order to consume his/her energy requirements. If the child is being breastfed he/she will need to have porridge at least 3 and probably 4 times a day.

b) Ask

"How can we overcome this problem of a high-bulk, low energy density diet described above?"

Make sure that the following suggestions are brought up:

- ➤ Fortify the porridge with high energy foods such as oil, margarine, or peanut butter.
- ➤ The child should be encouraged to eat as much enriched porridge as possible three or four times a day.
- ➤ At each feeding breastfeed the child first.

c) Refer participants back to the **Handout 3.5** (p. 79) on the energy, protein, and other nutrient requirements for young children. Point out that a one year old child would need about 10-11 g of protein each day, which is relatively little. A teaspoon holds 5 ml or about 5 grams of egg white. Thus a child needs only about two teaspoonfuls of egg protein or breastmilk protein a day and only about 3 teaspoons of other kinds of protein.

d) Point out that the typical diet of a one year old child contains adequate protein, and that energy deficiency is a more common problem than protein deficiency. This is because young children from poor communities eat bulky, low energy diets: their small stomachs mean that, unless they are fed frequently, they receive little dietary energy. Remind participants that it is the energy content of a diet which is important – if you look after the energy the protein will look after itself.

Step 6: Activity: Formulating Adequate Diets for Different People

a) Ask participants if they have any questions about the information presented. Explain that practices for improving dietary intake of young children will be discussed in the session on caring practices.

b) Divide participants into four groups.

Assign each group one of the following:

1. an eighteen month old child who is recovering from an episode of diarrhoea
2. a seven month old child who is being exclusively breastfed

c) Write up and explain the task:

1. What are the daily energy needs of the particular person?
2. What dietary advice would you give to your particular person to meet his/her energy needs?

Allow 20 minutes for this activity and share each group's response in plenary.

d) Inform participants that an important part of a nutrition assessment is to find out the normal complementary foods given to children in the community and the normal diet of breastfeeding mothers. The information that has been presented to them in this session can help them to analyse whether the diets of young children are adequate in energy content and in micronutrients.

Session 3: Care Practices — 120 minutes

Step 1: Activity: Clarify the Session Topic and Objectives

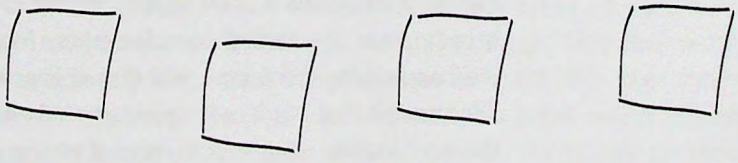
a) Explain to the participants that the purpose of this session is to:

- Identify important care practices which can play a role in reducing malnutrition even in the presence of poverty and poor environmental conditions.
- Learn how to assess such practices in our communities so that we can design interventions.

b) Refer participants back to the conceptual framework for nutrition and remind them that care practices are those behaviours carried out on a day-to-day basis which affect the nutrition, health, and growth of women and children.

Step 2: Activity: Identifying Important Care Activities

a) Divide participants into groups of 6. Distribute **Handout 3.6 Case Study on the Importance of Care** (p. 80) and ask participants 'Write down all the reasons you think have made Sipho undernourished. Write down each reason on a separate card.'



(Allow 25 minutes for this activity)

b) In plenary, ask the first group of participants to place their cards on the wall. Then ask the other groups to place any cards listing reasons that were not given by the first group.

c) After all the reasons have been put on the wall ask the groups to put the reasons into different categories. Allow 10 minutes for this activity.

d) In plenary ask the groups what categories they came up with. At the end of this exercise, the facilitator will summarize the major caring practices that affect the nutrition and health of women and children, organising them according to the 6 types of caring practices listed:

- feeding infants ‹ 6 months ;
- feeding infants 6 - 24 months;
- psycho-social care;
- caring practices for women;
- hygiene;
- home health care.

Step 3: Activity: Assessing Important Caring Practices

a) Write the six categories on the flipchart and ask the participants to choose a category they would like to further explore. Try to encourage an even spread of participants to each of the categories.

b) Give the following tasks to each of the groups

1. Use **Handout 3.7 Recommended Caring Practices** (p. 81), to prepare a 5-10 minute presentation to the rest of the group to inform them more about your particular care practice.
2. Also give a few examples of relevant behaviours and explain why they are important.
3. You have twenty minutes for this task.

c) Instruct the group to formulate a checklist in order to assess current practices in the community. Give them the following task:

1. What would you like to know about the caring practice in your community?
2. How will you collect these data?
3. Put your suggestions in a table like this:

(Allow 45 minutes for this activity)

Care Practice	What would you like to know?	How will you collect it?
Exclusive breastfeeding	What proportion of women exclusively breastfeed at three months?	Interview mothers who bring their children for third DTP immunisation at 12 weeks
	What proportion of women exclusively breastfeed at 6 months?	

d) Ask each group to present their checklist to the plenary and discuss. Encourage participants to question the other groups about their ideas. Ensure that the methods for collecting the data are within the capacity of the team to use and appropriate for the information required.

e) Distribute **Handout 3.8 Checklist for Assessing Individual Children's Feeding Practices** (p. 83) to participants. Explain that these are checklists that have been developed by others for collecting information in order to assess caring practices. Ask participants to go back into their groups and review these handouts and compare them to the lists they developed. Discuss the similarities and differences between these lists and ask them to revise their checklists if the handouts have useful ideas.

Step 4: Activity: Conclusion of Session

a) Conclude this session by reminding participants that caring practices are important, and that during this session good caring practices have been identified as well as barriers and resources for carrying them out in the communities where they work. Explain that when they go to the field to collect information, they can use these checklists to identify practices, barriers to them, and resources for improving them.

b) Tell participants that methods for collecting this information will be discussed in Topic 4. After Topic 4, participants may want to revise their checklists to utilise different data collection methods.

Session 4: Household Food Security — 90 minutes

Step 1: Activity: Introducing the Session

a) Introduce the session by outlining the objectives:

- To define the term household "food security"
- To outline the consequences of poor household food security
- To identify the different components which make up household food security
- To produce a checklist to assess household food security

Step 2: Activity: Defining Household Food Security (HHFS)

a) Split the participants into groups of four. Ask the groups to brainstorm:

"How would you describe a household which has household food security?"

b) Share their responses in plenary and summarise with the following definition:

A household is food secure when it has both physical and economic access to adequate food of adequate quality for all its members and when it is not at undue risk of losing such access.

c) Ask

"Is South Africa, as a country, food secure?"

The answer is: "Yes since it produces enough food to feed everybody and in fact can even afford to export food."

d) Ask

"Is every household in South Africa food secure?"

"Why not?"

e) Point out that HHFS depends not only on the adequate availability of food but also on access to food. For example, South Africa as a country is food secure since it is an exporter of food, yet many households do not have enough food. Similarly a household can have enough resources to buy food but not all members of the household will be food secure since not all of them will have access to the resources or the food, e.g. women or girls are the last to eat. The definition includes the different reasons for not having HHFS: lack of resources (land, agricultural inputs etc.) to produce sufficient food, and/or lack of purchasing power to buy food, and/or lack of control over food allocation.

f) This definition also highlights the importance of continuous security - some families can have HHFS during and immediately after the harvest season but then lose their HHFS in the long winter season. These families are said to be vulnerable. Explain that some communities do not have adequate access to food all year round due to seasonal factors, varying climatic and weather conditions, variations over time or changes in economic conditions.

Step 3: Activity: Consequences of Poor Household Food Security

a) In the same groups of 4 ask

"What are the consequences of poor household food security for the family and individual?"

The following consequences should come out:

Human suffering (i.e. malnutrition, hunger)

Increased infections and treatment costs

Reduced productivity

Lowered school attendance

Lowered school performance

Poorer care practices

Increased erosion of land

Make the point that these things can themselves lead to reduced food security (i.e. reduced productivity leads to lower wages) so a vicious cycle is set in process.

Step 4: Activity: Improving Household Food Security

a) Now set each of the groups the following tasks:

What are the ways in which families achieve household food security?

(You have 25 minutes)

Assign each group one of the following families in order to generate a wide range of coping strategies:

female headed household

grandmother living with grandchildren

family with an alcoholic

traditional male headed household

If the groups are unclear, here are some examples of ways in which families achieve household food security:

Grow crops

Exchange produce

Purchase cheaper foods

b) Share their responses in plenary. Here are 4 categories in which the examples could be divided:

- Production of crops for household consumption
- Food purchasing
- Food storage and preparation
- Food habits and related beliefs

c) Point out that it is useful to establish the importance of each of these ways of obtaining HHFS for each community. For example do most people grow or buy most of their food? Does this change during the year? This is useful for planning interventions to improve HHFS and to monitor HHFS.

Step 5: Activity: Assessing Household Food Security

a) Keep participants in the same 4 groups and assign them one of the following 4 categories

Production of crops for household consumption
Food purchasing
Food storage and preparation
Food habits and related beliefs

b) Give the groups the following task:

1. What information would you like to have in order to make an assessment of the ways in which families ensure household food security?
2. What information would you need to establish how food secure households are HFS in a community?

(You have 30 minutes for this task)

c) Use **Handout 3.9** (p. 85) to check that they are thinking of the right type of questions. Share their responses in plenary and distribute **Handout 3.9** (p. 85).

d) Inform participants that they should add any of their questions that are not in the handout and this can form the basis of an assessment of HHFS in their district.

Step 6: Activity: Ways of Improving Household Food Security

a) In buzz groups ask what measures they think can be taken to improve household food security at the community and household levels.

b) Write them on the flipchart. Here are some examples:

Increasing food production for household consumption

promotion of locally cultivatable, energy dense foods

purchasing of appropriate, cost effective foods

bulk purchasing

better household storage of food

address food habits and beliefs that adds to vulnerability of women and children

c) Tell the participants to bear this example in mind for later when they will be using some of these assessment techniques to answer some of the questions from **Handout 3.9** (p. 85).

Session 5: Nutrition Situation Assessment — 75 minutes

Step 1: Activity: Introduction

a) Remind participants of the Triple A cycle and that the first A stands for assessment. So far they have been learning about the most important causes of malnutrition and ways of measuring them. This session will now bring all this together so that the participants will be ready to perform a nutritional situational assessment.

Step 2: Activity: Uses and Steps in Conducting a Nutrition Situation Assessment

a) Ask

"Why is it important to do a nutrition situation assessment before we start our interventions?"

b) Write all the responses on the board and then distribute **Handout 3.10** (p. 86) and see which uses have been stated and which are missing.

c) Divide the participants into groups of **4**. If possible, participants from the same area should be in the same group. Ask them to complete the following task:

1. Write down the steps which are needed to conduct a nutrition situation assessment
2. Start with the need to form a district nutrition team

(You have 10 minutes to do this task)

d) Share their responses in plenary and show **Transparency 3.2 Steps for Conducting a Nutrition Situation Assessment** (p. 88) and summarise the steps.

Step 3: Activity: Producing an Assessment Framework

a) In the same groups of **4** ask them to complete the following task:

1. You have been invited by a neighbouring district to advise them on what nutrition interventions are needed in their district. Write down what information about the district you would like to have before you can give any advice about interventions.
2. For example, you might like to know how much under or over nutrition there is and whether the population is living in urban or rural areas.

(You have 20 minutes for this task)

b) Walk around to the groups and ensure that they are on the right track by referring to the **Transparency 3.3 The Information Framework** (p. 89).

c) Ask each group to write down one part of the framework on VIPP cards and stick it on the wall for everybody to see.

d) Rearrange the cards according to **Transparency 3.3** (p. 89).

Step 4: Activity: Organising a Nutrition Situation Assessment

a) In the same groups of 4 ask each group to take responsibility for a part of the framework. Give each group the following task:

1. For your part of the framework write down: what information is already available, and what information needs to be collected.
2. For the information that needs to be collected, where will you get this information and how?

(You have 25 minutes)

b) Ask each group to present their findings.

c) Now ask the groups to fill in the following table:

Information to be collected	Who will collect the information	When will they collect the information

d) Explain to participants that the next few sessions will concentrate on techniques which will help them in collecting, analysing and reporting the information required to complete a situational assessment. At the end of these sessions the team should have completed a NSA which can then guide them in planning for nutrition interventions.

Handout 3.1

CASE MANAGEMENT OF DIARRHOEA

A child suffering from diarrhoea and vomiting becomes malnourished because it loses water and nutrients which are essential for proper growth and functioning of the body. Lost body water must be replaced at once. Replacing the lost water and salt is called rehydration.

There are two types of oral rehydration drink that caretakers can use. One comes in a packet which you can get from the nearest clinic or hospital. It is called oral rehydration salts. This salt is dry like powder and it must be mixed with clean water.

