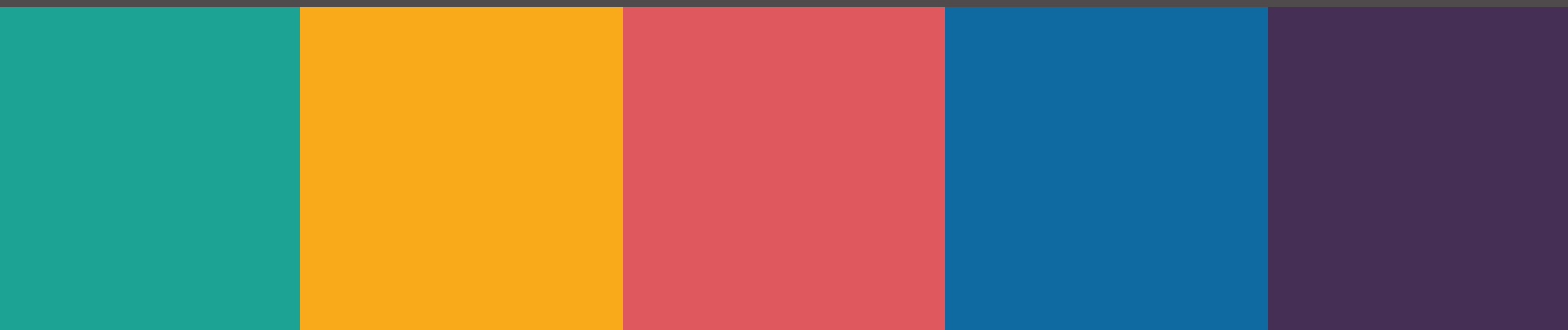


EAST, CENTRAL AND SOUTHERN  
AFRICA HEALTH COMMUNITY  
NUTRITION



TRAINING AND  
SKILLS MANUAL



## FOREWORD

Nutrition plays a key role in the health outcomes and socioeconomic development of any country. Maternal and child undernutrition, as well as overweight and obesity, are key underlying causes of increased morbidity and mortality across populations, especially in low- and middle-income countries (LMIC) including Kenya, Uganda and Tanzania. Nutrition indicators in these countries show that the need for nutrition interventions is critical (see table 1 below). However, gaps in training of frontline workers (FW) – defined as health facility workers and community workers - to assist in these interventions is also evident in many regions such as East Africa.

**Table 1: Nutrition Indicators in Kenya, Tanzania & Uganda**

Country	Prevalence of Anemia WRA	Under-5 wasting	Under-5 stunting	Exclusive breastfeeding rates
Kenya	25%	4%	26%	61.4%
Uganda	26.7%	4.3%	34.2%	63.2%
Tanzania	39.6%	3.8%	34.7%	41.1%

Source: Global Nutrition Report 2016

As identified in the 2011 FAO Report '*Training Needs Analysis: Course in Nutrition Education, Including e-Learning*', inadequate training resources and a lack of knowledge-translation are the primary factors responsible for the gaps in nutrition education. An assessment conducted in seven African countries (Botswana, Egypt, Ethiopia, Ghana, Malawi, Nigeria and Tanzania) indicated both a low awareness and a lack of appreciation around the importance of nutrition on health outcomes. This has led to inadequate nutritional care and widespread undernutrition, micronutrient deficiencies and disease. Education related challenges included issues associated with training continuity and the need for blended learning (utilizing visual educational tools and participatory approaches to promote change in practice).

Based on the critical role of Frontline Workers (FW) in identifying and addressing nutrition-related health issues, and in response to the gaps in available nutrition related training for FWs, ECSA is lead the development of two comprehensive nutrition training packages (for community and facility workers) for in-service training of FW in three East African countries –Kenya, Uganda and Tanzania.

This manual has been developed for trainers who will facilitate the in-service sessions to help orient and prepare them for deliver the training successfully.

## PREFACE

The following manual has been developed in order to provide trainers with the information needed to facilitate in-service training sessions for frontline workers who work in health facilities or the community. This manual will first provide an introduction to the nutrition training and how it works to address nutrition knowledge and practice gaps in Kenya, Uganda and Tanzania. This is followed by a review of specific skills related to facilitating competency based training, in class and practicum learning. Reviewing the contents of this document will ensure trainers are prepared to lead the training and ensure the participants experience the benefits of competency-based, problem-based and experiential learning.

