Unit 3 – Technical Factors Contributing to Successful Programmes

Introduction

Welcome to Unit 3 of this module. We hope that Unit 2 provided you with some insight into the socio-political factors that contribute to successful nutrition programmes. You should also have gained some practical advocacy strategies to use when developing nutrition programmes in your district.

In the final unit, we focus on planning nutrition programmes, targeting programmes and on the monitoring and evaluation process.

Study Session 1: Planning Nutrition Programmes
Study Session 2: Nutrition Information Systems
Study Session 3: Targeting Nutrition Programmes
Study Session 4: Monitoring and Evaluating Nutrition Programmes

Learning outcomes of Unit 3

By the end of Unit 3, you should be able to:

- Identify the information necessary for completing a nutritional situational assessment.
- Use the Triple A Approach and the UNICEF Conceptual Framework to design nutrition programmes.
- Suggest a set of nutrition interventions for your own context.
- Identify appropriate information required to assess a nutrition programme.
- Describe the link between the Triple A approach, the Conceptual Framework and information systems.
- Examine the use of growth monitoring and promotion as a pragmatic response.
- Explain how targeting and coverage are interrelated, and how they relate to programme objectives.
- Critically analyse these nutrition programmes in terms of targeting and coverage.
- Discuss the application of different targeting strategies.
- Monitor and evaluate nutrition programmes.

Here are some additional references relevant to nutrition which may be useful to you. Two of them are available online:

- NFCS. (2000). Labadarios, D. (ed). (2000). The National Food Consumption Survey: Children Aged 1-9 years: South Africa. (1999). [Online]. Available: www.sahealthinfo.org/nutrition/food consumption.htm
- Kean, L.G., Ntiru, M.K. & Giyose, B.D. (1999). Nutrition Briefs. Washington: CRHCS, USAID, SARA Project.
- SAVACG. (1994). Labadarios, D. & Van Middelkoop, A. (1995). Children aged 6-71 Months in South Africa, 1994: Their Anthropometric, Vitamin A, Iron and Immunisation Coverage Status. The South African Vitamin A Consultative Group (SAVACG). Isando, Johannesburg. [Online]. Available: www.sahealthinfo.org.za/nutrition/vitamina.htm

These four sessions contain both theoretical and practical aspects of the topic. Hopefully you will find them relevant both to your assignment and to your work in the field.

Unit 3 – Session 1 Planning Nutrition Programmes

Introduction

Welcome to the first session of Unit 3 which focuses on planning nutrition programmes. This session will review the planning process as well as the different interventions relevant to addressing specific nutrition problems. In the session, we introduce a strategy called Triple A Situation Assessment. We hope you will find it helpful in your situation.

Contents

- 1 Learning outcomes of this session
- 2 Readings
- 3 The UNICEF Conceptual Framework
- 4 The Triple A Cycle
- 5 Planning Interventions
- 6 Session summary

Timing of this session

This session contains five readings and ten tasks. It should take you three hours to complete.

1 LEARNING OUTCOMES OF THIS SESSION

By the end of this session, you should be able to:

- Identify the various components of the UNICEF Conceptual Framework.
- Identify the information necessary for completing a nutritional situational assessment.
- Use the Triple A Approach and the UNICEF Conceptual Framework to design nutrition programmes.
- List different types of nutrition interventions.
- Suggest a set of nutrition interventions for your own context.

2 READINGS

Author/s	Publication details
Jonsson, U. et al.	(1992). The UNICEF Nutrition Strategy. UNICEF. Handout from
	class by John Mason, Nutrition Programming and Planning, 2000.
Werner, D. &	(1997). Questioning the Solution: The Politics of Primary Health
Sanders, D. with	Care and Child Survival. Palo Alto: HealthWrights.
Weston, J. Babb,	
S. & Rodriguez, B.	
Chopra, M. &	(2000). <i>How to Conduct a Nutritional Situational Assessment</i> . Durban:
McCoy, D.	HST. [Online], Available:
	http://www.hst.org.za/sites/default/files/nutriasses.pdf [Downloaded:
	20.7.12].
Elder, L. K., Kiess,	(1996). Ch 3 - Project Preparation. <i>Incorporating Nutrition into Project</i>
L. & de Beyer, J.	Design. World Bank.
Scott, V., Chopra,	(2002). Conceptual framework for understanding and combating
M. & Sanders, D.	micronutrient deficiencies. Ch 9. Micronutrient Malnutrition Course for
	Southern Africa. University of Wageningen [in press].

3 THE UNICEF CONCEPTUAL FRAMEWORK

Let us begin this session with a description of the UNICEF Conceptual Framework.

READING:

Jonsson, U. et al. (1992). The UNICEF Nutrition Strategy. UNICEF. 5-33.

The UNICEF conceptual framework has been developed based on UNICEF's experience working in nutrition programmes globally. It has helped programme managers and planners to link the many different causes of malnutrition. Have the reading by Jonsson *et al* at hand, as we will refer to it in the course of this session.

As a tool, the UNICEF Conceptual Framework can be applied to a variety of different types of malnutrition e.g. iron deficiency, protein-energy malnutrition, and obesity, in different cultural, geographic and economic situations. In each application, the particular causes of malnutrition will be local and specific. This is where its strength lies. However, as with any tool, it is only as useful as the user allows it to be. The more specific you are about identifying the causes, the more useful it is in informing subsequent strategies to improve the nutritional status of the focus community.

READING:

Werner, D. & Sanders, D. with Weston, J. Babb, S. & Rodriguez, B. (1997). *Questioning the Solution: The Politics of Primary Health Care and Child Survival.* Palo Alto: HealthWrights.11-12.

TASK 1 - Identifying causes

Read pages 11-12 of Werner and Sanders (1997) and then answer the following questions:

- a) What are the causes of Rakku's death?
- b) List the causes under the following three headings: immediate causes, underlying causes and basic causes.

FEEDBACK

There is a multitude of factors that impact on the individual and the community's nutritional status. A newcomer in the field of nutrition studies can be justified in feeling overwhelmed by the complexity and diversity of these various factors. The UNICEF Conceptual Framework is therefore a useful tool that systematically groups these factors. It describes three levels of factors that impact on nutrition: immediate, underlying and basic. This forms the framework for a conceptual understanding of the causes of malnutrition. (See the UNICEF Conceptual Framework *Causes of Malnutrition* diagram below).



TASK 2 - Apply the UNICEF Conceptual Framework to your community

Think about a nutrition problem in your community and use this conceptual framework to determine the three levels of causes.

FEEDBACK

Was the framework useful in determining the nutrition problem you identified? Now think of how this framework may help you develop a strategy to improve this problem. We shall re-visit the Conceptual Framework in another part of this session.

4 THE 'TRIPLE A' CYCLE

There is another useful tool for nutrition programme managers to use. It is known as the Triple A Cycle. In the *Health Management I and II* modules you learned about the planning cycle. For nutrition this cycle called the Triple A Cycle is used. It has three components, which are:



Reading: Jonsson, U. et al. (1992). The UNICEF Nutrition Strategy. UNICEF. 5-33.