The other type can be prepared at home using ordinary salt and sugar. The child can also be given other home made fluids such as thin porridges, fruit juice and soups. Continued feeding, especially breastfeeding, is very important in managing diarrhoea. The mother should use a clean cup and spoon to feed the child or give the rehydration drink.

In the past, we used to withhold food to rest the gut but we now know that this is harmful. The gut needs to be nourished during episodes of diarrhoea. Milk can also be given safely to a child – most diarrhoea is not due to lactose intolerance (in fact breastmilk has a lot of lactose).

From the onset of the first episode of diarrhoea or as the mother is bringing the child to the health centre, she should continue to give liquids and food. After the child has stopped having the diarrhoea the family should be informed that the child needs greater amounts of energy-rich food in order for her to catch up her growth. It is also important that they bring the child to be weighed again to check that she has regained her normal growth.

Handout 3.2

NUTRITION AND HIV/AIDS

Background

People with HIV/AIDS often suffer from malnutrition, either because of the symptoms of their infection or because their diets are deficient in energy, protein, vitamins and other nutrients.

The symptoms of HIV/AIDS infection that affect nutrition include fever, diarrhoea, mouth sores and infection, nausea, vomiting, weakness, and general loss of appetite. These conditions affect the consumption and absorption of food and nutrients as well as their retention. Severe weight loss and body wasting (loss of muscle) are commonly recognized symptoms of full-blown AIDS.

Malnutrition can also affect the progression of HIV to AIDS, and it may even affect transmission. Good nutrition enhances the ability of our immune systems to fight infection and to recover from bouts of illness. Vitamins A, B, C, D, and E as well as several minerals (e.g. zinc, selenium) are all needed for our immune systems to work properly. Deficiencies in any of these may affect the progression of disease.

Vitamin A deficiency, in particular, has been associated with increased risk of HIV infection (transmission) because of its impact on the mucosal linings of the body (e.g. gut, genital tract, mouth, etc.). When mucosal linings are broken, or not intact, there is a greater chance that the HIV will enter into the body. Vitamin A deficiency is also associated with other conditions such as prematurity, low birth weight, and the concentration of virus in breast milk, which are also risk factors for the transmission of HIV from infected mothers to their babies.

The benefits of nutritional supplementation for people with HIV/AIDS have not been proven conclusively. Adequate intake of food (energy, protein, micronutrients) is important to maintain the body's health. Multivitamins (Amegavitamins) should not be taken therapuetically (in high doses) to prevent disease progression since some vitamins are beneficial whereas others can cause additional problems.

Practical advice on nutrition for people with HIV/AIDS

Health providers should assess the nutritional status of all clients suspected to have HIV/AIDS and related illnesses. This assessment should ascertain:

- ➤ body weight and if there have been changes recently (e.g. weight loss)
- ➤ dietary intake and if it is sufficient in energy, protein and micronutrients
- ➤ appetite and difficulty eating
- ➤ opportunistic infections, particularly those that will affect nutrition (diarrhoea, fever, oral/ mouth sores, etc.)
- ➤ current medications that may affect appetite; nausea, vomiting, etc.

Handout 3.2

- food and personal hygiene, water safety, basic sanitation
- other practices that will affect healthy living (e.g. alcohol, drug, or tobacco use)

This nutritional advice may be given to people who are HIV+ but do not have symptoms of AIDS:

- encourage healthy living (avoid alcohol, smoking, unsafe sex);
- promote good dietary practices:
  - regular meals
  - hygienic food preparation to avoid contamination and diarrhoea
  - varied diets to include energy, protein, micronutrient-rich foods
  - continued feeding during periods of illness-related appetite loss
  - nutritional supplements (e.g. vitamins, food supplements) can be given to correct specific deficiencies (but megavitamins should not be given otherwise)
- ensure immediate treatment for all opportunistic infections, particularly those that affect appetite and oral health (e.g. oral thrush).

For people with AIDS the same advice holds, but for patients who are experiencing wasting, extreme loss of appetite, nausea, vomiting, or other side-effects from treatment of opportunistic infections:

- give him/her food that he/she prefers and can eat easily;
- increase the frequency of meals, provide small portions of food several times a day;
- give plenty of water to prevent dehydration;
- provide a varied diet which includes energy, protein, and micronutrient-rich foods;
- avoid soft-drinks, alcohol, spicy foods, very sweet foods, and tobacco.

Adapted from: Piwoz EG, Preble EA. HIV/AIDS and Nutrition:
A review of the literature and recommendations for nutritional care and support in Africa.
Washington DC: Academy for Educational Development, 2000.

Handout 3.3

NUTRITIONAL VALUES OF LOCAL FOODS
(per 100 g of edible food) (MRC Food Composition Table, 1991)

Food	Water (g)	Kcal	Protein (g)	Fat (g)	Carbo-hydrate (g)
Maize Meal (dry)	13	374	9.0	3.5	80
- porridge	79	88	2	0.6	19.5
- soft porridge	88	51	1.2	0.3	11.5
Starches					
- sweet potato	73	105	1.7	0.3	21
- irish potato	77.5	86	1.7	0.1	18.5
Pulses/seeds					
- peanut butter	1.4	588	24.6	50	15
- sugar beans	63	131	7	0.5	19.5
- lentils	69.5	116	8.5	0.2	14
Vegetables					
- pumpkin	94	20	1	0.3	3
- spinach	91	23	3	0.3	1.6
Fruits					
- banana	74	92	1	0.5	22
Fats and Oils					
- hard margarine	15	730	0.3	82	1
- sunflower oil	0	884	0	100	0
Animal					
- beef mince	52.5	286	27	19	0
- eggs	75	152	12.5	10	1.2
- milk	88	62.5	3.2	3.4	5
Breastmilk	87.5	71	1	4.4	7

Handout 3.4

CONTROL OF VITAMIN A AND IRON DEFICIENCY

Foods with High Iron Content
Meats
Egg yolk
Milk
Fish
Dark green vegetables
Legumes (lentils, beans etc.)
Breastmilk

Promoters of Iron Absorption
Vitamin C
Vitamin A
Acid sauces (tomato sauce etc.)
Heam-iron
Increased cooking of phytate rich foods

Inhibitors of Iron Absorption
Phytate
Tannin
Fibre

Micronutrient Interventions to Address Iron Deficiency
Supplementation
Food fortification
Dietary diversification
Improved dietary preparation
Improved hygiene, environmental sanitation
Early detection and treatment of infectious diseases
Increase breastfeeding

Foods with High Vitamin A Content
Egg yolk
Yellow/coloured vegetables/fruits
Dark green leafy vegetables
Legumes (lentils, beans, etc.)
Meat products
Breastmilk

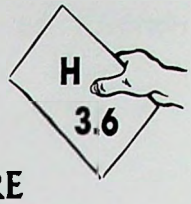
Micronutrient Interventions to Address Vitamin A Deficiency
Improved dietary intake
Supplementation
Food Fortification
Immunisation
Early detection and treatment of infectious diseases
Increase breastfeeding

Handout 3.5

ESTIMATED ENERGY, PROTEIN AND OTHER NUTRIENT REQUIREMENTS BY AGE

Nutrient	Age in months			
	0 up to 6	6 up to 9	9 up to 12	12 to 24
energy (kcal/day)	400-550	680	830	1100
protein (g/day)	9.1	9.1	9.6	10.9
vitamin A	375	375	375	400
Iron (mg/day) - low bioavailability (i.e. non-animal sources)	21	21	21	12
- high bioavailability (i.e. animal sources)	7	7	7	4

Handout 3.6



CASE STUDY ON THE IMPORTANCE OF CARE

In one village we visited a rich family with a severely malnourished child called Sipho. He was 28 months old, but looked much smaller for his age. He was very weak and had thin legs, a big head and a big tummy. He had just begun to walk and did not yet talk.

When we entered the house, Sipho was sitting on the ground. The house was dirty and untidy with unclean, stinking beds. It was apparent that Sipho was not bathed regularly.

Sipho's mother, Thuli, was a beautiful woman but with a tired look in her eyes. She was rather lethargic and looked pale. Thuli virtually had no time for Sipho since she had been very busy with post-harvest sorting of crops. Peanut plants had been brought in from the field on the previous day and it was Thuli's job to clean the plants and separate the nuts from the plants. She was also responsible for all the domestic chores. We watched Thuli serve breakfast, wash dishes, cook for family members and guests. Whenever she sat down to catch her breath, she was sharply rebuked by her mother-in-law, who lived in the household. While she was busy, the younger child cried until he was completely worn out and fell asleep. When we asked why nobody was brought in to help Thuli, the mother-in-law just laughed out loud.

Sipho sat down to eat a meal with his father who said that Sipho normally had a good appetite. They ate mealie-meal with a chicken stew and then mashed banana. Thuli, however, only had some mealie-meal with gravy. When asked, she said that she was on a special diet as her breast fed child was ill. She had been on such a restricted diet since becoming a mother. By asking her questions, we found out that she did not believe in benefits of such a diet. Yet she did not feel that she could go against the social norms and beliefs.

When Sipho finished his meal, he sat in the courtyard and started to eat peanuts that he had picked up off the dirt with his dirty hands. Nobody bothered to wash the peanuts for him or to stop him from eating them.

From the open-ended interviews and discussions with the parents we discovered that Sipho was born with low birth weight. After two months it was felt that Thuli did not have enough breastmilk for him and so Sipho was bottle fed with some Nestum as well. At eleven months Thuli gave birth to another son and Sipho was weaned completely, in spite of his poor health. There was no special diet for Sipho and he was left alone to eat what ever he liked from the family pot.

Handout 3.7

RECOMMENDED CARING PRACTICES

FEEDING INFANTS < 6 MONTHS

- Initiate breastfeeding within about one hour of birth.
- Establish good breastfeeding skills (proper positioning, attachment, and effective feeding).
- Breastfeed exclusively for about the first six months.
- Practice frequent, on-demand breastfeeding, including night feeds.
- Continue on-demand breastfeeding and introduce complementary foods beginning around six months of age.
- In areas where vitamin A deficiency occurs, provide lactating women with a high-dose Vitamin A supplement (200,000IU) as soon as possible after delivery, but no later than eight weeks post-partum to ensure adequate vitamin A content in breastmilk.

FEEDING INFANTS 6-24 MONTHS

- Continue frequent, on-demand breastfeeding, to 24 months and beyond.
- Introduce complementary foods by six months of age.
- Increase food quantity as the child ages, while maintaining frequent breastfeeding.
- Increase complementary feeding frequency as the child ages, using a combination of meals and snacks.
- Gradually increase food thickness and add variety as the child ages, adapting the diet to the child's requirements and developmental abilities.
- Diversify the diet of both the breastfeeding mother and the child by including fruits, vegetables, fortified staple foods, and/or animal products to improve quality.
- Practice active feeding, especially during and after illness, to regain lost weight.
- Practice good hygiene and proper food handling.
- Offer breastmilk before complementary feeds.

PSYCHO-SOCIAL CARE

- Respond to young children's behavioral cues and developmental milestones with appropriate actions.
- Touch, hold, and talk to young children regularly.
- Encourage children to explore their environment while protecting them from harm.
- Prevent and protect children from violence and physical and emotional abuse.

CARING PRACTICES FOR WOMEN

- Provide women and girls with equal access to food, health care, information, education, and other household resources as men and boys.
- Encourage and support efforts to delay the age of first pregnancy and practice birth spacing (2-3 years between pregnancies).
- Facilitate antenatal care and safe birthing practices.
- Encourage pregnant and lactating women to eat extra food each day, and to be allowed a period of postpartum rest, and support them in efforts to reduce physical activity and other strenuous work before and after child birth.
- Prevent and protect women from physical and emotional abuse, and support efforts to enhance women's self-confidence and esteem.
- Provide women with information and other resources that will increase their decision-making role and power over food, health, and other care issues in the family.
- Establish women support groups.

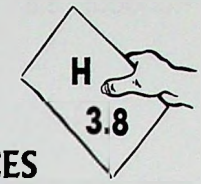
HYGIENE

- Store foods safely (raw grains and cooked food) to reduce food losses.
- Cook foods thoroughly and feed them as soon as they are cool enough to eat.
- Use safe water sources and cover all stored water.
- Wash dishes and all cooking utensils before using them.
- Wash hands with soap after defecating and handling children's waste, and before cooking and feeding young children.
- Keep children clean by bathing them regularly, clipping their nails, and washing their hands.
- Use sanitary facilities to dispose of children's and adults' faeces.
- Keep children's play areas clean and free of human and animal faeces and other contaminants.

HOME HEALTH CARE

- Prevent illness with good hygiene, environmental safety, and feeding practices.
- Continue breastfeeding and practice active feeding during and following illnesses.
- Seek care for children with persistent symptoms that do not improve.
- Seek care without delay for children with high fever, rapid breathing, frequent vomiting, listlessness, and bloody stools.
- Weigh young children monthly, plot their weights on growth cards, and complete their immunisations by 1 year of age.