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This manual developed through the use of the ‘Training Skills for Health Care Providers’ reference manual developed by Jhpiego Corporations, 2010. Additional references included in the development of this document are provided at the end of the manual.

## ABBREVIATIONS

CBT	Competency-based training
CW	Community worker
BMI	Body mass index
FW	Frontline worker
HF	Health facility
MAM	Moderate acute malnutrition
MUAC	Middle-upper-arm circumference
RDA	Recommended dietary allowances

# CHAPTER 1: INTRODUCTION TO IN-SERVICE NUTRITION TRAINING

## INTRODUCTION

In this first chapter, the curriculum plan and core concepts for the in-service packages will be explored. The key concepts of competency-based training will situate the different activities that will take place as part of the training. An introduction to the components of the package will help you see how they work together for use during implementation of the training. An introduction to the two training packages will be introduced which target different FW and any differences between the packages will be explored.

## CHAPTER OBJECTIVES

1. Describe the concepts that are core to the curriculum and the implementation of the training package
2. Explore concepts of competency-based training necessary for implementation of the training
3. Understand the structure of the training and what resources are needed to run the training
4. Identify the components of the package and how best they can be used to facilitate the training session

## CHAPTER CONTENT

1. Section 1.1: Curriculum Concepts
2. Section 1.2: Competency-based training
3. Section 1.3: Training Structure
4. Section 1.4: Packages components

## SECTION 1.1: CURRICULUM CONCEPTS

The development of the in-service training package is centered on a curriculum nucleus. The curriculum nucleus outlines the framework for a training curriculum and communicates the essence of the content (Iwasiw, Goldenberg & Andrusyszyn, 2009). The nucleus determines the development, growth and functioning of the curriculum and is composed of four parts:

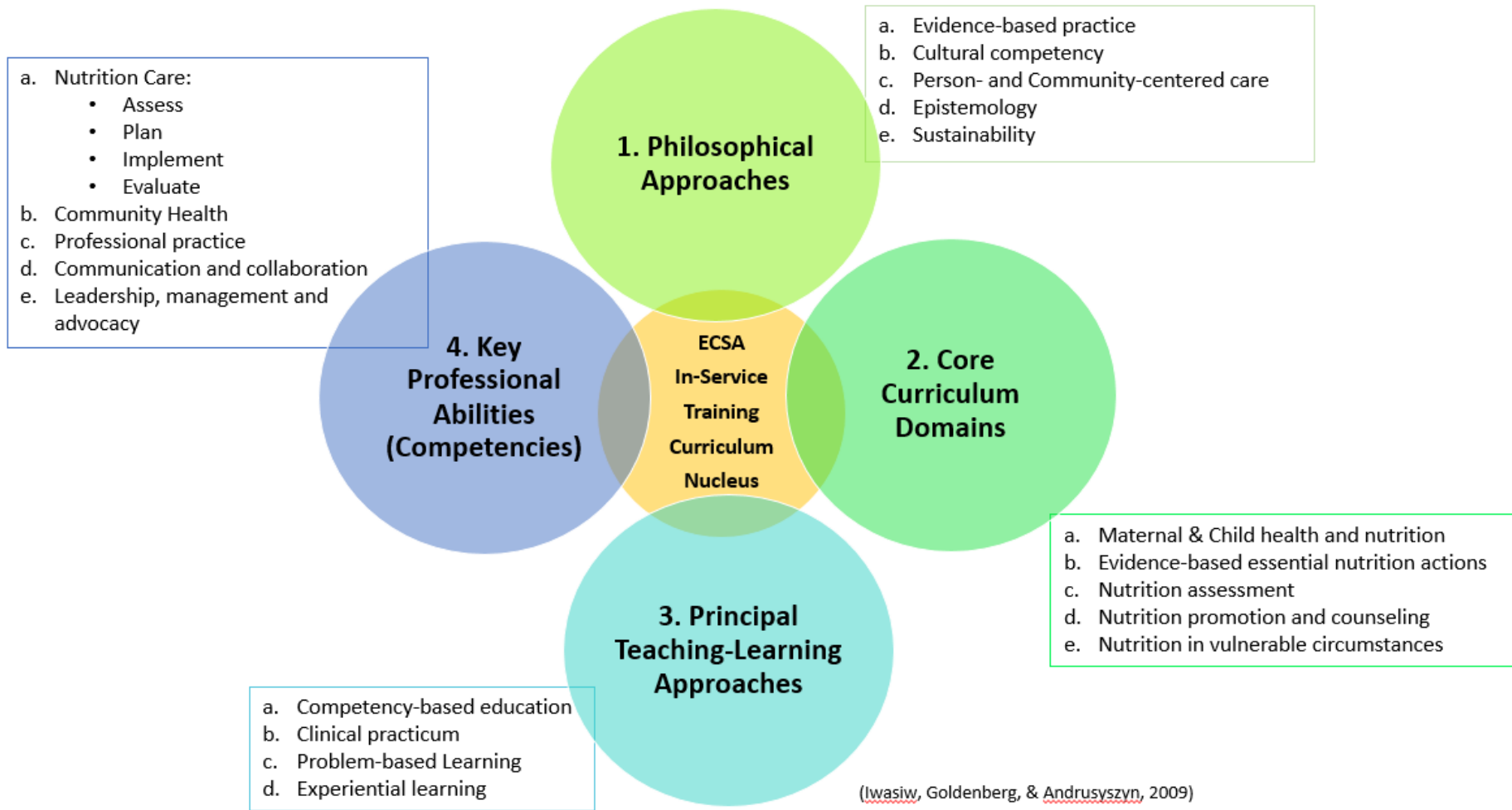
1. Philosophical approaches: Outlines the approach and methods utilized for the creation of the curriculum concepts, professional abilities and the teaching-learning approaches.
2. Core curriculum domains: Shapes participants' views about individuals and how practitioners think and behave. These concepts are essential for trainees to know and use in the context they will practice.
3. Principal Teaching-Learning approaches: Predominant processes used to enable participants' learning throughout the training and will reflect the philosophical approaches. These processes will shape how the participant's acquire, develop and create new knowledge and skills.
4. Key professional abilities: Abilities that are essential for frontline workers' and shapes their thinking as practitioners. By the end of the training the frontline workers will be able to demonstrate these abilities, which are needed to provide nutrition care.

Understanding the curriculum nucleus and the core concepts used to develop the curriculum can help trainers know what concepts are key for the Participants. It can also provide insight into the teaching approaches that you will be working through to provide the training.

On the following page you will find the curriculum nucleus for the in-service training, and a description of the concepts within the nucleus. While working through the following section:

- Review the curriculum nucleus schematic, and consider which concepts you are unfamiliar with.
- Review the concepts you are unfamiliar with in more detail through the information provided in section 1.2.

Once you are more familiar with all concepts outlined in the nucleus, you will be ready to review the remaining information in the manual and you will be able to connect the training strategies you are learning to the curriculum development. References for the concepts are provided at the end of the manual



## 1. PHILOSOPHICAL APPROACHES

a. **Evidence-based practice**

The training package was developed with the best available evidence on nutrition from systematic research about interventions, assessments and outcomes.

b. **Cultural competency**

The training package respects the values, attitudes, and beliefs that differ across cultures, and guide trainees to consider and respond appropriately to these differences in planning, implementing, and evaluating nutrition programs and interventions.

c. **Person- and Community-centered care**

The concept entails frontline workers using complementary skills, knowledge and competencies to work together to provide care to an individual and/or community based on trust, respect and an understanding of each other's skills and knowledge. This includes:

- A holistic approach to the delivery of care that reflects the individuals environment
- Respect for individuals and their decisions
- Recognition of the needs of people seeking care

d. **Epistemology**

The training package recognizes that significant learning occurs from lived experiences. The training will encourage trainees to share their practical experiences for the benefit of themselves and their peers.

e. **Sustainability**

In order to effectively strengthen nutrition capacity, the training program will be sustainable. The program will fill existing gaps and ensure that training materials and aids are relevant to local settings and resources. Furthermore, the training program will be scalable and adaptable for other countries to utilize.