TASK 3 - Considering the potential of these tools

Read the UNICEF Nutrition Strategy by Jonsson *et al* (1992), pages 5-11. List the ways in which the Conceptual Framework and Triple A Cycle can be used to design nutrition programmes and interventions.

FEEDBACK

You should have noted that in order to tackle the problem of malnutrition, the Conceptual Framework and the Triple A Cycle should be used in a participatory way with community members and representatives from the public and private sectors. The Framework should be used to inform participants about each stage of the Triple A Cycle. Initially the Framework helps in the *analysis*, by identifying the causes of malnutrition in the community, and then it can lead to the development of comprehensive and effective strategies in the *action* stage. The

Framework further helps to identify the key stakeholders from other sectors (e.g. housing, education and agriculture) who need to be involved in combating malnutrition. Lastly it helps to identify outcomes and impact targets for ongoing evaluation in a repeat *assessment*.

Let's now look in more detail at the first A of the Triple A Cycle – Assessment.

TASK 4 - Clarifying the reasons for situation assessment

Why is it important to conduct a nutrition situation assessment?

FEEDBACK

Your answer should have included some of the following points.

A nutrition situation assessment may serve:

- as the first step in the Triple A Cycle (Assessment, Analysis and Action) of a nutrition intervention;
- as an advocacy tool, by persuading policy makers and funders about the validity of your implementation plans;
- to assist in the future monitoring and evaluation of the nutrition intervention;
- to assist in the development of a district health system;
- to bring together different members of the district team to work on an intersectoral nutrition intervention;
- as an educational process for both the district nutrition team and the community as they come to realise the causes of malnutrition and set about combating them;
- to promote the participation of different community groups in particular, women, poor people and young people.

TASK 5 - Decide what information you need to do a situation assessment

Now let's imagine that 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 nutrition interventions. For example you would like to know how much under or over nutrition there is, and whether the population is living in urban or rural areas.

FEEDBACK

How did you do? Here are some points that you might have come up with:

- The geography of the district.
- The community composition (demographic details) of the district.
- The socio-economic profile of the district.
- The health status of the population, in particular their nutrition status.

As regards the nutrition status of the population, you would like to know about:

- The environmental health indicators.
- Important child care practices.
- Household food security.
- The quality and coverage of existing child, nutrition and welfare services and programmes, as they relate to nutrition.
- The resources available in the district to tackle undernutrition.

To make it easier to reflect on this information it can be rearranged into an information pyramid as shown below.



The bottom level of the pyramid represents a foundation of information about community composition, socio-economic factors, geography and existing resources and structures. It is important for nutrition planners to know about the community with which they are working and some of community resources available for nutrition interventions. It can assist in deciding what parts of the district need to be targeted first and whether there are very different groups of people within the district. The next level aims to establish the importance of the underlying causes of under nutrition such as child caring practices, the environmental context and distribution of food at the household level.

The third level concerns information on ill health and nutrition, and establishes the existence, coverage, accessibility and quality of nutrition and nutrition-related services. Finally, at the top of the pyramid is some general information about relevant national and provincial health and nutrition policies.

The information pyramid can also be used to help decide what data is missing and still needs to be collected. The team members should be asked to write down the pieces of information needed for each part of the pyramid e.g. clean water, water availability, low birth weight rate, quality of growth monitoring, and then which parts of this information are already available.

The next step in conducting a nutrition situation assessment (NSA) is to identify what information is already available, how it will be collected and who will collect it.

Remember that the main reason for doing a NSA is to assist in making decisions about appropriate nutrition interventions. The NSA is not designed to collect *all* information about nutrition, but *relevant* information that can be used to improve the quality of planning and implementation.

READING:

Chopra, M. & McCoy, D. (2000). How to Conduct a Nutritional Situational Assessment. Durban: HST. 4-22. (2000). *How to Conduct a Nutritional Situational Assessment*. Durban: HST. [Online], Available: <u>http://www.hst.org.za/sites/default/files/nutriasses.pdf</u> [Downloaded: 20.7.12].

TASK 6 - Key questions for a situation assessment

Study the reading by Chopra and McCoy and take note of the key questions that need to be asked to conduct a thorough situation assessment.

By making an assessment of these various possible causes and prioritising the most important and the most easily tackled, the nutrition team can plan interventions. Once you have completed your NSA, you should be able to identify the major nutrition problems in your setting. Based on the nutrition problems you have identified, there may be a number of possible different interventions that respond to the issue you have identified.

5 PLANNING INTERVENTIONS

Before reading about various intervention options, see how far you can get by drawing on your existing understanding.

TASK 7 - Brainstorming intervention options

Please complete the following table by filling in possible intervention options for each of the nutrition issues or problems listed. One example is done for you.

Nutrition Issues/Problems	Intervention Options
Low birth weight	
Child malnutrition and	Growth promotion: growth monitoring and counselling
growth failure	
Micronutrient malnutrition	
Household food insecurity	

FEEDBACK

READING:

Elder, L. K., Kiess, L. & de Beyer, J. (1996). Ch 3 - Project Preparation. *Incorporating* Nutrition into Project Design. World Bank. 23-45.

How did you do? The above reading outlines a number of options which nutrition programme managers have when they need to decide what to do.

The next step is to combine the situation assessment with an appropriate mix of interventions in order to design your nutrition programme. The next reading provides an example of this process.

READING:

Scott, V., Chopra, M. & Sanders, D. (2002). Ch 9 - Conceptual framework for understanding and combating micronutrient deficiencies. *Micronutrient Malnutrition* Course for Southern Africa. University of Wageningen. [in press]. 24-55.

TASK 8 - A case study of selecting an intervention

Study this reading and note how the Triple A Cycle was used to select an intervention. What else was essential to make this intervention effective?

FEEDBACK

We hope you noticed that deciding which interventions are the most appropriate was tackled by the use of the Triple A Cycle, the Conceptual Framework and *knowledge of the different types of possible interventions*. Try to use this methodology when designing nutrition programmes and interventions in your area, as it has been found to be very effective.

TASK 9 - Trying out the framework

Make a list of the possible causes of low birth weight using the following table, then use the Conceptual Framework to devise a series of interventions around low birth weight in your area. Proposing interventions does, as we emphasised, require some background knowledge of the particular problem.

Possible Interventions

FEEDBACK

We hope that your table included some or all of the following immediate, underlying and basic causes of low birth weight in developing countries:

- Immediate causes: Poor maternal nutrition status and weight gain during pregnancy because of lack of dietary intake, infections during pregnancy such as sexually transmitted infections, malaria.
- Underlying: Food given to the father and children in household first, poor environmental conditions leading to increased infectious diseases such as

malaria and diarrhoea, pregnant mothers engaged in heavy labour, poor quality diet consumed, alcohol or smoking during pregnancy, poor access to ante-natal care.

Basic: Poverty, discrimination against women.

Here are some possible interventions that you may have considered for each level:

- Immediate: Supplementary feeding of pregnant mothers who have poor weight gain; aggressive detection and treatment of STDs during pregnancy; improving quality of ante-natal services; communication campaign to improve iron supplementation adherence.
- Underlying: Campaign to increase community awareness of importance of good diet for pregnant mothers; establishing *maternity villages* where pregnant mothers can come for rest in the last trimester; education campaign to reduce smoking and alcohol consumption during pregnancy.
- Basic: Encourage formation of support and income generating groups for pregnant mothers; raise status of women in the community.