Handout 3.8



SAMPLE CHECKLIST FOR ASSESSING INDIVIDUAL CHILDREN'S FEEDING PRACTICES

Child Age: _____months

Practice	Yes	No	How will data be collected?	Comments
1. Breastfeeding				
a. Still breastfed				
b. On demand (8-12 times/day minimum)				
c. Night feedings (if <12 mo)				
2. Complementary Feeding Frequency (meals + snacks)				
0-5 mo - breastmilk only (exclusive breastfeeding)				
6-8 mo - 2-3 times/day				
9-11 mo - 3-4 times/day				
12-24 mo - 4-5 times/day				
3. Complementary Foods Texture and Consistency				
6-8 mo - mashed, semi-solid				
9-11 mo - finger foods + snacks				
12-24 mo - eating family diet				
4. Complementary Food Energy Density (from recall estimations)				
oil, margarine, peanut butter added to maize meal porridge				
5. Diet Quality				
Vitamin-A rich foods daily				
Meat, poultry, or fish daily				
Fortified foods consumed				

Handout 3.8

6. Active Feeding				
Adult care giver feeds directly (if <12 mo)				
Adult assists feeding (if 12 mo or older)				
Care giver encourages child to eat more				
Care giver varies recipes to child's tastes/likes				
Care giver feeds slowly and patiently				
Care giver does NOT force feed				
7. Hygiene				
Care giver washes own/child's hands				
Foods served immediately (not stored)				
Clean utensils used				
Feeding bottles NOT used				
8. Feeding During Illness				
Breastfeeding increased				
Care giver offers favourite foods patiently, encourages child to eat				
9. Feeding After Illness				
Breastfeeding continued				
Complementary feeding frequency increased				
Complementary foods quantity increased				

Handout 3.9

QUESTIONS FOR ASSESSING HOUSEHOLD FOOD SECURITY

Food availability and access

How do households obtain their food? What do they produce?

What do they purchase? Other sources?

Has this situation changed in the last years? How? Why?

Production for Household Consumption

What foods are produced by the household?

How many months do staples last?

During which months do they eat the other foods?

What are the problems encountered?

What are the periods of food scarcity? For which foods?

What efforts do people make to overcome these?

Food Purchasing

How much of the household income is spent on food?

What are the foods purchased? Which are considered as essential?

Which as luxury? Why?

How have purchasing habits changed in recent years? Why?

Food Use

How many meals do the different households members eat a day? In which season?
What do they eat? Any snacks in between? Do children eat differently?
How often do they prepare meals for young children?

How do eating patterns change in times of scarcity?

How is food obtained in such cases?

If the household had more resources what foods would they like to eat more or more often?

What foods are considered especially good or to be avoided in certain circumstances?

What was the normal diet for children 20 years ago? What are the main differences today?

Handout 3.10

USES OF NUTRITION SITUATION ASSESSMENT

The South African National Integrated Nutrition Programme (INP) has outlined a comprehensive strategy to address the underlying socio-economic, environmental, educational and health related causes of undernutrition. The major aim of the INP is to make a shift from a near-total reliance on feeding programmes to providing more comprehensive community based nutrition programmes.

The causes of malnutrition are multiple, as can be seen from the UNICEF conceptual framework. It is obvious that if we are to respond to the challenge of malnutrition effectively an intersectoral response is necessary. Initiating a programme around fighting malnutrition can serve as a model of intersectoral collaboration.

Performing a nutrition situational assessment (NSA) is an important first step in implementing the INP and can serve to:

- Pull together the different members of the district health management team (e.g. nutrition programme manager, MCH programme manager, clinic supervisors, school health co-ordinator etc.).
- Bring together the intersectoral team and increase its appreciation of the important role that all sectors play in fighting malnutrition.
- Be the first step in the triple A cycle (Assessment, Analysis and Action).
- Be an advocacy tool to persuade policy makers and funders of the importance of the problem and the validity of your implementation plans.
- Assist in the future monitoring and evaluation of the INP.
- Assist in the development of a district health system. The NSA should fit into the broader district situational assessment and could even be a model for the rest of the district to follow.

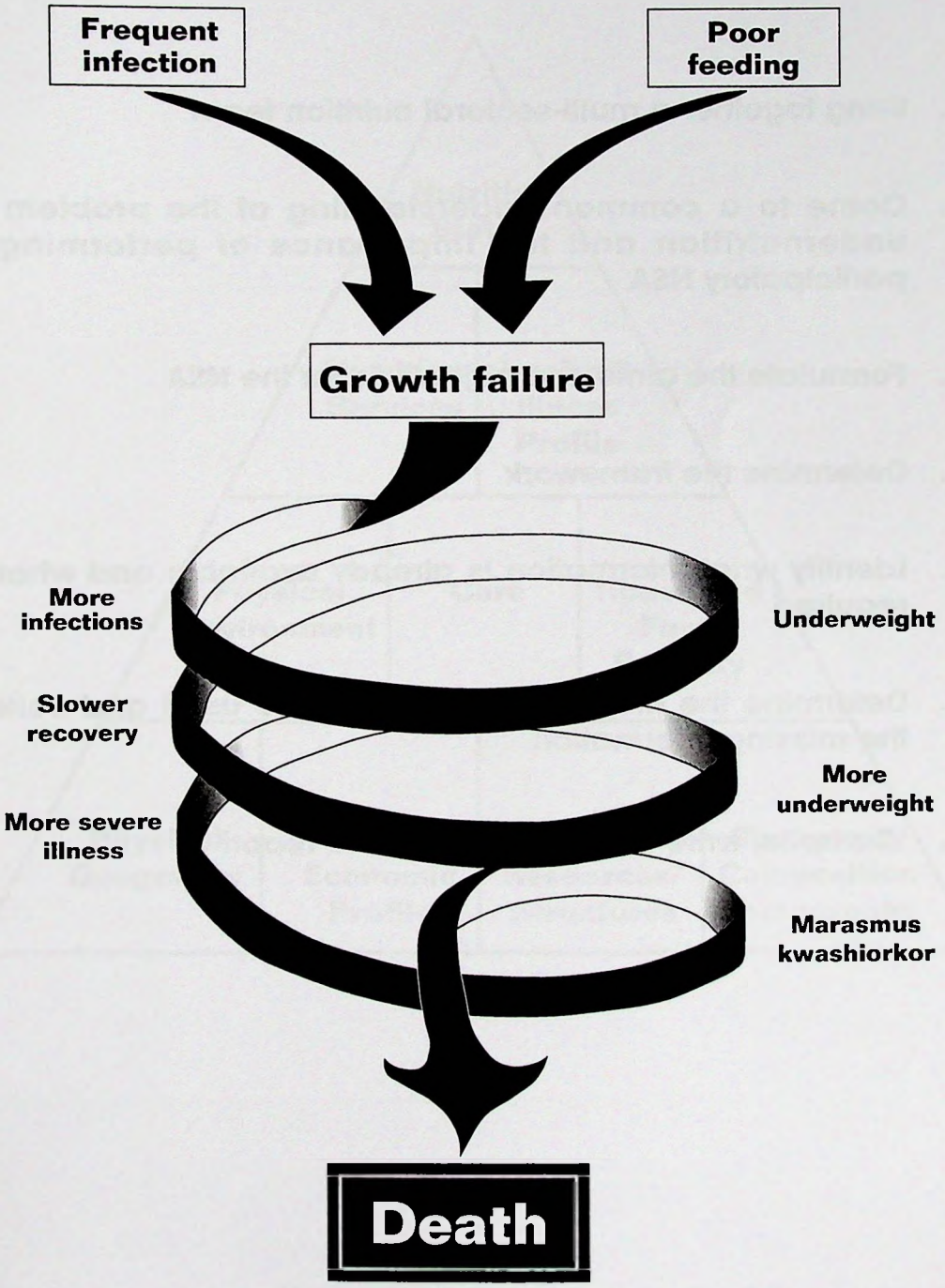
Furthermore, by ensuring that participatory approaches are used the NSA can:

- Serve as an educational process for both the district nutrition team and community as they come to realise the causes of malnutrition and set about combating them.
- Promote the participation of different community groups (in particular, women, poor people, young people).
- Contribute to community empowerment.

Transparency 3.1

T 3.1

Infection - Undernutrition Cycle



Transparency 3.2

T 3.2

Steps for Conducting a Nutrition Situation Assessment

1. **Bring together a multi-sectoral nutrition team**

2. **Come to a common understanding of the problem of undernutrition and the importance of performing a participatory NSA**

3. **Formulate the aims and objectives for the NSA**

4. **Determine the framework**

5. **Identify what information is already available and what is required**

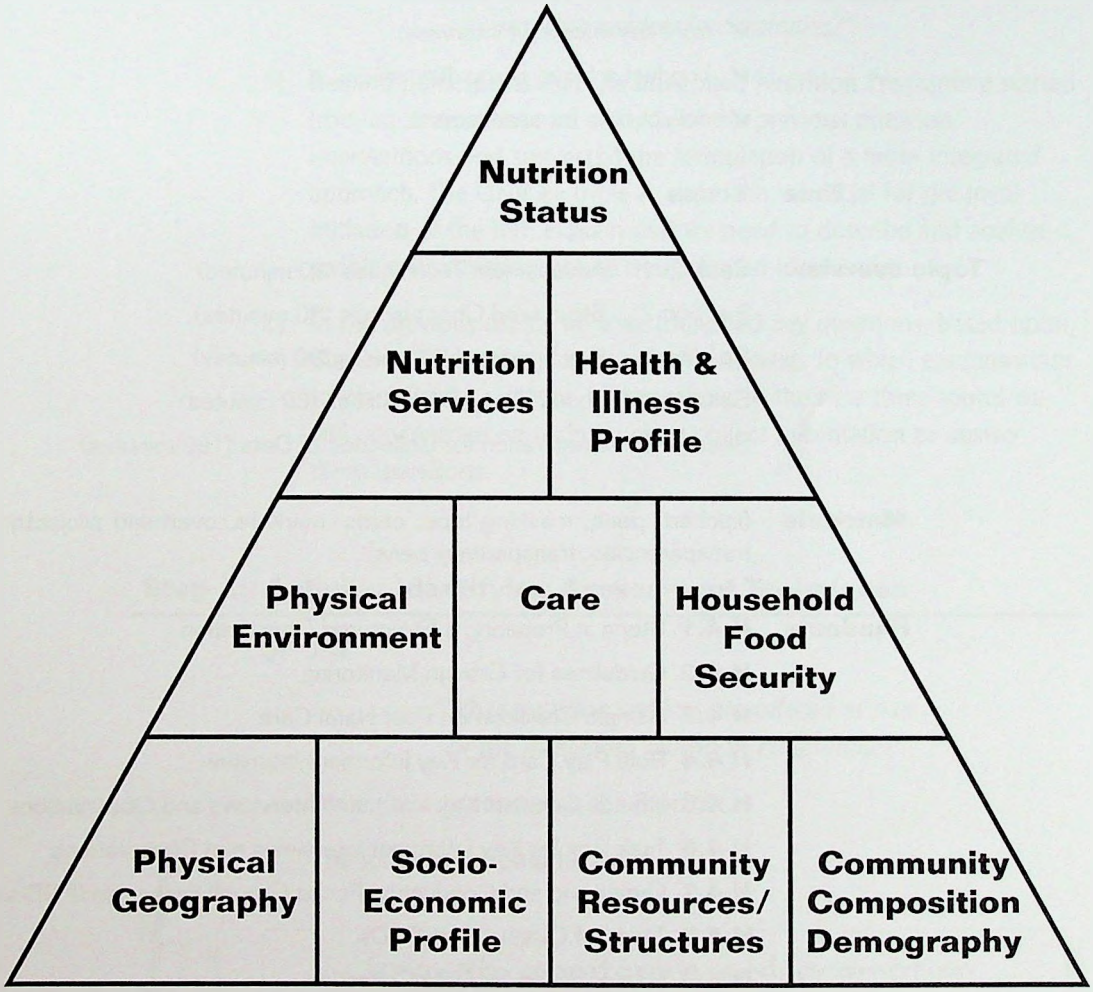
6. **Determine the methodology that will be used and collect the missing information**

7. **Compile, write and disseminate the report**

Transparency 3.3

T 3.3

Information Framework



TOPIC 4 TECHNIQUES FOR ASSESSMENT OF NUTRITION SERVICES AND PROGRAMMES

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

- ✔ do a structured observation;
- ✔ do a key informant interview;
- ✔ conduct a focus group discussion;
- ✔ collect data for assessment.