## 2. CORE CURRICULUM DOMAINS

a. **Maternal & child health and nutrition:** This component will focus on the principles of maternal and child nutrition with a focus on nutritional requirements, nutritional deficiencies and recommended practices in these groups, in context to the roles of frontline workers.

b. **Evidence-based essential nutrition actions:** The actions are World Health Organization identified, evidence-based interventions with a 'nutrition through the life cycle' approach. They provide 'action oriented nutrition knowledge' with a focus on *what* the action is, *who* will carry it out, *how* it will be carried out and *what* the desired effect is.

c. **Nutrition assessment:** Nutrition assessment will form an essential component of the package. Assessment includes evaluation of nutritional status using contextually-relevant anthropometric and nutrition assessment tools. Frontline workers will be shown how nutrition assessment is used to monitor growth and identify stunting, acute malnutrition and micronutrient deficiencies.



- d. **Nutrition promotion and counseling:** This concept will focus on effective messages for nutrition promotion at the health facility and community levels. Counseling and communication techniques to encourage behavior change will be included to help frontline workers successfully guide mothers and families towards overcoming barriers and adopting the best nutrition practices.
- e. **Nutrition in vulnerable circumstances:** Training will include contextually relevant nutrition principles, priorities and strategies (especially for mothers and infants) during difficult and vulnerable circumstances such as:
  - Emergencies including natural or human-induced disasters and conflict situations
  - Diseases (such as HIV)
  - Low-birth-weight or preterm infants
  - Malnourished infants and children

### 3. PRINCIPLE TEACHING-LEARNING APPROACHES

- a. **Competency-based education**  
Competency assessment will be based on the knowledge, skills and attitudes of frontline workers and not just time spent in training. Competence is achieved when explicit observable and measurable performance metrics are completed by the trainee.
- b. **Clinical Practicum**  
Trainees will apply skills and use knowledge gained from the classroom in a practical environment supervised by an instructor.
- c. **Problem-based Learning**  
In this learner-centered approach trainees will work through real life cases in order to apply nutrition concepts and knowledge.
- d. **Experiential learning**  
Trainees will discuss previous experiences and clinical examples in order to apply new learning. They will also have the opportunity to have guided discussions within the practicum to better understand the application of knowledge.

### 4. KEY PROFESSIONAL ABILITIES (COMPETENCIES)

- a. **Nutrition Care:** Provide service to meet the nutrition care needs of person/community.
  - 1. **Assess nutrition-related risks and needs.**
    - 1.1 Use appropriate nutrition risk screening strategies.
    - 1.2 Identify relevant assessment data to collect.
    - 1.3 Obtain perspective of individual, family or relevant others.
    - 1.4 Obtain and interpret individual history.
    - 1.5 Obtain and interpret food and nutrient intake data.
    - 1.6 Identify individual learning needs related to food and nutrition.
    - 1.7 Obtain and interpret anthropometric data.

- 1.8 Obtain and interpret nutrition-focused physical observation data.
  - 1.9 Integrate assessment findings to determine individual nutritional requirements.
  - 2. Develop contextually relevant nutrition care plans.**
    - 2.1 Prioritize nutrition care goals based upon risk and available resources.
    - 2.2 Select appropriate nutrition interventions.
    - 2.3 Determine supplementation needs. (HF)
    - 2.4 Develop nutrition support / education plan.
    - 2.5 Select strategies to monitor and assess nutrition care outcomes.
  - 3. Manage implementation of nutrition care.**
    - 3.1 Implement nutrition interventions.
    - 3.2 Coordinate implementation of care with the individual, care team and relevant others.
    - 3.3 Provide nutrition education and counselling.
  - 4. Evaluate and modify nutrition care as appropriate.**
    - 4.1 Evaluate progress in achieving outcomes.
    - 4.2 Identify factors impacting the achievement of outcomes.
    - 4.3 Identify necessary changes to nutrition care.
    - 4.4 Implement changes to nutrition care.
- b. Community Health:** Promote nutrition health of groups and communities.
- 1. Assess food and nutrition related issues of groups and communities.**
    - 1.1 Identify and obtain information needed to assess food and nutrition-related issues of a group or community. Such as nutrition and health status data.
    - 1.2 Use the data to monitor health and nutrition of groups and communities.
  - 2. Develop group and community health plan.**
    - 2.1 Identify goals and objectives for groups and communities health related to food and nutrition.
    - 2.2 Identify appropriate strategies to meet goals and objectives for community health.
    - 2.3 Develop action plan for community health.
    - 2.4 Identify strategies and timelines to monitor and evaluate effectiveness of action plan.
  - 3. Implement community health plan.**
    - 3.1 Contribute to the coordination and delivery of community health activities related to food and nutrition.
  - 4. Evaluate and modify community health plan as appropriate.**
    - 4.1 Contribute to evaluating the effectiveness of community health activities for a group or community.
    - 4.2 Propose modifications to community health activities to increase effectiveness.
- c. Professional practice:** Demonstrates professionalism in delivery of safe, competent and ethical care.
- 1. Comply with practice requirements relevant to cadre of practice.**
    - 1.1 Identify and comply with standards of practice and codes of ethics as outlined in specific regions.
    - 1.2 Maintain individual confidentiality and privacy.