The challenge is now one of trying to connect the various interventions so that they complement and support one another. In this instance, we might establish or link in with existing women's groups and begin a campaign on how to have a healthy baby through a good diet, the importance of prompt treatment of infections and reduction in smoking and drinking. This could be supported by establishing community gardens to supply nutritious food to the pregnant mothers.

TASK 10 - Checking your understanding of the Conceptual Framework

Here is a task which you can use to test and apply your understanding of the Conceptual Framework. Go back and review the successful programmes in Unit 1. Reflect on how they have they used the Conceptual Framework to ensure integrated nutrition interventions.

6 SESSION SUMMARY

Well done! You have reached the end of the first session of Unit 3. You should now have a good understanding of the Triple A Cycle and the UNICEF Conceptual Framework, and how to apply them to nutrition programmes in your own context. In the next session, we will consider the importance of nutrition information systems in the process of conducting a Triple A Assessment.

Unit 3 – Session 2 Nutrition Information Systems

Introduction

Welcome to the second session of Unit 3. In Session 1, we focused on planning nutrition programmes – this involved the use of Triple A Assessment and the UNICEF Conceptual Framework. Remind yourself of the three levels at which determinants of nutrition problems are considered in this framework. In this session, we think about the assessment of programmes. You are briefly introduced to nutrition information systems, an essential component of any nutrition programme and particularly of assessing its success. In addition, growth monitoring and promotion is introduced and critically evaluated as a programmatic response in nutrition situations.

Contents

- 1 Learning outcomes of this session
- 2 Readings
- 3 Key issues in assessing programmes
- 4 Growth monitoring and promotion
- 5 Session summary

Timing of this session

This session contains five readings and five tasks. It should take you about two hours to complete.

1 LEARNING OUTCOMES OF THIS SESSION

By the end of this session you should be able to:

- Identify appropriate information required to assess a nutrition programme.
- Describe the link between the Triple A approach, the Conceptual Framework and information systems.
- Examine the use of growth monitoring and promotion as a programmatic response.

2 READINGS

Author/s	Publication details
Jonsson, U. <i>et al.</i>	(1992). The UNICEF Nutrition Strategy. Handout from class by John
	Mason, Nutrition Programming and Planning, 2000. 5-33.
Pelletier, D.	(1995). The Role of Information in Enhancing Child Growth and Improved
	Nutrition: A Synthesis. Ch 16 – (Eds). Pinstrep-Andersen, P., Pelletier, D.
	& Alderman, H. Child Growth and Nutrition in Development Countries
	Priorities For Action. Cornell University Press.
Griffiths, M., Dickin,	(1996). Promoting the Growth of
K. & Favin, M.	Children: What Works. Rationale and Guidance for Programs. The World
	Bank.
Chopra, M. &	(1997).Growth Monitoring – is it a task worth doing in South Africa? South
Sanders, D.	African Medical Journal, 87(7): 875-878.
Hendrata, L. &	(1988). Ten Pitfalls of Growth Monitoring and
Rohde, J.	Promotion. The Indian Journal Of Pediatrics. Supplement, 55(1): S9-S15.

3 KEY ISSUES IN ASSESSING PROGRAMMES

You have learnt that there are many components of a programme that ensure success. They can be divided into contextual factors (such as community participation, water and sanitation provision etc) and technical factors.

3.1 Three important indicators: coverage, targeting and intensity

Amongst the most important of what we call technical factors is the *coverage* and *targeting* of your programme. In other words:

- Coverage: What percent of the at-risk population are participating in the programme?
- Targeting: To what extent is this coverage oriented towards the most needy?
- A third criterion is described as *intensity*. This refers to how much of the resources are used per participant, which may be quantified as rands per participant per year, or the number of children per mobiliser/facilitator and so on.

Internationally it has been suggested that around R60 to R160 per participant per year seems to be associated with effective programmes. This includes those that do not include provision of supplementary food, which could double the cost.

In principle, these three measures - coverage, targeting, and intensity can be obtained from programme data. In many cases well-conceived programmes may be ineffective simply because their coverage is too low to have a broad impact on the problem, or because they do not reach those most in need. In other cases, the principles may be correct but an unrealistically low level of resources is committed, so nothing much really happens. These criteria or indicators pick up such issues. The next session (Unit 3 Study Session 3) focuses in more detail on targeting and coverage.

3.2 Programme content

The next question in analysing nutrition-relevant actions concerns the programme content. If programmes are reaching the needy and are adequately resourced, they should be effective provided that they address real causes of malnutrition, ones that are open to modification, and if interactions with other conditioning factors are taken into account.

Programmes need to fit the local context. For example, the actual changes in behaviour which are aimed at need to be relevant and important. For example, some common practices that are not appropriate or optimal for infant feeding (like late initiation of breastfeeding) are still promoted. Another example is the misconception that still persists that inadequate protein intake is a major issue: even though some 30 years have passed since it was realised that protein requirements had been overestimated, some programmes still treat this as an issue.

Further, programme components must be recognised as a priority by the communities themselves. Water supply is a common concern, for instance, and village health/nutrition programmes that fail to address this

may be seen as of marginal relevance to a community's real problems. On the other hand, growth-monitoring is remarkably popular, but all too often, it is not linked to anything that actually promotes growth. It should form the basis for many community actions, but obviously without these actions, it has no effect and can be a waste of resources.

3.3 The importance of information systems

Finally, programme evaluators or assessors often remark on the inadequacy of information systems in most nutrition programmes. Information is a critical link in decision-making. However, in many instances, the information used for decision-making is not reliable enough or not appropriate for the type of decision being made. For the Triple A Cycle of assessment, analysis and action to work, reliable information at the appropriate level is absolutely essential. The next section of Jonsson *et al*, the UNICEF Nutrition Strategy and Pelletier (1995) make this point very clearly.

READINGS:

Jonsson, U. et *al.* (1992). *The UNICEF Nutrition Strategy*. Handout from class by John Mason, Nutrition Programming and Planning, 2000. 12-33..

Pelletier, D. (1995). The Role of Information in Enhancing Child Growth and Improved Nutrition: A Synthesis. Ch 16 – (Eds). Pinstrep-Andersen, P. Pelletier, D. & Alderman, H. *Child Growth and Nutrition in Development Countries Priorities for Action.* Cornell University Press.

TASK 1 - Clarifying the value and usage of information strategies

Using the readings, fill in this table.

	Uses of information	Information strategies
Household Level		
Community Level		
National Level		

What did you learn? Is it clear why information for decision making is so important?

FEEDBACK

The two main principles for the use of information for action are firstly, to collect *the minimum feasible amount of data required to inform and improve decisions leading to action*, and secondly, *to maximise the use of data at the level at which they are collected*. Information is only useful if it is used, and the frequency of *needing to know* decreases as information flows to more central levels. For example, district-aggregated growth monitoring data may be used to track

progress of a programme every few months at the state level, yet individual growth data should be used at the time they are collected at the level of the child.