Time 7 hours

Topic overview

Session 1: Assessment Techniques (30 minutes)
Session 2: Structured Observations (60 minutes)
Session 3: Key Informant Interviews (90 minutes)
Session 4: Focus Group Discussions (60 minutes)
Session 5: Preparation for Collection of Data (180 minutes)

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

Handouts

H 4.1 Steps in Preparing a Structured Observation
H 4.2 Guidelines for Growth Monitoring
H 4.3 Sample Checklist on Post Natal Care
H 4.4 Role Play Card for Key Informant Interview
H 4.5 How to Conduct Key Informant Interviews and Observations
H 4.6 Task Box for Key Informant Interviews and Observations
H 4.7 Organising and Conducting Focus Group Discussion (FGD's)
H 4.8 Types of Questions in FGDs
H 4.9 Plan of action for Data Collection

Advance Preparation Prepare and photocopy all handouts. Prepare role play for Session 1, Step 3

PURPOSE OF THE TOPIC

The purpose of this topic is to explore techniques that could be used to assess nutrition services and programmes in communities.

Session 1: Assessment Techniques 30 minutes

Step 1: Activity: Introduction

a) Ask

"Why do you think it is important to assess nutrition services/programmes?"

b) Remind participants that the Integrated Nutrition Programme started from an assessment and analysis of the previous nutrition interventions and suggested the formulation of a more integrated approach. The UNICEF triple A approach is crucial for the local initiation of the INP. Explain that we need to describe and analyze a problem or situation before designing an intervention.

c) In the previous topics we have identified key questions, based upon the UNICEF Conceptual Framework, answers to which are important to plan district nutrition interventions. In the next three topics we will concentrate on techniques to collect information to answer these questions.

Step 2: Activity: Identifying Assessment Techniques

a) Ask

"What nutrition services are offered as part of the Integrated Nutrition Programme?"

Write their responses on the flipchart.

The following should be listed:

Growth monitoring and promotion

Immunisation services

Management of severely malnourished children

Management of children with diarrhoea

Ante and post natal care

Primary School Nutrition Programme

PEM Scheme

Community based nutrition projects

Water and Sanitation facilities and hygiene education

b) Ask

"In what ways can we gather information in order to assess nutrition services?"

The following methods should be noted:

Observations

Interviews

Records review

Focus group discussions

c) Divide participants into 4 groups. Give one method to each group. Give each group the following task:

What sort of information, useful for doing a nutrition assessment, can you collect using the method you have been given?

(You have 10 minutes for this activity)

The following points should come out:

Observations

Possible uses

- ➤ To follow a client through an activity at the clinic;
- ➤ To observe provider/client interaction;
- ➤ To observe the health worker providing services;
- ➤ To observe specific procedures, for example, growth monitoring;
- ➤ To check on the availability/adequacy/ utilisation of supplies, equipment and materials;
- ➤ To check on routine activities such as maintaining the cold chain.

Interviews	**Possible uses** ➤ To obtain specific information about services from clients, health workers, community members, and from the health management team members such as provincial and regional personnel ➤ To obtain information about household food security
Record review	**Possible uses** ➤ Clients' files and charts for number of cases treated with a certain condition such as diarrhoea or malnutrition, type of treatment, and patient management ➤ Attendance records for number of cases seen during each month, and number of cases put on Protein Energy Malnutrition Scheme
Focus group discussion	**Possible uses** ➤ To obtain views and opinions of community members and health service providers about service provision ➤ To obtain information on community cultural beliefs about feeding of young children

Session 2: Structured Observations — 60 minutes

Step 1: Activity: Performing Observations

a) Ask three participants to prepare and perform the following role play which takes place at the clinic.

A mother has come to the clinic to have her baby weighed. The health worker does not greet the mother, she weighs the baby fully dressed. The health worker does not plot the child's weight correctly on the chart but just writes it down and then does not give any feedback to the mother. Improvise other bad behaviours on the part of the health worker.

b) After the role play, ask participants the following questions:

"What was this role play about?"

"What did the health worker do?"

"What should the health worker have done?"

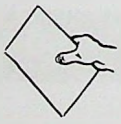
c) Ask *what technique they used to evaluate this role play?*
- The answer should be observation. Ask

"What techniques did you use to evaluate this role play?"

d) Point out that they first imagined what a good consultation consisted of and then checked it against what was happening. Explain to participants that to do an assessment they need to use a standard or guideline which identifies the procedures that should be followed, and then to write a checklist against which they can check whether or not these activities occur.

Step 2: Activity: Preparing Observation Checklist

a) Explain that a structured observation is used to learn about actual conditions and practices in the field. Structured observations are different from ordinary observations because the evaluator is systematically looking at specific behaviours, activities and procedures. The most frequently used instrument for collecting data during a structured observation is a checklist. Where the description is factual and accurate, structured observations enable the evaluator to describe a programme thoroughly and carefully.



b) Distribute **Handout 4.1** (p. 103) on the Steps in Preparing a Structured Observation. Take participants through it and clarify any issues.

c) Explain that the first step in developing an observational checklist is to establish what should be the ideal situation. Distribute **Handout 4.2** (p. 104) on the Guidelines for Growth Monitoring and Promotion (GMP) and take participants through it. Explain to the participants that this is a sample guideline for assessing GMP programs, and that they will have to develop similar guidelines for other types of nutrition-related services during the training. Point out that where there are no guidelines or procedures manuals, the district health team should develop its own.

d) Divide the participants into groups of 5. Give each group the following instruction:

Using **Handout 4.2** (p. 104) and **Handout 4.3** (p. 105) (which is an example of a checklist) draw up an observation checklist that could be used to assess the quality of growth monitoring.

(You have 20 minutes to do this)

e) Get each of the groups to visit the other groups and examine their checklists to see what differences there are.

f) Finish this session by pointing out the need to blend in with the environment when doing an observation. Ask the participants in what ways they may introduce themselves to those whom they are going to observe in order to minimise the problems of changing behaviour as a result of observation.

Session 3: Key Informant Interviews — 90 minutes

Step 1: Activity: Introduction

a) Ask

"What are key informant interviews?"

b) Summarise the responses by stating that key informant interviews are interviews with people who have been especially selected because they might have special in-depth experience or knowledge.

c) Then ask

"What are the reasons for doing key informant interviews?"

Write their responses on the flipchart.

The following points should come out:

- ➤ to reveal knowledge, attitudes and practices regarding the provision of health services;
- ➤ to gather information on current practices and problems;
- ➤ to identify the resources available to solve these problems;
- ➤ to gather people's perceptions concerning the provision of health services.

Step 2: Activity: Identifying Key Informants

a) Explain to participants that key informant interviews involve direct questioning, using structured and open-ended questions with one subject at a time. Ask

"Who in the community and the health services might be able to provide important information about the nutrition situation in the community?"

The following should come out:

- ➤ People who work within the community and have a professional understanding of the issues: for example, school teachers, clinic nurses, social workers etc.
- ➤ People who are recognised as community leaders and seen to represent a section of the community: for example, councillors, traditional leaders, church leaders.
- ➤ People who are important within informal networks and often play a central role in local communications: for example shop-owners, old women in the community, income generation project leaders.

Step 3: Activity: Identifying Skills Needed for Conducting Interviews

a) Divide the participants into 4 groups. Give each group **Handout 4.4** (p. 106). Give each group the following task:

1. Ask two members of your group to read out the interviews in **Handout 4.4** (p. 106).
2. Ask the partipants to write down all the differences between the two interviews.
3. Now ask

"What are the qualities which are needed to conduct a good interview".

(You have 30 minutes for this task)

Share the qualities of a good interviewer in plenary. The following points should come out:

- articulate
- honest
- aware of the needs of other people
- patient
- clear on the purpose of research
- humble
- modest
- flexible
- considerate

b) Distribute **Handout 4.5 How to Conduct Key Informant Interviews and Observations** (p. 107). Ask each of the participants to read out one paragraph at a time. Clarify any issues that participants may have.

c) Explain to the participants that the interviewer's attitude is very important, not only because it must actually be an invitation for the interviewee to talk, but because the interviewee (unconsciously perhaps most of the time) imitates the interviewer's attitude. Ask participants to brainstorm how an interviewer would demonstrate the key qualities of a good interviewer. Write responses on the flip chart.

Summarize the discussions by highlighting the following actions that will improve an interview:

Giving attention and showing interest.

Maintaining eye contact with the interviewee.

Using appropriate voice.

Displaying an open inviting posture.

Step 4: Activity: Developing Interview Schedules

a) Point out that there are several types of questions that should be included in an interview.

- Descriptive or open-ended questions. These are used to obtain information on facts, opinions and sensitive issues. These questions request an account of an event through probing.
- Structured or close-ended questions. These are used when the range of possible responses is known.
- Contrast questions. These ask the difference between two or more events or objects.
- 'Why' questions. These ask respondents to explain the reasons for a situation or an action.

b) Using the same four groups of participants as before give each one of the following four topics: The quality of growth promotion and monitoring; The PEM scheme; Breastfeeding practices and related attitudes in the community; and The functioning of the PSNP in schools.

Then give them the following task:

1. Develop an interview guide for key informant interviews in order to gather information to assess your chosen topic.
2. You will be expected to share your interview guide with the rest of the class by conducting interviews in role plays.

(You have 30 minutes for this activity)

c) Get each group to present their interview schedule in the plenary through a role play.

d) After each of the role plays has been presented, ask participants to comment on the strengths and weaknesses of the role play.

e) Finish this session by distributing and read out **Handout 4.6 The Task Box for Key Informant Interviews** (p. 109) and ask participants if they have any questions about the handout.

Session 4: Focus Group Discussions — 60 minutes

Step 1: Activity: Introduction

a) In groups of three, ask participants to come up with a definition of what focus group discussions (FGDs) are and to state when they should be used.

Write their responses on flipcharts and ensure the following points come out:

- ➤ FGDs are a qualitative method of assessment.
- ➤ They use group dynamics and the flow of discussion to probe deeply into beliefs and concepts people have about a particular subject.
- ➤ They are held with small groups of people who have similar characteristics.
- ➤ FGDs are led by a moderator who uses a question guide to introduce the topics of interest.
- ➤ The discussion may either be taped or written down by a recorder.

b) Distribute **Handout 4.7** (p. 110) on how to organise and conduct focus group discussions and read through it with the participants, noting the preparation tasks, the implementation tasks and the analysis tasks. Clarify any questions they may have.

c) Distribute **Handout 4.8** (p. 111) on the different types of questions that are asked in FGDs. Go over each one, giving examples.

d) Ask participants if they have experience doing FGDs, and how they were used. Ask them if they can think of other ways to encourage group participants to speak freely and informatively about nutrition and related issues. Ask them if they can think of times that FGDs should not be used.

Step 2: Activity: Skills Needed for Conducting Focus Group Discussions

a) Ask participants to brainstorm about the skills needed to facilitate a group discussion. List their responses on the flipchart. The following points should come out.

The facilitator should:

- ➤ be a good listener; not dominate the discussion;
- ➤ encourage all members of the group to contribute to the discussion;
- ➤ be a good timekeeper;
- ➤ be alert to people's reactions in the group;
- ➤ be able to probe for further information;
- ➤ be able to keep the discussion to the topic.

b) Ask participants to brainstorm about the role and skills of a good note-taker (recorder). The following should come out.

The recorder should:

- ➤ be attentive;
- ➤ know what points are key and relevant to write down;
- ➤ be a quick and able writer;
- ➤ be able to summarise and interpret the discussion.

Step 3: Activity: Performing a Focus Group Discussion

a) Divide participants into 2 groups. Give each of them one of the following subjects:

Beliefs about child feeding practices in the community

Issues regarding the PEM scheme

Give them the following task:

1. Prepare a question guide for a FGD for the topic that you have been given.
2. Decide who will be the facilitator and the recorder.
3. Conduct the focus group discussion with six to eight members of the other group.

b) Ask the participants what went well, what didn't go well and how it could be improved.

c) Complete this session by explaining to participants that once the FGD has been conducted, they need to analyze the results. Remind them that it is important to capture the opinions expressed during the discussion and not try to quantify how many people gave opinions.

d) Also point out that FGDs may be used to develop and test nutrition messages. When this is done, it is useful to record the exact phrases and words that were used by community members or health workers. Clarify any questions the participants may have about FGDs.

Session 5: Preparation for Collection of Data 180 minutes

Step 1: Activity: Organising a Field Visit

a) Explain to participants that during the last topic they identified key areas of the information pyramid which needed to be completed. During this topic they have learnt about and practiced a few ways of collecting this information. They have also prepared a few interview and observation guides. It is now important to develop further guides and to test these first before going around the district.

b) Part of your preparation for the workshop should have included organising a field site for the students to go out and test some tools. The field site should include a couple of primary health care clinics

where the participants will have the chance to interview health workers and mothers. You should now give some background to the participants about the field sites (e.g. how large the clinics are, what services they offer, information about the communities they service, etc.).

c) Tell the participants that they will now prepare to test their tools by going out to the field sites.

d) Divide the participants into district teams and give them the following instructions:

1. Revise which parts of the information pyramid have information which needs collecting.
2. For each missing piece of information decide whether it can be collected using one of the methods - observation, interviews or focus group discussions.
3. As a group choose three pieces of information and plan how you will collect the data.
4. Prepare the appropriate data collection tool to collect the appropriate data.
5. Decide who will be the subjects, when the data will be collected and by whom.