Information is, in other words, used to manage nutrition programmes. A management information system (MIS) should specify the following:

- Purpose of data collection who needs to know what, to do what.
- Type and quantity of data to be collected, by whom and how frequently.
- Means of transmitting such data, to whom, and how frequently.
- Type of minimum analysis to be carried out at each level.
- Types of action envisaged on the basis of such analysis, at each level.
- System to be adopted for data validation and data quality improvement.
- Communities' role in monitoring and in targeting at-risk households.
- Level of aggregation required (regions, communities, households).
- Indicators that are valid, reliable, sensitive, feasible as well as acceptable to beneficiaries.

TASK 2 - Assess the information systems used in several case studies

Select two of the nutrition programmes that you have focused upon e.g. in the readings below. List all the different indicators collected by the programme and the information strategies used. Assess whether the information collected is reliable enough and appropriate for making good decisions about the programme. Make recommendations on how the information strategy of the programme could be improved. Use the criteria above to assess the systems.

Kachondham, Y., Winichagoon. P., Tontisirin, K. (1992). *Nutrition and Health in Thailand: Trends and Actions*. UN ACC/SCN country case study supported by UNICEF. Institute of Nutrition, Mahidol University: 35-50.

Soekirman, I.T., Jus'at, I., Sumodiningrat, G. & Jalal, F. (1992). *Economic Growth, Equity and Nutritional Improvement in Indonesia.* UN ACC/SCN country case study supported by UNICEF, UN Administrative Committee on Coordination, Subcommittee on Nutrition:17-22.

Reddy, V., Shekar, M., Rao, P. & Gillespie, S. (1992). Nutrition in India. National Institute of Nutrition, Hyderabad, India. UN ACC/SCN country case study supported by UNICEF: 16-20.

Kavishe, F. P. *Nutrition-Relevant Actions in Tanzania*. UN ACC/SCN country case study supported by UNICEF. Tanzania Food and Nutrition Centre: 148-157.

4 GROWTH MONITORING AND PROMOTION

Growth monitoring and promotion (GMP) is quite often promoted as an important component of nutrition programmes. It is often used as a way to collect important

information for programme management. We will now examine the strengths and weaknesses of GMP as a programmatic response.

In the next reading, a strong case is made for growth monitoring and promotion. This is evident in the title of the chapter: "experience demonstrates that growth promotion increases program efficiency and effectiveness".

READING:

Griffiths, M., Dickin, K. & Favin, M. (1996). Promoting the Growth of Children: What Works. Rationale and Guidance for Programs. The World Bank. 31-62.

TASK 3 - Applying an approach to growth monitoring to your own experience

As you read Griffiths et al, reflect on whether the nutrition programmes that you work with use growth monitoring in this way.

Unfortunately GMP is a misunderstood activity that leads some people to question its use in nutrition programmes. In the next reading the authors provide some provocative arguments around GMP.

READING:

Chopra, M. & Sanders, D. (1997).Growth Monitoring – is it a task worth doing in South Africa? *South African Medical Journal*, 87(7): 875-878.

TASK 4 - Critical analysis of GMP

- a) Do you agree with what Chopra and sanders (1997) have to say? What arguments do they make against growth monitoring?
- b) If you do not agree with their arguments, why not?

FEEDBACK

The authors are not saying that growth monitoring is a waste of time but that we need to critically evaluate whether it is fulfilling its potential in whatever setting in which it is being performed. Some of the reasons why it might not fulfill its potential are further explored in the next reading.

READING:

Hendrata, L. & Rohde, J. (1988). Ten Pitfalls of growth monitoring and promotion. *The Indian Journal of Pediatrics. Supplement*, 55(1): S9-S15.

TASK 5 - Identify common pitfalls in your

Compare the pitfalls described by Hendrata and Rohde (1988) with your own programme or one with which you are familiar. Are any of them common in this nutrition programme?

FEEDBACK

By now, we hope you are convinced about the role that GMP can play in nutrition programmes. It is important, however, that programme managers and workers should clearly understand the role and usefulness of GMP in nutrition programmes.

5 SESSION SUMMARY

Effective information systems are an important part of successful nutrition programmes. They are crucial for ensuring quality within the programme. Data that is collected at the local level and sent centrally for analysis should always be promptly fed back in a clear format to a lower level. Such analyses could compare outcomes across different sites or measure trends. But for the information system to improve the quality of the programme, the information system must itself be of high quality. This means that:

- Everybody should have a clear idea of why the data is being collected.
- Appropriate data should be collected.
- Data quality checks should be routinely performed.
- Feedback should be prompt and actions should result.

If not, an information system will be of no real value to programming.

You have come to the end of Session 2. In Session 3 of Unit 3, you will focus in more detail on targeting. Take a quick break before you start on the second last session of this module.

Unit 3 – Session 3 Targeting Nutrition Programmes

Introduction

Welcome to the third session of Unit 3 which focuses in more detail on some of the considerations related to targeting and coverage of nutrition programmes. These considerations include issues of impact and cost effectiveness and they also play a part in deciding whether a programme should play a preventive or a therapeutic role. Remember that targeting was introduced in Session 2 as a criterion or indicator of impact as well as a monitoring and evaluation tool.

Contents

- 1 Learning outcomes of this session
- 2 Readings
- 3 The importance of targeting and coverage
- 4 Different targeting strategies
- 5 Targeting costs versus benefits
- 6 Targeting for prevention versus targeting for therapy
- 7 Session summary

Timing of this session

This session contains two readings and two tasks. It should take you two hours to complete.

1 LEARNING OUTCOMES OF THIS SESSION

By the end of this session you should be able to:

- Explain how targeting and coverage are interrelated, and how they relate to programme objectives.
- Critically analyse these nutrition programmes in terms of targeting and coverage.
- Discuss the application of different targeting strategies.

2 READINGS

Author/s	Publication details
Jennings, J.,	(1991). Ch 1 - Targeting and Selection of Beneficiaries. <i>Managing</i>
Gillespie, S.,	Successful Nutrition Programmes. ACC/SCN State-of-the-Art Series,
Mason, J., Lotfi, M.	Nutrition Policy Discussion paper No 8. UN ACC/SCN.
& Scialfa, T.	
Morris, S. S. et al.	(1999). Does Geographic Targeting of Nutrition Interventions Make
	Sense in Cities? Evidence from Abidjan and Accra. World
	Development, 27(11): 2011-2019.

3 THE IMPORTANCE OF TARGETING AND COVERAGE

Can you remember from Unit 3 Session 2 what we meant by targeting in the context of nutrition programmes? We noted that the key targeting question is: *To what extent is this coverage oriented towards the most needy*?

Targeting for nutrition programmes can be defined as the identification and selection of specific groups whom the programme or intervention should reach, cover and benefit. Targeting decisions should flow from programme objectives and strategies. Clearly defining the target group or population to be addressed in a nutrition intervention is an important step in the planning process.

Targeting can take place at different levels and most interventions usually involve targeting on more than one level. Appropriate targeting and effective implementation of targeting can greatly assist the implementation process and contribute to cost-effectiveness and cost-benefits of any programme or intervention. You should, however, note that a prerequisite for good targeting is the availability of information.

A continuous interaction between targeting and the management of information systems is essential in order to achieve the greatest cost benefits while remaining sensitive to changing needs.

Targeting is, however, interlinked with *coverage*. The need for and desire to reach the specific group for whom the nutrition programme is intended, highlights the need for monitoring and evaluation of programme coverage. Coverage refers to the number or proportion of the target group reached by the programme or intervention. Coverage, therefore, is an indication of the degree of success of the targeting process.

READING:

Jennings, J., Gillespie, S., Mason, J., Lotfi, M. & Scialfa, T. (1991). Ch 1 - Targeting and Selection of Beneficiaries. *Managing Successful Nutrition Programmes*. ACC/SCN State-of-the-Art Series, Nutrition Policy Discussion paper No 8. UN ACC/SCN. 4-8 & 9-20.

Task 1 - Analysing issues of coverage

In the above reading, review the summary of programme characteristics on pages 4-8. Based on the reading, answer the following questions:

- a) Identify the programme that achieved the best coverage of the specific target group.
- b) Why didn't some of the programmes achieve good coverage?
- c) Do you think that it is important to change the target groups for those programmes that did not achieve good coverage?
- d) Suggest other measures to improve coverage.
- e) How would these measures affect cost-effectiveness of the programme?
- f) Identify different targeting approaches used by programmes with a preventive approach versus those with a more curative approach.

4 DIFFERENT TARGETING STRATEGIES

Now study this reading by Morris et al and do Task 2.

READING:

Morris, S. S. et al. (1999). Does Geographic Targeting of Nutrition Interventions Make Sense in Cities? Evidence from Abidjan and Accra. *World Development*, 27(11): 2011-2019.

TASK 2 - Exploring different targeting strategies

- a) Do you agree with the viewpoint of the authors on targeting strategies?
- b) Which targeting strategy do you think would be most useful in South African urban areas?
- c) Which ones do you think would be more useful in rural areas?

d) Imagine that you are the manager of a provincial nutrition programme. You have a limited budget and have to choose between different target groups or varying degrees of coverage, for example provide school feeding to all children in Grade 1-3 or only feeding the most needy, but in all grades. Explain how you would approach this particular dilemma and highlight specific factors that you might consider relevant to inform your decision.

FEEDBACK

It should be noted that in most cases, components of a nutrition programme have different targeting strategies. For example, a feeding programme might have strict selection criteria, while other components such as nutrition education are directed at the community at large.

5 TARGETING COSTS VERSUS BENEFITS

Let us find out more about targeting costs and benefits. The purpose of targeting is generally to reach the most needy and to ensure that programme resources are used in the most efficient way. Various aspects might influence the success and cost-effectiveness of targeting. In some cases, the start-up costs of a programme, and/or the specifics of the targeting strategy, do not make it worthwhile to limit the operation to the specific problem, for example seasonality in drought relief.

Geographic targeting is most appropriate in situations where large proportions of the population are vulnerable and poor. It must be accepted that using geographic targeting alone would imply that the better-off would also receive programme benefits. This cost needs to be weighed up against the benefit of avoiding *labeling* of particular groupings. It has been suggested that if less than 20 percent of the households or children of an area are nutritionally needy, geographical targeting by itself is unlikely to work.

Biological group selection might also assist in avoiding stigmatising groups, but if food supplements form part of the nutrition programme, it must be acknowledged that although the programme might be targeted at an individual, that person is part of a household and leakage within the household is to be expected. Again, the cost of this leakage needs to be weighed up against the benefits of the programme to the most needy. Although some degree of leakage needs to be assumed, it is recognised that targeted programmes are most likely to demonstrate measurable nutritional effects.

Different methods have been proposed for choosing a targeting strategy:

- To draw up a matrix listing the characteristics of the target programme (age, location, consumption, occupation) in comparison with the characteristics of the proposed non-target populations.
- To draw up a 2x2 table in which the "proportion of total targeted that are needy" are compared to the "proportion of the total needy that are targeted".

All of the above supports the need for careful monitoring and evaluation of a programme. Often the monitoring and evaluation component is focused on the programme process, but outcome or impact evaluation is as critical to tailoring targeting strategies and ensuring cost-effectiveness.

6 TARGETING FOR PREVENTION VERSUS TARGETING FOR THERAPY

Concerns have been raised that highly targeted nutrition programmes provide only a curative component. Providing a preventive component would be included in the programme goals and objectives and should be considered in the initial nutrition programme planning. This would imply that targeting (i.e. eligibility criteria) needs to be done accordingly. For example, targeting of children in a preventive approach would suggest that instead of only selecting malnourished children, one should include children showing signs of nutritional stress such as growth faltering, or children during periods of weaning. Differentiation of the programme components, (for example food supplementation + environmental sanitation + nutrition promotion), together with different targeting strategies for these different components, might ensure a curative and promotive component whilst containing the cost.

Finally, targeting is often a politically volatile issue. It is important that nutrition programmes consider how their targeting strategy can be made acceptable to those concerned.

7 SESSION SUMMARY

In this session, we have looked at targeting and coverage as two interrelated considerations and examined some of the cost and impact implications of targeting. In the final session of this module, we will explore monitoring and evaluation of nutrition programmes.

Unit 3 – Session 4 Monitoring and Evaluating Nutrition Programmes

Introduction

Welcome to the last session of this Unit and the final one of the module. In it we focus on monitoring and evaluation of nutrition and nutrition related programmes. In this session, you will explore the differences between monitoring and evaluation and why it is important to monitor and evaluate your programmes. You will also learn about indicators for monitoring and evaluation as well as evaluation design. Finally you will learn about different methods of data collection and analysis and how to report evaluation findings. By the end of it, you are expected to be able to monitor and evaluate a nutrition programme.

Contents

- 1 Learning outcomes of this session
- 2 Readings
- 3 Introduction to monitoring and evaluation
- 4 Steps in conducting monitoring activities
- 5 Programme Indicators
- 6 Evaluation designs and sampling
- 7 Report writing and dissemination
- 8 Session summary

Timing of this session

This session contains four readings and eleven tasks. It should take you about three hours to complete.

1 LEARNING OUTCOMES OF THIS SESSION

By the end of this session, you should be able to:

Monitor and evaluate nutrition programmes. To do this, you should be able to:

- Differentiate between monitoring and evaluation.
- Explain the importance of monitoring and evaluation in nutrition programmes.
- Describe the process of monitoring and evaluation.
- Explain the steps in conducting monitoring and evaluation activities.
- Select appropriate programme indicators for monitoring and evaluation.
- Describe different evaluation designs.
- Develop instruments for monitoring and evaluation.
- Distinguish between qualitative and quantitative data analysis.
- Write monitoring and evaluation reports.