(You have 1 hour for this task)

e) Visit each group and make sure that they have finalised the data collection tool and have planned who they will interview/observe, and that they have assigned tasks. *(Use Handout 4.9 (p. 112) as a guide)*

Handout 4.1

STEPS IN PREPARING A STRUCTURED OBSERVATION

1. Decide if structured observations are needed and can be done, considering available resources.
2. Generate a list of potential key behaviours which can be observed.
3. Choose an observation method: either a checklist, coded behaviour records or delayed reports which are filled in after the observation is made.
4. Decide how long each observation must be in order to yield good data.
5. Determine how many observations are needed.
6. Prepare a plan for conducting observations by determining who/what to observe, where and when.
7. Prepare the observers' recording sheets, if needed.
8. Choose/train observers.
9. Inform staff about planned observations.
10. Conduct observations that you have planned.
11. Code, clean and process data.
12. Formulate conclusions and recommendations.
13. Share the results with the community.
14. Use the results for planning, implementation or further assessment.

Handout 4.2

GUIDELINES FOR GROWTH MONITORING

1. Greet the mother or caregiver.
2. In a polite way, find out what service(s) the mother has come for and direct her there.
3. Discuss the general welfare of the child and other family members since the last visit.

   Ask: has the child been well?

   has the child been growing well?

   have any developmental milestones occurred, such as starting to crawl, the appearance of new teeth, starting to sit up alone?
4. Set the scale to zero or check that it is at zero as you ask the mother to remove the child's clothes.
5. Help the mother to correctly place the child on the scale (all parts of the child's body should be on the scale).
6. Read the weight correctly when the numbers on the scale stop fluctuating.
7. As you record the weight and plot the weight for age on the child's health card by connecting the dot at the previous point, tell the mother to take the child off the scale.
8. Ask the mother to dress the child.
9. Show the mother the card and see if she can interpret it correctly. For example, if the child has gained or lost weight since the last visit. Praise her for doing so.
10. If the child has gained weight, commend the mother and reinforce this behavior. If the child has lost weight, find out from the mother if she knows the reasons why, for example, if the child has been ill or any other problem.
11. Ask the mother about current feeding practices, for example, exclusive breastfeeding or weaning practices. Enquire about the availability/affordability of staples and specifically oily foods and cheap sources of protein (e.g. beans, sour milk etc.). And then give proper advice (praise her for good practices).
12. Advise the mother how she may improve her feeding practices (e.g. active feeding).
13. Check if vitamin A supplement has been given and ask about access to Vitamin A rich foods (e.g. pumpkin, pawpaw, carrots etc.).
14. Check if the immunisation record is accurate and up to date. Advise her accordingly.
15. Ask the mother if she has any questions or concerns regarding her child.
16. Ask the mother if she has any questions or concerns about family planning. Advise her accordingly.
17. Advise the mother when the child is due for the next visit.

Handout 4.3

SAMPLE CHECKLIST ON POST NATAL CARE

Name of Observer .....

Date .....

Location/Clinic .....

1. Post natal care for the mother		
Did the service provider:	Yes	No
Greet the mother?		
Ask about general health of mother and child?		
ask mother about her diet?		
ask mother about baby's eating patterns?		
encourage exclusive breastfeeding up to 6 months?		
encourage mother to breastfeed when she/baby are unwell?		
Provide appropriate counseling on mother's diet during lactation?		
encourage the use of locally available foods (energy rich foods)?		
encourage cultural practices that promote consumption of important foods for lactating mothers?		
discourage dietary taboos that restrict important foods for lactating mothers?		
provide iron and/or folic acid tablets?		
provide nutrition supplements?		
examine for engorged breasts, cracked nipples or abscesses?		
provide warning signs that indicate that the mother should seek help?		
2. Post natal care for the baby		
Did the service provider:		
weigh the baby?		
encourage the mother to take the child for growth monitoring?		
check if baby is immunised?		

Handout 4.4

ROLE PLAY CARD FOR KEY INFORMANT INTERVIEW

A "bad interview"	A "good interview"
Mama Ngumbela Good morning, Mama Dlamini. The government needs information about how you people feed your children, so I would like to ask you some questions. *Mama Dlamini* I'll try to help you but as you can see I'm rather busy. I have to go to the market in a few minutes. *Mama Ngumbela* Well I am afraid I must have this information today and I can't come back later. *Mama Dlamini* What can I tell you, I am only a humble person? *Mama Ngumbela* That's right, you really know what's going on, but the government has to check on it from time to time. Now I suppose you feed your children mainly on maize without anything added? *Mama Dlamini* Well, I do my best, but at this time of the year there is hardly any food to be found around here. *Mama Ngumbela* I'm sure there are some things to be had somewhere, but wait a minute while I write that down. I haven't got much time. Perhaps you could tell me what foods you eat which have a high protein content *Mama Dlamini* I'm sorry , I don't understand what you mean *Mama Ngumbela* Well, never mind. How much money does your husband earn every month?	*Mama Ngumbela* Good morning, Mama Dlamini. My name is Mama Ngumbela. I am from the Ministry of Agriculture, Home Economics Division. I wonder if you could help me. I am asking all the mothers in the village about foods they use for feeding your children. Might I ask you too? *Mama Dlamini* I'll try to help you but as you can see I'm rather busy. I have to go to the market in a few minutes. *Mama Ngumbela* I appreciate that you're busy Mama Dlamini with so many fine children to care for. I'd gladly come back at a more convenient time, but unfortunately I've got to get the information today. The questions won't take a minute. *Mama Dlamini* What can I tell you, I'm only a humble person? *Mama Ngumbela* Of course, but your opinion is important. Well, can I start by asking what's the main food you feed your children? *Mama Dlamini* Maize porridge. *Mama Ngumbela* Thank you. And do you ever add anything to it? *Mama Dlamini* Well I do my best, but at this time of the year there is hardly any food around here. *Mama Ngumbela* Thank you very much indeed. That information was most useful. I'm very grateful. Oh one final question. Could you please tell me what job your husband does? *Mama Dlamini* He is a bus driver *Mama Ngumbela* **Excellent. Thank you again Mama Dlamini. I'm leaving now, thank you very much for your time, Goodbye.**

Handout 4.5

HOW TO CONDUCT KEY INFORMANT INTERVIEWS AND OBSERVATIONS

Key informant interviews and observations are techniques for identifying problems and potential solutions. Interviews may be carried out in the clinics or at the hospital, in the school or in the community during several visits. Observations and assessment of nutritional status and diet can be conducted during the same visits. The length of time and number of visits depends on what is being observed or discussed and on the participants' reaction. If a visit is too short, participants may not have the time to relax and provide in-depth information. If a visit is too long, or too many visits are made, participants may become frustrated by the inconvenience.

Prior to initiating an interview, it is important to establish credibility and a level of acceptance with the person being interviewed. Visit the formal or informal community leader to ask for his or her permission to carry out research in the community and explain why the information is being collected. Some programmes may want to hold a community meeting to introduce the interviewers before fieldwork begins. In other places the interviewers may make brief introductory household visits. It is not always advisable to identify the interviewers by profession, especially if they are doctors or nurses, because this can bias people's responses.

Establishing a friendly relationship with participants is generally not difficult if interviewers are sympathetic and speak the local language. Once rapport is established, the interviewee will not feel he/she must treat the interviewer like a guest, but will go about his/her usual chores, leaving the interviewer to complete notes or to help.

The *in-depth interviews* are usually held in the home or around the hospital, clinic or housing compound. Specific interview topics, such as food preparation, are discussed in the kitchen area so that the actual utensils used to prepare and serve the food can be observed. This facilitates conversation and permits the interviewer to compare reported practices and beliefs with actual behaviours.

Dietary recalls require greater concentration by participants. These are conducted in the most comfortable environment possible, at a time when participants are not distracted by other tasks.

An interviewer who is in the house repeatedly or for an extended period can introduce discussion about the neighbours or local problems to divert the conversation but still reveal the participants' views. Remember, it is fine just to relax. If the mother sits in the shade for a minute to shell peas, sit with her. Let her begin the conversation.

Similarly it is important to interview health workers in privacy and this may require negotiation with the health facility management and arrangement of a time when the health worker can be spared from normal duties. Every effort should be made to conduct the interview in a quiet, private area.

Start the interview with the basic questions listed earlier: name, address, and family composition. Then guide the conversation by asking different types of questions, probing, and requesting clarifications. Be careful to keep these questions free of suggestions of correct or desired responses.

Continued . . .

Handout 4.5

Unlike formal surveys, where responses are brief, in-depth interviews encourage clarification of what each person says. Ask the respondent to explain the full meaning by repeating or rephrasing a question. Questioning does not have to stick to the guides. In-depth interviewing involves probing for information on new themes and issues as they emerge. If people are reluctant to talk because they do not think they have any information to offer, offer assurance that their views are of great interest and importance.

Decide whether the in-depth interviews are to be taped. Extensive note-taking helps to get the most out of the interviews but it is difficult to take extensive notes and listen attentively at the same time. If the field team lacks prior experience with note-taking, it is worthwhile to tape the in-depth interviews. In this case, field workers listen to the tapes after an interview and add details to their field notes as required. Transcribing the tapes is not necessary.

Interviews are summarised immediately so that decisions about modifying guides and exploring new lines of inquiry are made and acted on.

Structured observation is a method for obtaining information about specific practices (food distribution at meal time, where the baby is in relation to the mother throughout the day, or food preparation by the mother, for example). Open observation is when interviewers notice something casually (the presence of a food or other products in the home, for example). Observations conducted during the interview capture the context in which behaviours occur and identify new behaviours or new issues not discussed in the question guide. Observations may confirm or contradict what the respondent reports during the interview and are an extremely important part of the home interview.

Here are some additional points to remember about how to conduct structured observations and key informant interviews:

- Make sure you introduce yourself and the members of the team to the person(s) you are interviewing and/or observing.
- Explain the purpose of your visit and note that it will not interfere with routine or on-going activities.
- Point out that you want to learn more about their activities with a view to improving the nutritional status of the district.
- After the interview or observation, quickly check to ensure that you have all the information you need.
- Thank the person for giving you the time to be with them.

Adapted from Designing by Dialogue - K.Dickin, M. Griffiths, E. Piwoz. Support for Analysis and Research in Africa 1997.

Handout 4.6

TASK BOX FOR KEY INFORMANT INTERVIEWS AND OBSERVATIONS

Preparation Tasks	
Prepare the protocol and guides.	❑ question and observation guides
Revise the research plan.	❑ ensure that sample is suitable for question guides
Train the field team.	❑ developing rapport ❑ questioning and probing ❑ recording and forms ❑ unbiased observation ❑ what to look for ❑ structured forms
Test and revise the protocols and guides.	❑ to refine and correct and to familiarise trainees ❑ to estimate amount of time needed for each interview
Draft a field plan based on the research plan and results of testing the protocol.	❑ specify number of respondents per group (age, respondent category, etc.) in each site ❑ plan now to recruit respondents and divide the interviews among the field team members
Implementation Tasks	
Recruit the households.	❑ select households ❑ obtain informed consent
Conduct household interviews and observations.	❑ interview and record findings ❑ observe household, feeding episodes, etc.
Conduct interviews with other respondents.	❑ select participants in research plan categories ❑ conduct interviews, but usually not observations
Analysis Tasks	
Analyse the interviews and observations.	❑ initial analysis ❑ sort groups, summarise by themes, interpret ❑ compare with interview findings ❑ examine new issues raised
Develop recommendations.	❑ list possible recommendations, constraints, motivations
Draft a brief report.	❑ summarise findings and priorities for next steps

Adapted from Designing by Dialogue - K.Dickin, M. Griffiths, E. Piwoz. Support for Analysis and Research in Africa 1997.

Handout 4.7

TASKS FOR ORGANISING AND CONDUCTING FOCUS GROUP DISCUSSIONS

Preparation Tasks	
Design the FGD protocol and develop the plan.	❑ determine questions ❑ choose type of participant ❑ choose sites
Decide who will conduct the FGDs.	❑ identify moderators and note-takers
Develop the question guides.	❑ specify the key issues and questions
Train the moderators and note-takers.	❑ discuss the roles of the moderator and the note-taker ❑ teach discussion techniques
Implementation Tasks	
Recruit the participants.	❑ choose participants with similar characteristics
Conduct the FGDs.	❑ provide an introduction ❑ guide and record the discussion ❑ debrief
Analysis Tasks	
Do initial analysis in the field.	❑ transcribe the tapes or prepare notes ❑ summarise each FGD
Sort and summarise the results.	❑ identify themes and trends ❑ compare and contrast groups
Write a brief summary of the results.	❑ highlight how the results reinforce, conflict, or add to earlier findings

Adapted from Designing by Dialogue - K.Dickin, M. Griffiths, E. Piwoz. Support for Analysis and Research in Africa 1997.