2 READINGS

Author/s	Publication details
Levinger, B.	Mini-handbook: How to Design a Monitoring and Evaluation System to Improve the Quality of CRS-Sponsored School Feeding
	Interventions. No details available.
Kuzwayo, P. <i>et al.</i>	(1999). <i>Monitoring and Evaluation of Nutrition and Nutrition-Related Programmes</i> . Nairobi: The Applied Nutrition Programme.
Feuerstein, M.	(1986). Chapter 4 - Designing and Conducting Health Systems Research Projects. <i>Partners in Evaluation: Evaluating Development</i> <i>and Community Programmes with Participants</i> . Vol 1 Module 11 Vol 2 Module 23 & 24. TALC, London. 64-110.
Fisher, A. A., Laing, J. E., Stoeckel, J. E. & Townsend, J. W.	(1991). Ch 7 - Study Design. <i>Handbook for Family Planning and Operations Research Design:</i> 30-39.

ADDITIONAL READINGS

We would like to point out that this session can only serve as a brief introduction to monitoring and evaluation of nutrition programmes. For a more comprehensive understanding of this critical programme component, please consult the following references:

- i) ANP, University of Nairobi, School of Nutrition Science and Policy, Tufts University and the SANA Project. *Monitoring and Evaluation of Nutrition and Development Programmes.* Academy for Educational Development, Washington D.C.
- ii) Feuerstein, M-T. (1992). *Partners in Evaluation: Evaluating Development and Community Programmes with Participants.* MacMillan.
- iii) FAO. (1999). *Field Programme Management: Food, Nutrition and Development*. FAO, Rome.
- iv) Rossi, P.H. & Freedman, H. E. (1982). *Evaluation: A Systematic Approach*, Sage Publications.
- v) Bhola, H.S. (1979). *Evaluating Functional Literacy*.
- vi) Bertrand, J. Magnani, R. & Rutenberg, N. (1996). *Evaluating Family Planning Programmes with Adaptations for Reproductive Health.* The Evaluation Project.
- vii) WHO. (1994). *Designing and Conducting Health Systems Research Projects.* Vol. 1 & 2. Geneva: WHO.

We also recommend the SOPH module: *Monitoring and Evaluation in Health and Development Projects.*

3 INTRODUCTION TO MONITORING AND EVALUATION

You are no doubt aware that monitoring and evaluation are integral parts of a programme and should be built into programme design during the planning stage of a nutrition programme. They are important technical factors that contribute to successful nutrition programmes.

Let's begin this session by clarifying the meaning of monitoring and evaluation using the reading by Levinger.

READING:

Levinger, B. (nd). *Mini-handbook: How to Design a Monitoring and Evaluation System to Improve the Quality of CRS-Sponsored School Feeding Interventions.* No details available.1-4.

TASK 1 - Clarify the concepts monitoring and evaluation

After working through the reading, write your own definitions of *monitoring* and *evaluation*.

FEEDBACK

How did you do? Your definition of monitoring should include some or all of the following points:

- Monitoring is the systematic attempt to examine programme operations, including coverage and the delivery of services by assessing what was supposed to have been done and determining if it was actually done as planned, within the planned time frame, for the targeted population, and in an effective way.
- Monitoring can also include the collection of information about programme activities to see if they comply with legal and regulatory requirements.
- Monitoring is the process of continuous and periodic surveillance of the physical implementation of a programme through timely gathering of systematic information on work schedules, inputs delivery, targeted outputs, and other variables required for the programme to have the desired effects and impact.
- Monitoring is an integral part of the management information system.
- Monitoring is a management support function and monitoring reports can be used as a basis for internal review (evaluation) of programme operations at the management and technical levels.

Here is an explanation of evaluation. Your answer could include the following:

- Evaluation is the systematic collection of information on the conceptualisation, design, implementation and/or impact of an intervention or programme.
- Evaluation serves two important functions by determining (a) the extent to which desired changes have occurred in the light of programme objectives, and (b) whether the project is responsible for such changes.
- Evaluation is the process by which the relevance, effectiveness and impact of a programme are determined as objectively and systematically as possible in relation to the expected results and outputs.
- Evaluation is a programme tool and a verification process for measuring achievement of programme results and assessing a programme's relevance, efficiency and effectiveness in relation to its objectives within a given budget or available resources.

- Evaluation examines the effectiveness of institutional arrangements and management systems for programme delivery and also provides information for programme design and approval.
- Evaluation is an accountability tool that enables programme management to show the stakeholders as objectively as possible the achievements of the programme.

We hope the difference between monitoring and evaluation is clear. Now that you have clarified the difference between monitoring and evaluation, review why you think they are important. Part of the answer is contained in the points above.

READING:

Kuzwayo, P. *et al.* (1999). Monitoring and Evaluation of Nutrition and Nutrition-Related Programmes. Nairobi: The Applied Nutrition Programme. 3.1-3.10.

TASK 2 - The importance of monitoring and evaluation for nutrition programmes

Write down why you think these processes are important in the nutrition context and then use the reading by Kuzwayo *et al* to add any additional reasons that you may not have considered.

FEEDBACK

Your answers should include most of the following points:

- Monitoring nutrition programmes should help to assess the quantity, quality and timeliness of programme inputs and to verify that inputs through activities are transformed into outputs that generate results.
- Monitoring provides information to improve targeting and helps to identify operations constraints to programme effectiveness thus helping managers to improve implementation.
- Monitoring determines if a process or service, such as food fortification, is meeting national or some other accepted/set standards.
- Monitoring determines whether a programme is servicing the pre-identified target groups.

On the other hand evaluation is important because it can help to:

- Determine the worth or value of ongoing programmes.
- Increase the effectiveness of programme management and administration.
- Identify impacts that are attributable to a programme.
- Provide information that will permit cost effectiveness comparisons.
- Redesign an ongoing programme or shape a new programme.
- Satisfy the accountability requirements of donors and programme sponsors.

For more information on the importance of programme monitoring and evaluation, read reference (i) in the Additional Readings list above.

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TASK 3 - Identifying different kinds of evaluation

Draw a table that looks like the one below. Fill in the table by answering the following questions about each type of evaluation.

- Define each kind of evaluation: mid-term, summative, impact, process evaluation.
- Why should it be done?
- When should it be done?
- Who should do it?
- What are the questions that evaluators might ask in the different types of evaluations?
- How should the findings be used?

Mid-term/On-going Evaluation	Summative/Final Evaluation
Impact/Outcome Evaluation	Process Evaluation

FEEDBACK

We hope you found this task helpful. Were you able to answer all of the questions for each type of evaluation and fill in all the boxes? Here are some points you should have made for each type of evaluation.

MID-TERM/ON-GOING EVALUATION	SUMMATIVE/FINAL EVALUATION
What it isNAn assessment of the effectiveness and efficiency of a project when it is half way through the planned period.TWhy we do itFTo assess the effect so far of the programme To give an idea of whether the set objectives will be met within the project period. To justify the existence of the project to all stakeholders and implementers.T	 What it is The final assessment done at the end of a project plan. Results obtained help in making decisions about continuation/termination of a programme. Why we do it To determine the extent of achievement of the project. To determine the ability to move from one level to the next.
When it is conducted It is done halfway through the planned project period.VWho conducts it? Project implementers, donors, project managers, the beneficiaries, and external evaluation team.VQuestions answered by a mid-term evaluation Are the project components being delivered to the right and intended target group? Are there other people who should have been included in the target group? Is the coverage of the programme adequate? Are there any deviations in project implementation and if so have such deviations restricted the possibility of reaching the outcomes/objectives? Are there any constraints identified and what are their corrective measures?How the findings should be used All stakeholders should be involved in using the findings in modification of the programme, if the need arisesHere and the programme, the	 When it is conducted At the end of a programme/project plan. Who conducts it Project implementers. External evaluators and project implementers. Questions answered by a summative evaluation Have the objectives been met? How effective were the systems in place? What strategies did it use in implementing project activities? Have the needs changed? How the findings should be used It allays fears of researchers/implementers and other stakeholders. To justify extension of the programme. As a learning opportunity. For replication of the same in other areas. To solicit for more/further funding. To show stakeholders that the project went as planned / for satisfaction of the stakeholders.

IMPACT/OUTCOME EVALUATION	PROCESS EVALUATION
What it is It gauges the extent to which the intervention has caused change in the desired direction at a given time.	What it is Assessment of the efficiency and effectiveness of individual pre-determined stages of project implementation, beginning with the problem identification.
Why it is conducted? To determine the extent to which the intervention has achieved its set objectives. It also assists in exposing the positive and	It helps to identify external factors that impact on the project outputs.
To highlight whether it's important to document the intervention as a recommendation to stakeholders	To determine the cost effectiveness of strategies in each component of the project cycle.
When it is conducted	At every stage of the project cycle.
At a set time depending on the programme type.	Who conducts it Project staff and other stakeholders (beneficiaries, donors).
Who conducts it Implementers. External evaluators.	The questions process evaluation answers How was the problem identified? How were beneficiaries involved in project design?
The questions impact evaluation answers Is change due to the intervention? Are there other external factors influencing the change?	What external factors impacted on the project? What was the input cost compared to the output (cost effective)? To what extent are short-term objectives being met?
How the findings should be used To help a similar programme. Documentation and recommendation Help to re-plan.	How the findings should be used To help in redesigning and making amendments in project implementation. To identify positive factors that need to be reinforced. To help in re-allocation /re-classing of budget funds.

We hope you have a good understanding of the differences between monitoring and evaluation, as well as its importance and the different types of programme evaluation.

4 STEPS IN CONDUCTING MONITORING AND EVALUATION ACTIVITIES

In order to monitor a programme, it is useful to follow these steps.

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

Here are some guidelines for conducting evaluation activities.

EVALUATION GUIDELINES

Phase A - Planning the Evaluation
Determine the purpose of the evaluation.
Decide on type of evaluation.
Review existing information of programme documents including
Monitoring information.
Describe the programme.
Develop/refine conceptual framework.
Assess your own strengths and limitations.
Put together an evaluation team including stakeholders.
Phase B - Selecting Appropriate Evaluation Methods
Identify evaluation goals and objectives.
Formulate evaluation questions and sub-questions.
Decide on the appropriate evaluation design.
Develop an evaluation schedule.

Develop a budget for the evaluation.

Phase C - Collecting and Analysing Information

Develop data collection instruments.

Pre-test data collection instruments.

Undertake data collection activities.

Analyse data. Interpret the data.

Phase D - Reporting Findings

Write the evaluation report.

Decide on the method of sharing the evaluation results.

Decide on communication strategies.

Share the draft report with stakeholders and revise as needed.

Disseminate evaluation report.

Meet with project stakeholders to discuss and follow-up on findings once they have accepted the findings.

Phase E - Implementing Evaluation Recommendations Develop a new/revised implementation plan in partnership with stakeholders.

Monitor the implementation of evaluation recommendations and report regularly on the implementation progress.

Plan the next evaluation.

You should now have a broad overview of the concepts and processes of monitoring and evaluation. From this introduction, you can no doubt see that they should be built into programme design, that they are tools for the programme manager and that they are ongoing throughout the life of the project or programme. In the next section, we explore aspects of monitoring and evaluation in more detail, starting with programme indicators.

5 PROGRAMME INDICATORS

An indicator is a measure of progress towards meeting a programme's objectives. Indicators can measure a programme's inputs, outputs, outcomes, process and impact. Indicators are needed in order to monitor and evaluate programme implementation and impact. As many programme stakeholders as possible should participate in identifying and selecting indicators to ensure that their expectations and information needs are addressed. By comparing the same indicators over time, it is possible to measure change and determine where action needs to be taken.

5.1 Developing indicators

In field settings, direct measures may be impossible or impractical to gather. In such cases it is necessary to rely on indirect measures commonly known as *proxy indicators*. A proxy indicator can be used in place of an indicator. A proxy indicator is a measure that is used instead of a direct measure. It approximates another variable whose measure is not feasible or is impractical to measure. Examples of proxy indicators of socio-economic status include: the materials used to build a house, size of dwelling in relation to the number of members, and household possessions.

TASK 4 - Developing indicators for a programme

Think about the programme you are working on. Draw the following table and make a list of indictors and proxy indicators for your programme.

INDICATORS	PROXY INDICATORS
1	1
2	2
3	3

FEEDBACK

How did you do? You should realise that proxy indicators need to be validated to ensure that they are actually measuring what they intend to measure. Additionally, indicators are context-specific and validation in one situation does not automatically transfer to another. The appropriateness of proxy indicators often varies with programmes and communities.

READING:

Feuerstein, M. (1986). Chapter 4 - Designing and Conducting Health Systems Research Projects. *Partners in Evaluation: Evaluating Development and Community Programmes with Participants*. Vol 1 Module 11 Vol 2 Module 23 & 24. TALC, London. 64-110.

TASK 5 - Developing good indicators

This reading by Feuerstein explores the characteristics of good indicators. Complete the following table by identifying and selecting appropriate input, output, outcome, and impact indicators for your programme by answering the following questions:

- What information is needed to monitor the programme and to evaluate the programme?
- Who will collect this information?
- Where is this information to be found?
- Who will use the information?
- For what purposes will it be used?

5.2 Indicators for monitoring and evaluation

Type of prog	gramme:				
Element	Indicator	Source	Who collects	How often	For what purpose

FEEDBACK

We hope you found this task useful for monitoring and evaluating your programme. As your programme continues, you should use the information you have gained about the indicators to adjust your programme and make the needed changes. This will help to achieve programme objectives and keep the programme on track.

5.3 Characteristics of a good indicator

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

Simple

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

Clearly and precisely defined

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

number of underweight (WAZ < -2) children aged 6-24 months total number of children aged 6-24 months who were weighed

Measurable

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

Valid

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

Reliable

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

Variable

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

Sensitive

To be useful, indicators must be sensitive to change over time. Some indicators vary in one setting but not in another. For example, the materials used in house construction may be a good indicator of economic status in rural areas, where houses may be made of mud, sticks, or cement, but not in urban areas where the poorest households also live in cement structures.

6 EVALUATION DESIGNS AND SAMPLING

In this section of our session on monitoring and evaluation you will learn about different evaluation designs that can be used in your programme. Take a look at this reading and then try Task 6.

READING:

Fisher, A. A., Laing, J. E., Stoeckel, J. E. & Townsend, J. W. (1991). Ch 7 - Study Design. *Handbook for Family Planning and Operations Research Design:* 30-39.