Handout 4.8

TYPES OF QUESTIONS IN FOCUS GROUP DISCUSSIONS

Asking why The focus group discussion is not just another way to do a survey. The moderator's job is to generate a discussion that will probe deeper into common child feeding practices and the perceptions and reasons behind them. For example, "Why do women generally believe they must...?"

Clarifying an answer If more information is needed after an explanation has been given by a participant, ask others for clarification. For example, "Please tell me what Tola means when she says..."

Substitution Use the words of one of the participants to help clarify the original issue. However, take care not to change what is at the heart of the topic.

Polling This technique will help enliven a discussion or turn the group's attention away from someone who may be dominating the discussion. Go around the group, asking each participant to express an opinion. But remember that the objective is to have a discussion among participants, not an in-depth interview with each participant. Use this to spark debate on divergent opinions.

Contrasting During the conversation, different opinions or practices may be mentioned for the same problem or situation. Try to draw out the differences without making anyone feel uncomfortable, and ask the group's opinion about these contrasting views.

Projection Use pictures or a story to present a particular situation that participants can discuss without having to use themselves as examples. For example, show photos of children and ask participants to imagine what these children's lives are like and what makes them healthy or unhealthy, or ask the group to complete a story that reflects decision-making on a relevant issue. You could describe a family situation that participants can identify with, explain a problem that the family is facing, and then ask the group to make up an ending to the story that solves the problem.

Concluding remarks At the end of the session, ask participants what they think about what was discussed and whether they have additional comments. Often, when participants see that the formal session is over, they begin to speak more frankly than they did during the session.

Adapted from Designing by Dialogue - K.Dickin, M. Griffiths, E. Piwoz. Support for Analysis and Research in Africa 1997.

Handout 4.9

PLAN OF ACTION FOR DATA COLLECTION

Date	Activity	Who	When	Where	Data to be Collected	How

TOPIC 5 WORKING WITH COMMUNITIES AND COMMUNITY PARTICIPATION TECHNIQUES

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

- ✔ Describe the different types of, and the qualities required to facilitate, community participation;
- ✔ use tools to sensitise and mobilise communities around the integrated nutrition programme;
- ✔ plan a community visit.

Time 12 hours

Topic overview

Session 1: Understanding Community Participation (120 minutes)

Session 2: Tools for Sensitising and Mobilising Communities (8 hours)

Session 3: Planning for Work in the Community (120 minutes)

Materials flipchart, pens, masking tape, VIPP cards, markers, overhead projector, transparencies, transparency pens, finger paints

Handouts

H 5.1 The Participatory Continuum

H 5.2 Methods for Sensitising and Mobilising Communities

Advance preparation Prepare and photocopy all handouts, prepare transparencies. Inform participants about role play to be prepared (Session 3, Step 1)

PURPOSE OF THE TOPIC

The purpose of this topic is to explore participatory methods useful for sensitising and mobilising communities on nutritional problems, nutrition services and programmes

Session 1: Understanding Community Participation — 120 minutes

Step 1: Activity: Outcome of Session

a) Outline the main objectives of this session:

- To list the advantages of community participation
- To understand the different types of community participation
- To identify and improve skills required for facilitating community participation

Step 2: Activity: Types of Community Participation

a) In buzz groups, ask

"What are the advantages of community participation in an integrated nutrition programme (INP)?"

b) List the advantages on the board.

c) Explain that whilst there are many advantages of ensuring community participation it is important to be clear about what we mean when we say community participation. The next exercise is about exploring the different meanings and levels of community participation.

d) Divide into groups of 5. Distribute to each group flipchart paper, markers and crayons. Give them the following task:

1. Discuss your experiences of community participation in nutrition programmes.
2. Create a poster which captures your experience and understanding of good community participation.

(You have 30 minutes)

e) Share the posters in plenary.

f) Using **Handout 5.1** (p. 125), go through the community participation continuum and ask each group to say where on the continuum of participation their picture lies.

g) Point out that whilst the ideal is to have a community driven process this is not always possible to achieve. We quite often have to start near the top of the continuum because years of neglect and poverty mean that communities quite often need to start with the partnership and assistance of outsiders such as ourselves. The use of this table is for us to be aware of what level of participation is currently occurring in our programmes and how we can move it down the continuum towards greater community participation.

Step 3: Activity: Skills Required for Community Work

a) Explain to participants that this session is about sensitising and mobilising the community to take responsibility for improving its nutritional status.

b) Write the following definitions on the board:

> Sensitisation is the process of creating awareness and getting the community actively involved.
>
> Mobilisation is the process of getting the community to work together on an issue or need they have identified.

c) In buzz groups, ask participants

List the attitudes and behaviours that are important in order to sensitise and mobilise communities and why these attitudes and behaviours are important.

Make sure the following attitudes and behaviours are mentioned:

- be curious
- be humble
- be observant
- facilitate (do not direct)
- have respect
- be prepared but stay flexible, relaxed, and creative
- communicate clearly
- listen to others

d) Explain to participants that listening is one of the most important skills required for sensitisation and mobilisation. Tell them that in order to appreciate the importance of good listening skills we will practice listening to each other.

Break participants into pairs. Write up the following instructions:

> One person will be the listener and the other will be the speaker. Ask the speaker to talk for 3 minutes about something good that happened to them recently. The listener should remain silent, but show that he is listening. Then switch roles and repeat the exercise.

e) Bring participants back together and ask them what their partner said, and to list the different ways that they knew their partner was listening to them.

f) Summarise by reminding participants that active listening is more than just hearing what others say. It involves listening in a way that communicates respect, interest, and empathy. These three things can be conveyed through both verbal and non-verbal communication. Examples of verbal cues are "Mmm, hmmm", "Yes, I see", or repeating what the person has just said. Examples of non-verbal cues are not interrupting the speaker, nodding your head and smiling, leaning forward, maintaining eye contact (if appropriate), and avoiding distractions.

Session 2: Tools for Sensitising and Mobilising Communities — 8 hours

Step 1: Activity: Introduction

a) Outline the main objectives of this session:

- To introduce some tools which can assist in mobilising and sensitising the community
- To practice using these tools
- To identify types of information which can be gathered using these tools

Step 2: Activity: Exploring Some Participatory Tools

a) Explain to participants that there are several useful tools for sensitising and mobilising communities. In this session we will learn about the following tools:

- Community mapping
- Seasonal calendars
- Venn Diagrams
- Three pile sorting
- Matrix scoring
- Story with a gap
- Community Action Plan

b) Distribute **Handout 5.2** (p. 126) on different methods for sensitising and mobilising communities. Explain that different tools can be used to collect different types of information. The types of information to be collected in the community are outlined in the nutrition situation assessment framework. Before going to the field, the team should review the framework, determine the information gaps, and then choose the methods (tools) they will use to collect the needed information. Explain that time will be set aside later, during this session, to do this.

c) Divide the participants into 3 groups, and write up these instructions:

First group will do a community map,

the second will develop a seasonal calendar,

and the third will develop a Venn Diagram.

The instructions for each group are given below.

(You have 1 hour to complete this excercise)

Community mapping:

Ask the team to go outside to a location where they can draw on the ground. Locate appropriate tools such as sticks, rocks, and chalk to draw the map. Ask the team to draw a map of the nearby location (training center). One person should be responsible for recording the map on a piece of paper. If the team is large enough, it should divide into smaller groups and several maps of the same location should be prepared. During the plenary, each group can present its map and discuss how/why they are different.

Seasonal Calendars

Ask the team to draw a straight horizontal line and divide it into 12 parts to represent each month of the year. On one side they should list all the things that can influence the household food security of a poor household in their area (e.g. it can include workload, income, rainfall, food prices, etc.). They should then decide how these things vary during the year. After completing the exercise encourage them to define different time periods for their calendars (e.g. weeks, months, seasons) and to use different methods (bar graphs or sticks, horizontal lines, beans, etc.) to portray the issues being recorded.

Venn Diagram

Ask the group to list all the organisations present in their community. Then ask them to cut out circles of different sizes. Team members should write the name of the biggest organisation on the largest circle, the second largest on the next sized circle, etc.

On a large piece of paper the team should draw a square in the center to represent the community, and then request the other participants to place the circles at different distances from the center of the square to represent the importance of the organisations to the community. Important organisations should be placed near the center. Organisations that are inter-related should be overlapping.

The team members who make the drawing should explain it to the others to make sure that all agree on the placement of organisations (circles) and understand the exercise.

d) Ask all teams to present their exercises (maps, calendars, diagrams) to the entire group in plenary. Discuss the findings, lessons learnt, and what other information can be collected using these tools.

e) Remind participants that Venn diagrams show the key institutions and individuals in a community, and their relationships and importance. Larger circles represent larger, or more important components and the smaller circles represent smaller, or less important organisations. Also the distance between the community and the circle denotes the nature of the relationship.

Step 3: Activity: Exploring Some More Participatory Tools

a) Continue with the participatory exercises by dividing the participants into 3 groups and giving them the following instructions:

Three Pile Sorting

Ask the team to draw or write the names of different foods, drinks, and locally prepared recipes on different pieces of paper. Be sure that they include fruits, vegetables, and at least 10 different drinks and preparations. Ask the team to separate the papers into three piles: foods/preparations that are good for a young child, those that are harmful, and those that are neither healthy nor harmful. Team members should give the reasons for each categorisation, and discuss ways that the harmful foods might be made acceptable. At least one team member should play the role of notetaker to record the discussion and present it back in plenary (to the community). If time allows, repeat the exercise for a pregnant woman.

Pocket Chart Voting and Matrices

Ask the group to draw on different pieces of card the different causes of undernutrition that were highlighted from the earlier exercise on the causes of undernutrition in Topic 2. Make sure that everybody recognises what the different drawings/symbols represent. Place an envelope under each picture.

Give the men and women different coloured cards and ask each person to vote for up to 3 causes that they think are most important in the community where they work. At the end of the voting, tabulate the results by card-colour (representing the opinions of men and women).

Ask the group to write down the three most important causes of undernutrition that were recognised from the voting exercise. Get the group to think of three possible solutions to these problems (causes). Next, ask participants to come up with a list of 3-5 criteria that they would use to evaluate the pros and cons of these solutions.

Write the 3 solutions on a vertical axis of a matrix and the criteria on the horizontal axis. Give each participant 30 seeds/beans and ask them to score each solution by placing more or fewer beans under each criterion. Three seeds are placed if the solution scores highly according to the criterion, 2 seeds if it scores medium and 1 seed if it scores low. Ask one member of each group to tally the results and prepare to present them to the group.

Story with a Gap

Ask participants to draw a picture (or use an existing one) that represents a bad feeding or hygiene related practice (e.g. child defecating in the courtyard, mother handling animals and preparing food) and one which they thought reflected good practice (e.g. child defecating in a toilet, mother washing her hands before preparing food).

Ask participants to fill in the gap by creating a story about the process that the community might use to solve the problem - moving from the bad to the good practice. This exercise is designed to make participants think through the different steps involved in implementing a community action plan. There are many examples of before and after scenes. For instance:

b) Ask all teams to present their exercises to the entire group in plenary. Discuss the findings, lessons learnt, and what other information can be collected using these tools.

c) Remind participants that Pocket Chart Voting is a method which moves away from group consensus to collating individual opinion. Pockets are envelopes or containers of some sort which are attached below each option which has been put forward. Participants are given voting chips - slips of paper or any item will do - which they place under the option they prefer. When everyone has voted, the results are tabulated for all to see. By giving different groups different colour slips or types of voting chip one can see if patterns emerge along certain lines - e.g. giving men and women different

colours. The advantage is that people are not subject to group pressure especially if you place the chart so that people are private when they vote.

d) Remind participants that when using Matrices and Ranking they should keep it simple, if you try to do too much at once on one matrix the results are not easy to read.

Step 4: Activity: Learning About the Community Action Plan

a) Explain to participants that in order for a community to mobilise itself to act on the information uncovered through these tools, it needs to have a well-defined strategy and a concrete implementation plan. This is called a Community Action Plan (CAP).

b) Mention that the CAP is a summary of the priority problems, the proposed solutions, the strategies for implementing solutions. The CAP also includes a monitoring and evaluation plan for the community to track its own activities. The CAP is created by community members themselves after they have gone through a process of identifying priorities, constraints, and possible solutions (using the tools described above).