TASK 6 - Reflect on evaluation designs

After this reading, decide which design is most appropriate for your own programme. Write a brief description of how you plan to apply the design to your programme.

FEEDBACK

Here are a few characteristics of experimental evaluation designs for you to consider.

6.1 Experimental evaluation designs

Control groups

The creation of a control group that shares the characteristics of the participant group permits concluding that any changes observed in the project group and not in the control group can be attributed to the project. Control groups are important for demonstrating positive project effects in situations of deteriorating nutrition status, e.g. nutrition status declining even more during a drought in a control group compared to in a participating group.

Randomisation to treatment

Valid comparisons are possible when project participation is the only difference between participant and control groups, and the only certain way to ensure that no differences exist between the groups is to randomly assign individuals to either participant or control group. Although random assignment is often an unrealistic (and sometimes unethical) choice for field-based nutrition projects, a valid comparison group can be found from a comparable area where the project has not yet begun activity. This, however, increases the possibility for error in the form of *bias* or *confounding*.

Pre- and post-analysis

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

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

TASK 7 - Decide on your sample size

Now, think about your own project or programme and determine the sample size you need in order for it to be representative.

FEEDBACK

You should now be ready to determine your sampling frame and select your sample from which you will collect your data. Let's find out a bit more about sampling. A sample is a subset of any category of stakeholders who represent the entire group of stakeholders or population. What makes a good sample is *representativeness*. There are three concepts that should determine how large a sample is needed for your evaluation study. The first is representativeness: the larger the sample, the more likely it is that the sample represents the population. Small samples can, by chance, be unrepresentative. The second is comparisons: if making comparisons about populations, the sample needed from each will be larger than needed to estimate just one population. The third important concept is differences: the larger the differences between populations, the smaller the sample needed to make conclusions about the differences.

6.2 Data instruments and data collection

Now that you have determined the evaluation design and sample, you need to develop the instruments you need for data collection. This involves making decisions about qualitative and quantitative methods of data collection.

TASK 8 - Quantitative and qualitative methods for collecting data

Write down all the quantitative methods you know for collecting data. Write down all the qualitative methods you know for collecting data.

FEEDBACK

How did you do? Your answers should include all of the following

Quantitative Methods Administering oral or written interviews Reviewing project documents and reports Population-based surveys Reviewing medical and financial records Completing forms and tally sheets Direct measurement (chemical analysis) Observing	
Lot quality assessment	

Qualitative Methods Focus group discussion Observing Interviewing Ethnographic survey Time lines Social mapping Case studies Content analysis

TASK 9 - Evaluating different data collection tools

On a sheet of paper draw the following table and complete it.

Data Collection Tool	Strengths	Limitations
Questionnaire		
Interview Schedule		
Observation Checklist		
Focus Group Discussion		
Guidelines		

FEEDBACK

We hope you found this exercise useful. Knowing the strengths and limitations of each type of data collection instrument should enable you to develop appropriate ones.

READING:

Feuerstein, Partners in Evaluation, Chapter 4 - Designing and Conducting Health Systems Research Projects, Vol 1 Module 11; Vol 2 Module 23 & 24. TALC, London: 64-110.

7 REPORT WRITING AND DISSEMINATION

Once you have finished collecting and analysing the data, you need to write a report and prepare to disseminate it amongst your stakeholders and other interested individuals.

TASK 10 - Outline the contents of an evaluation report

Write an outline of what goes into the evaluation report.

FEEDBACK

How did you do? Your outline should have all of the following:

Outline of an Evaluation Report

Title page

The title of the evaluation The title of the programme Name of the author and/or institution from which the author comes Sponsors/donors of the programme/evaluation Date

Acknowledgements

Executive summary

Background of the evaluation Objectives of the evaluation Problem statement Methods of investigation (briefly describe the methods) Main findings Conclusions and recommendations (major part of the summary)

Table of contents

List of tables List of figures List of abbreviations List of definitions

Main body of the report

Introductory chapter

Background to the evaluation Programme description Literature review (Programme documents) Evaluation Objectives Evaluation questions and sub-questions

Methodology chapter

Evaluation design Evaluation team Data collection methods used Data collection instruments used Methods of data analysis

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Chapter on findings

Data presentation and description Chapter on Conclusions and Recommendations Based on findings to improve programmes

Bibliography

Appendices

Map of the evaluation site or area Instruments List of people contacted List of organisations or institutions visited List of team members Timetable of evaluation Other detailed findings or results Letters related to the programme or evaluation

Once you have written your report, you need to disseminate it and share it with stakeholders and other interested partners.

TASK 11 - Organising a dissemination meeting

Write a paragraph or two on how to organise a dissemination meeting for sharing the results of your evaluation.

FEEDBACK

The following steps are useful in organising dissemination workshops:

- Define the objectives.
- Identify dates and venue for the meeting.
- Identify the participants: decide who should know about the findings and recommendations?
- Draft the agenda.
- Prepare and copy the materials.
- Invite participants and arrange all logistics.

Other issues that need consideration when organising a dissemination workshop include:

- Invite the media.
- Draft a press release.
- Draft speeches for key policy makers.
- Discussion and active participation.
- Good facilitation.
- Clear description of research results and recommendations.
- Provide answers to questions.

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- Recommendations should be oriented to concrete action.
- Human resources, materials, finances and equipment are needed.

You should remember that the results of your study must be credible, understood, delivered in a timely fashion, and, perhaps most importantly, be consistent with implementation realities. Most importantly, results must be available at the time when decisions are to be made.

The usability of results and recommendations also depends on the extent to which they can be put into practice. Efforts to tailor the results and recommendations to the range of policy choices actually open to the decision-makers increases the likelihood that stakeholders will utilise them. If the evaluation suggests concrete and realistic steps to address programme-specific problems, the findings of the study are more likely to be implemented.

Finally, there will be a need to develop a plan of action for implementing the recommendations, re-think the programme, plan a new evaluation and to continue and/or revise monitoring indicators based on the recommendations of the evaluation and monitoring findings.

8 SESSION SUMMARY

Congratulations! You have come to the end of this session on monitoring and evaluation, and the end of the module. Although we have only introduced the concepts of programme monitoring and evaluation, we hope you now have some skills and further readings to enable you to apply these processes in your own programme.

Now that you have also come to the end of this module, make sure that you have achieved all of the objectives. Please review any material that you are not clear about. You are now ready to complete your final assignment.

While the material and experience are still fresh in your mind, we suggest that you complete the evaluation form, and send it in with your assignment.

MODULE EVALUATION FORM FOR PUBLIC HEALTH NUTRITION

Please would you be so kind as to fill in the form below giving us your comments on the module.

1. General

In general, I found this unit ...

2. What aspects of the module challenged you to think more deeply about nutrition planning and policy?

3. Were there any sessions or readings which you found difficult?

4. Are there any sections of the module which could be better explained? Be as specific as possible.

5. Could the structure of the sessions or the reader be changed in any way to make them more user friendly?

6. Do you think the module will have relevance in your workplace? Please explain how.

7. Are there any improvements you could suggest to clarify the assignment?

8. Did it have any relevance to your working context?

9. Other comments