Mention that there is no set process for how the community goes about developing their plan. One approach is for the community to select or elect a committee that will take responsibility for developing the plan and monitoring its implementation. If a committee is selected, it is important to ensure that all segments of the community are represented on the committee.

c) Explain to participants that, like other action plans, the CAP includes the following components:

- name of the project
- who is in charge/responsible
- project objectives
- project outputs
- activities to be undertaken to produce the outputs
- resources required (in the community, external)
- a time line
- a monitoring and evaluation plan (including indicators to be used to check progress and how often they will be tracked).

Session 3: Planning for Work in the Community 2 hours

Step 1: Activity: Introduction

a) Ask participants to divide into groups of 4. Give them the following task.

1. Imagine that you have just arrived in the community for the first time. List the steps that you would follow during the first visit.
2. What information would you try to collect and how?

(You have 30 minutes for this activity)

b) In plenary, ask the groups to share their results.

c) Ensure that in the discussion the importance of planning ahead, punctuality and being clear about what the visit is about are mentioned.

d) Explain to participants that each will be working in a team. This team will include:

- a team leader
- a note taker(s)
- team facilitators

Explain the roles and responsibilities for each team member.

e) Explain that at the end of each visit, different groups should be able to present and discuss their findings with other members of the community. Discuss any problems that the teams might anticipate during the community visit.

f) Divide the participants into 4 groups. Assign one or two of the scenarios to each group. Ask them to develop role plays that address the challenges posed in each scenario:

1. In a small group interview, the informants are very silent, unresponsive, and reluctant to answer your questions.
2. A team member is over-enthusiastic and keeps interrupting the community members when they are speaking.

3. In the review meeting with the community, the local leader tries to control the choice of project priorities.
4. The majority of people in the community identify income generation as a priority and not nutrition.
5. The information collected from the women contradicts the information collected from the men (on any aspect of health, family dynamics, nutrition).
6. The information collected during your secondary data review contradicts what you learn from community members.
7. You have asked a group of men in the community to create a community map but they don't know where to start.
8. One team member is taking a patronising attitude towards women in the community and tends to lecture rather than listen.

Allow each team 5 minutes for each role play. At the end of each, discuss the following questions:

- ➤ what was the role play about?
- ➤ what was learnt from it?

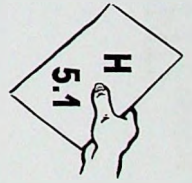
g) Ask participants to work in groups of 6 to develop a plan for approaching the community and for setting up an initial community meeting. Each group should develop a matrix that states the list of tasks, who will be responsible and when it will be completed.

THE PARTICIPATORY CONTINUUM

Mode of Participation	Involvement of Local People	Relationship of Research/Action to Local People
Cooption	token, representatives are chosen but no real input or power	ON local people
Compliance	tasks are assigned with incentives; outsiders decide the agenda and direct the process.	FOR local people
Consultation	locals opinions are asked; outsiders analyzesand decide on a course of action	FOR/WITH local people
Cooperation	local people work together with outsiders to determine local priorities; responsibility remains with outsiders for directing the process	WITH local people
Co-learning	local people and outsiders share their knowledge to create new understanding and work together to form action plans, with outsider facilitation	WITH/BY local people
Collective action	local people set their own agenda and mobilize to carry it out in the absence of outsider initiators and facilitators	BY local people

Source: Adapted from Pretty (1995) in Cornwall (1996). *Towards Participatory Practice: Participatory Rural Appraisal and the Participatory Process.* In Korrie de Konig and Mation Martin (Eds). *Participatory Research in Health: Issues and Experiences.* London: Zed Books.

Appearing in de Negri B, Thomas E, Ilinigumugabo A, Muvandi I. Empowering Communities: *Participatory Techniques for Community-Based Programme Development.* Volume I: Trainer's Manual, June, 1998.



Handout 5.2

METHODS FOR SENSITISING AND MOBILISING COMMUNITIES

Method	Description	Potential Uses in Nutrition Situation Assessment
Community mapping	Community members draw a map of the their community, including geographic features, other resources	ice breaker identify community resources defining the community boundaries, fields, gardens
Seasonal Calendars	Identifies activities, problems, and opportunities taking place throughout the year; shows how things change throughout the year	household food security food prices work patterns water availability disease patterns
Venn Diagrams	A social (organisational) data gathering tool that shows how institutions in the community are linked using circles and a map	identifying potential organisations and structures that can be involved in solutions to priority problems
Three Pile Sorting	Pictures are sorted into categories such as good (beneficial), neutral, and bad (harmful) practices; facilitated discussion of reasons why, and how to move from harmful to positive categories/practices	categorising foods categorising practices identifying ways to move from bad to neutral to positive practices or situations identifying locally feasible solutions to problems
Pocket voting	simple method for collecting opinions on problems, causes, solutions	causes of malnutrition, poverty, health problems priorities in the community
Matrix Scoring	method for ranking alternatives according to community-determined criteria; useful in process of building consensus to move forward	prioritising actions and solutions
Story with a Gap	before and after scenes are giving and community members are asked how to move from the before to the after; a preplanning tool	hygiene conditions/behaviours sanitation conditions/behaviours feeding behaviors
Community Action Plan	a plan developed with/by community members	defines the way forward

TOPIC 6 BASIC DATA ANALYSIS AND INTERPRETATION

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

- ✔ describe their field work experiences;
- ✔ explain how to prepare data for data analysis;
- ✔ analyse quantitative and qualitative data;
- ✔ interpret qualitative and quantitative data;
- ✔ write a report.

Time 7 hours

Topic overview

Session 1: Reporting Back from Field Work Experiences (90 minutes)
Session 2: Preparing Data for Data Analysis (60 minutes)
Session 3: Analysing Qualitative and Quantitative Data (60 minutes)
Session 4: Interpretation of the Results (30 minutes)
Session 5: Writing of a Research Report (3 hours).

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

Handouts

H 6.1 Analysiing Qualitative Data
H 6.2 Summary of Qualitative Data
H 6.3 Matrix Responses on Knowledge, Attitudes, Beliefs, and Practices on Breastfeeding
H 6.4 Example of a Master Sheet
H 6.5 Example of Tallies, Ranges, Percentages, Proportions, Ratios, Rates, Frequencies, and Central Tendency.
H 6.6 General points on Writing a Report

Transparencies

T 6.1 Rules of Report Writing
T 6.2 Main Components of a Research Report

Advance preparation Photocopy handouts and prepare overhead transparencies. Assign participants specific data collection techniques the night before so they can prepare for the information market. Plan and organise a role play involving a focus group discussion on a topic of participants' choice to be performed during one evening.

PURPOSE OF THE TOPIC

The purpose of this topic is to introduce participants to basic data analysis skills to enable them to complete a nutrition situation assessment.

Session 2: Preparing Data for Data Analysis 60 minutes

Step 1: Activity: Differences between Quantitative and Qualitative Data

a) Start this session by explaining what the difference is between qualitative and quantitative data:

Quantitative research is mostly interested in measurement and quantification of data. The data is in the forms of numbers.

Qualitative research differs in that it is usually more interested in the experiences of people and their actions in the context of the lives they lead. The data is in the forms of words and stories.

b) Point out that qualitative data is usually obtained through :

Open-ended questions

Loosely structured interviews

Focus group discussions

Observations

c) Explain that for both qualitative and quantitative data the data first needs to be sorted into categories, then summarised and then interpreted. The next few activities will take the participants through a process of ordering, summarising and interpreting both quantitative and qualitative data.

Session 3: Analysing Qualitative and Quantitative Data — 60 minutes

Step 1: Activity: Analysing Qualitative Data

a) Explain that qualitative data is recorded in narrative form and is often used to describe:

- ➤ certain procedures in greater depth;
- ➤ beliefs and knowledge related to health issues among the population.

b) This data is also well suited to exploring the reasons for certain behaviour or the opinions of respondents on certain sensitive issues.

c) Remind participants that the first step in analysing data is the review of objectives for data collection. For qualitative data this is followed by classifying data based on the objectives of the study.

d) Distribute **Handout 6.1** (p. 134). (Example of data collected from mothers, fathers, and grandmothers on breastfeeding practices, beliefs, behaviour and knowledge.) Explain to the participants that in this handout, data has been classified according to the objectives of the assessment i.e. to identify knowledge, attitudes, beliefs, and practices of different respondents on breastfeeding.

e) Distribute **Handout 6.2** (p. 135). Go through the steps involved in summarizing the data. Explain that the responses of different groups are then summarized and displayed on a matrix sheet.

f) Draw the matrix on **Handout 6.3** (p. 136) with only the top heading written in and ask the participants, in buzz groups, to complete the matrix. They have 15 minutes.

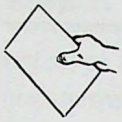
g) Distribute **Handout 6.3** (p. 136) and go through the matrix.

Step 2: Activity: Analysis of Quantitative Data

a) Explain to participants that when analysing quantitative data the first step is to order the data according to the objectives of the assesment. Examples of objectives are to:

- ➤ describe variables, for example the distribution of malnourished children in a certain population;

- look at the differences between groups, for example differences between mothers who breastfeed and those who do not;
- determine associations between variables, for example mother's level of education and length of breastfeeding.



b) Explain that these categories are then put on a master sheet. Distribute **Handout 6.4 Example of a Master Sheet** (p. 137). Go through the handout with the participants.

c) Break the group into groups of 5 and ask participants to display their data on a master sheet.

(Allow 30 minutes for this activity)

Allow each group to give feedback.

Step 3: Activity: Summarising Quantitative Data

a) Remind participants that after ordering the data the next step is to summarise the data.

b) Explain to the participants it is easy to count from the master sheet the numbers of different answers obtained.

c) Point out that there are several numerical measures that can be used to analyse data. These include;

tallies, percentages,

ratios, frequencies,

ranges, and

measures of central tendency (including the mean, median, and the mode).

d) Break participants into groups of 4.

e) Distribute **Handout 6.5** (p. 138). Using responses on Handout 6.4 ask the group to compile the following:

Tallies

Percentages

Frequencies

Measures of central tendency

f) Share their results in plenary and ensure that everybody is clear about the different terms.

Session 4: Interpretation of the Results — 30 minutes

Step 1: Activity: Interpreting Results

a) Point out that once the data is presented it has to be interpreted and used to draw conclusions. Explain that interpretation of data depends on the objectives of the project. Normally, the following are important:

- ➤ the level/status of the indicator of interest, e.g. what is the nutritional status at the time of the data collection? what is the level of exclusive breastfeeding? etc.
- ➤ seek to find the change in that status over time, e.g. has the level (%) of exclusive breastfeeding changed between the base-line/ previous data and the period of recent data?
- ➤ is the size of change (the difference between the base-line/ previous and the recent data) what was expected?
- ➤ if the changes are not what you expected or had planned, find the reasons.

b) Look at the results from the data on **Handout 6.3** (p. 136) and write down possible interpretations of the results.

c) Example of interpretation could be:

- ➤ Out of the children interviewed the youngest was 2 months old, the eldest was 14 months
- ➤ 40% of the children interviewed were males
- ➤ 40% of children were breastfed
- ➤ 30% of the children had solids introduced immediately after birth

Session 5: Writing of a Research Report — 3 hours

Step 1: Activity: Thinking About the Reader of the Report

a) Explain to the participants that one important aspect of research is disseminating the results, and that results can be disseminated through a written report. Explain that before a report is written it is important to know the following:

- Who will read it?
- Why does she or he want to read the research report?

b) Ask participants to brainstorm in buzz groups what questions should be answered by a written research report? The following points should be raised:

- Why did you start doing the research?
- What did you do?
- What did you find out?
- What does it mean?

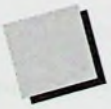
c) Explain that the participants should bear in mind that the reader:

- Is short of time
- Has many other things to attend to
- Is probably less familiar with the research topic than the writer.

d) Put up **Transparency 6.1 Rules of Report Writing** (p. 146) and go through the rules with the participants.

Step 2: Activity: A Closer Look at the Different Components of a Report

a) Ask participants to think about what the components of a research report should be.



b) Write their responses on a flip chart. Put up **Transparency 6.2** (p. 147), and go through the components of a research report.

c) Break the participants into their data collection groups and ask them to analyse, interpret and write a short report on the data they have collected during their field work. *(Use Handout 6.6 (p. 143) as a guide)*

(Allow participants 120 minutes for the activity)

d) Share some of their presentations in plenary.

Handout 6.1

ANALYSING QUALITATIVE DATA

Responses from mothers on knowledge, attitudes, beliefs, and practices on breastfeeding

- In our village every new born is breastfed.
- When mothers go to work, they leave their babies with other relatives, who then feed them with a thin cereal-based gruel.
- Working mothers have to go back to work as soon as they are feeling better, because they do not get paid for maternity leave.
- The age of introduction of new foods varies, it ranges from birth to about seven months, because there are different reasons why babies are given other food besides breast-milk.

Responses from fathers on knowledge, attitudes, beliefs and practices on breastfeeding

- Traditionally children are given breast-milk immediately after birth.
- Due to several reasons some children have to be bottle-fed.
- The most common reason for bottle-feeding is that girls have children while they are still young, and they have to leave the babies with their parents to go back to school.
- We do not think it would be appropriate for another mother from the community to breastfeed other parents' babies, it is just not done, and it is against our culture.
- We can afford to buy infant-formula, so we do not understand why children should not be bottle-fed.

Responses from grandmothers on knowledge, attitudes, beliefs and practices on breastfeeding

- We would like to see all infants being breast-fed, but the modern way of doing things does not allow this.
- We do look after the babies, and feed them when their mothers are not around.
- The mothers sometimes have their own engagements to attend to, so they have to leave the babies under our care. Their engagements include:
  - leaving to seek work in the cities
  - returning to school
  - visiting their own parents
  - visiting their husbands at work, in the cities

Handout 6.2

SUMMARY OF QUALITATIVE DATA

With qualitative information it is not possible to perform complex statistical analysis, because the data is descriptive (words not numbers).

However statistical frequencies can be used to itemize some of the characteristics of the groups studied, and the beliefs, knowledge, attitudes and behaviours. Tabulations can also be used; an example is given below on examining behaviour and knowledge on breastfeeding by different groups within the community.

Handout 6.3 gives the information collected from fathers, mothers and grandmothers on knowledge, attitudes, perceptions and behavior on breastfeeding.

The information in Handout 6.3 can be categorized and summarised in a table as follows;

Steps

1. Classify the three groups.
2. Categorize their responses as follows:
   - age of introduction of fluids (other than breastmilk)
   - reason for not breastfeeding
3. Analyse for behaviour on breastfeeding by categorizing the responses.

Handout 6.3

SUMMARY MATRIX ON RESPONSES ON KNOWLEDGE, ATTITUDES, BELIEFS AND PRACTICES ON BREAST-FEEDING

Caregivers interviewed	Age of introduction of fluids (other than breastmilk).	Reasons for not breastfeeding
Mothers (6)	As soon as the mother feels ready to work.	Mothers either to go back to school or to seek employment.
Fathers (4)	Immediately after birth.	We can afford to buy infant-formula, so we do not understand why children should not be bottle-fed.
Grandmothers (30)	Soon after birth.	- mother leaving to seek work in the cities - returning to school - visiting their own parents - visiting their husbands at work, in the cities

Handout 6.3

SUMMARY MATRIX ON RESPONSES ON KNOWLEDGE, ATTITUDES, BELIEFS AND PRACTICES ON BREAST-FEEDING

Caregivers interviewed	Age of introduction of fluids (other than breastmilk).	Reasons for not breastfeeding
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Grandmothers (30)	Soon after birth.	- mother leaving to seek work in the cities - returning to school - visiting their own parents - visiting their husbands at work, in the cities

Handout 6.4

EXAMPLE OF A MASTER SHEET

Respondent number	Q1: Age in months	Q2: Sex		Q3: Breastfed			Age in months when solid introduced
		M	F	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		0
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				8	6	6	

Handout 6.5

EXAMPLES OF TALLIES, RANGES, PERCENTAGES, RATIOS, RATES, FREQUENCIES, TABLES, AND CENTRAL TENDENCY

Example of tallies:

Question: Did the mother breastfeed her youngest child?

Responses: Yes ❑

No ❑

Don't know ❑

Tally : Responses to breastfeeding practices by caregivers (Handout 6.1)

Breastfeed

Yes	No	Don't know	Total
𝍸 III	𝍸 I	𝍸 I	
(8)	(6)	(6)	(20)

Percentages - %:

A percentage means part of something in relation to its total, which is normally taken to be 100.

Calculating a percentage

Divide the number of people or things in a group by the total number in that group and multiply by 100. An example is given below.

Percent of mothers who breastfed

Total number of responses from caregivers = 20

Total number of mothers who breastfed their children = 8

Therefore percentage of mothers who are breastfeeding their children

= 8/20 x 100 = 40 percent

Ratio:

A ratio is a numerical expression which indicates the relationship in quantity, amount or size between two or more parts. Ask the participants to look at Handout 6.1, and determine the ratio of males to females.

The answer is 8 males to 12 females

Ratio = 2 : 3

Frequencies:

Preparing frequencies

Frequency tables are usually arranged from a large quantity of numbers.

The frequency tables can be arranged by undertaking the following steps:

1. **Organise your numbers into groups** (include the whole range of numbers from the smallest to the largest).

Example

The age of children (in months) included in the survey

Age in months	Frequency	Percent
0-4	9	45
5-9	8	40
10-14	3	15
Total	20	100

2. **All the groups should be of the same width** (the groups should be equally wide, to allow for comparison).
3. **Avoid overlaps** (each number should belong to one group).
4. **Record numbers using selected groups** (record and count the number of children in each group).
5. **Add and check the results obtained** (the total number should be similar to the number of observations or interviews done).
6. **Display the results in a frequency table or distribution,** with a title describing the contents.

Tables:

Preparing tables

Both words and numbers can be presented in tables. For example, number of clients who attended maternal and child health services in the five years can be presented as follows:

TABLE 1: Clients using maternal and child health services during 1993-1997 at clinic.

SERVICES	1993	1994	1995	1996	1997	TOTAL
Growth monitoring	120	156	200	198	220	894
Immunizations	320	450	580	600	720	2670
Antenatal care	140	330	320	500	536	1826
TOTAL	590	936	1100	1298	1476	5390

Points to remember when presenting tables

1. Each table should have a full title, that explains the contents (who; what; when; where). Use capital letters for the word TABLE, then give it a number.
2. Give clear, full labeling. Use capital letters for headings, in boxes and at the beginning of important words.
3. Titles and labels should be outside the frame or box which surrounds the information.
4. Provide a key to explain symbols.
5. List the information source, such as where, when, how, and by whom the information was obtained, so that reference can be made in case further information is required.
6. Provide footnotes where necessary, for additional comments.
7. Accompanying text must describe and discuss the key results.
8. Using asterisks can help to highlight important results.

Measures of Central Tendency:

Explain to the participants that the measures of central tendency include the mean, median, and the mode. Explain that the mean is widely used, and that it contains more information because the value of each observation is considered in its calculation.

The mean, median and mode are the measures of central tendency, used for analysing quantitative data.

Mean

The mean is usually referred to as an average. It is the sum of a group measurements divided by the total number of these measurements. It is usually near the middle of all the measurements or numbers being studied, and can be calculated as follows:

Example of calculating the mean

For ten children attending a growth monitoring clinic in one session, their ages in months were, 5,7, 5, 3, 6,8, 6, 4, 4, 2. The mean age of these children is:

Number of children = 10

Sum of their ages = 50

Therefore, the mean age is = $\frac{50}{10}$ = 5 months

Median

The median is the value that divides a distribution into two equal halves. The median is useful when some measurements are much bigger or much smaller than the rest.

To obtain a median do the following:

List all the observations (from the lowest to the biggest)

- Count the number of observations (n)
- The median value is the value belonging to observation number (n+1)/2 for an uneven number of observations and (n/2) for an even number of observations

a) For example the median for the following numbers

5, 7, 5, 3, 6, 8, 6,

Re-order the numbers 3, 5, 5, 6, 6, 7, 8

The median value belonging to observation number

(7 + 1)/ 2 = the fourth one, which is 6

b) For example:

5, 7, 5, 3, 6, 8, 6, 4

Re-order the numbers 3, 4, 5, 5, 6, 6, 7, 8

The median value belonging to observation number

(8/2) = the average between observation 4 and 5

The median is 5½

Mode:

The mode is the most frequently occurring value in a set of observations

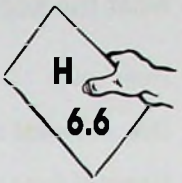
For example

If the ages of mothers attending antenatal care are:

21, 32, 20, 21, 34, 23, 21, 19, 23, 22, 21

The mode is 21

Handout 6.6



General Points on Writing a Report

There are some general points which you will find useful whatever the type of report you are writing and whatever the audience. These are listed below.

Keep it Short

Very long reports tend to be used less than short ones. Who has time to read a long report?

Keep it Clear

The report is supposed to be read and understood. Avoid very technical words and jargon. Use simple, clear and precise words wherever possible.

Use Short Sentences

Try to use not more than 20 words (and if possible less then 16) in each sentence. Use positive sentences. Do not put a lot of ideas in one sentence.

Plan Spacing and Layout

For a clearer layout, break up the text into short paragraphs to help the reader. Present only one idea in each paragraph.

Use Subheadings

These help people to remember what they read and make the report more interesting.

Emphasise Key Points

Use larger letters, underline changes in type style, and use stars (asterisks), dots, boxes, etc; to emphasise key points in the report.

Use a Running Commentary

In a wide margin besides the main text of the report present the key points from the text in the form of a running commentary.

Use Listing and Checklists

Information can be presented more concisely and absorbed more easily if it is presented in a list form. It also saves space, and the reader's time.

Avoid Long Footnotes

Present additional information or references very briefly. Try not to use footnotes.

Edit Your Report Carefully

If possible leave a day between completion of the report and its final editing. This will be very helpful as it will allow you to take a fresh look at it.

What the Report Needs to Contain

Front cover

Title, name and location of programme.

Names of those who carried out the evaluation.

Names of those with whom programme is linked, such as ministries, agencies, etc.

Period covered by the report.

Date report completed.

Summary

A brief one- or two-page overview of the report is useful for busy readers and those who wish to study it in more detail.

Explain the purpose of the evaluation; for whom it was carried out; how; where; when; major results: conclusions; and recommendations.

Write the summary list last.

A question-and-answer style, or a specially designed diagram or table of the information, may be useful.

List of contents

A list of contents in clear, logical order will help the readers to find sections of special interest to them.

Background information

This puts the programme into perspective and shows its origin, objectives and evolution.

Explain briefly when, why, and how a programme began, who was involved by type/age/group/training/number, etc.

Which were the priority objectives?

Which were the main activities and resources involved?

The length of this section will depend on the objectives of the report and the space available. Programme proposals, plans, reports, minutes of meetings, memos, etc can be used to provide information.

Ensure this section does not overlap with other sections (for example, manpower and resources).

Different opinions may have to be ironed out or presented as they are.

Purpose of data collection methods chosen

Explain the purpose of the data collection and state the intended audiences.

Be clear about what it is not intended to do.

Explain briefly the reasons for the particular evaluation plan and the methods used to obtain the information.

Include samples of methods used where necessary (for instance, questionnaires and an appendix).

Mention problems of manpower, finance, physical resources and political context (where appropriate). This can be drafted at the planning stage.

Outcome of using the methods

Where and how were the evaluation methods developed and tested before use?

How was the information collected and by whom, and which methods were used?

How reliable and valid did they prove to be?

Include any timetable or evaluation schedule in an appendix.

Also mention unintended results, if appropriate.

Results of data collection and analysis

After the analysis of the facts, figures and information collected, tables, graphs, test results, etc. can be prepared and included.

You may also want to include typed examples from tape recordings, illustrations or photographs. These can often convey a particular point which cannot be expressed in any other form, for example numerically.

Briefly describe the methods you used to analyse the information, either with the results or at the beginning of the section.

Conclusions

These may include the following:

To what extent have the programme objectives been achieved?

Which aspects of the programme (such as planning, management, monitoring training, field activities, etc) are strong, and which need to be strengthened?

Have human and material programme resources been used efficiently?

How has the programme changed with time?

What are the financial costs and benefits?

What predictions can be made for the short/long term future of the programme?

Most important of all, what effect or impact is the programme having?

Recommendations

On the basis of your conclusions what course(s) of action are proposed?

How are these to be implemented, by whom and when? List your recommendations.

This may be the part of the report which some people read first. It may be the only part which they read. Identify the priority recommendations.

Transparency 6.1

T 6.1

Rules of Report Writing

- **Simple.** Keep it short
- **Justify.** Make no statement that is not based on facts
- **Quantify.** Avoid "Large", "Small", instead, say "almost 75%", "one in three", etc.
- Be precise and specific
- Inform, not impress. Avoid exaggeration
- Use short sentences
- Aim to be clear, logical, and systematic in your presentation

Transparency 6.2

T 6.2

Main Components of a Research Report

- Title or cover page
- Executive summary
- Acknowledgements (optional)
- Table of contents
- List of tables, figures (optional)

1. Introduction
2. Objectives
3. Methods
4. Findings
5. Discussion and Conclusion
6. Recommendations
7. References
8. Annexes (e.g. data collection tools, such as questionnaires; additional tables)

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Health Systems Trust