- 1.3 Ensure informed consent.
  - 2. Practice according to organizational requirements.**
    - 2.1 Provide services in compliance with designated role within practice setting.
    - 2.2 Demonstrate knowledge of policies and directives specific to practice setting.
    - 2.3 Comply with applicable policies and directives.
  - 3. Practice within limits of individual level of professional knowledge and skills.**
    - 3.1 Reflect upon and articulate individual level of professional knowledge and skills.
    - 3.2 Recognize situations which are beyond personal capacity.
    - 3.3 Address situations beyond personal capacity by consultation or referral.
  - 4. Address professional development needs.**
    - 4.1 Self-assess to identify learning needs.
    - 4.2 Integrate learning into practice.
  - 5. Use a systematic approach to decision making.**
    - 5.1 Make decisions in consideration of ethics, evidence, contextual factors, gender equality and individual perspectives.
    - 5.2 Take responsibility for decisions and actions.
  - 6. Maintain a person- /community-centered focus.**
    - 6.1 Respect individual /community rights, dignity and uniqueness.
    - 6.2 Determine individual perspectives and needs.
    - 6.3 Integrate individual perspective and needs into practice activities.
    - 6.4 Identify services and resources relevant to individual needs.
  - 7. Ensure appropriate and secure documentation.**
    - 7.1 Document relevant information accurately and completely, in a timely manner.
    - 7.2 Maintain security and confidentiality of records.
- d. Communication and Collaboration:** Communicate effectively and practice collaboratively.
- 1. Select appropriate communication approaches.**
    - 1.1 Use appropriate communication techniques.
    - 1.2 Use appropriate terminology.
  - 2. Use effective written and oral communication skills.**
    - 2.1 Provide accurate and relevant information in written material.
    - 2.2 Speak clearly and concisely, in a manner responsive to the needs of the listeners.
    - 2.3 Use appropriate tone of voice and body language.
    - 2.4 Recognize and respond appropriately to non-verbal communication.
  - 3. Use effective interpersonal skills.**
    - 3.1 Use active listening.
    - 3.2 Communicate in respectful manner.
    - 3.3 Demonstrate empathy.
    - 3.4 Establish rapport.
    - 3.5 Apply counselling principles.
    - 3.6 Seek, respond to and provide feedback.
  - 4. Contribute to the learning of person and community.**
    - 4.1 Assess the prior knowledge and learning needs of person and community.
    - 4.2 Select and implement appropriate educational strategies.

- 4.3 Select appropriate learning resources.
- 4.4 Deliver educational sessions.
- 5. Contribute productively to teamwork and collaborative processes.**
  - 5.1 Draw upon the expertise of others.
  - 5.2 Contribute to shared decision making.
  - 5.3 Facilitate interactions and discussions among team members.
- e. **Leadership, management and advocacy:** Applies the principles of decision making, problem solving and conflict resolution to facilitate a care environment that is supportive to person and community health related to food and nutrition.
  - 1. Provide leadership in training.**
    - 1.1 Provide orientation and direction to staff or volunteers.
    - 1.2 Provide training or education to staff or volunteers.
    - 1.3 Contribute to staff or volunteer development and performance management activities.
  - 2. Manage care delivery.**
    - 2.1 Delegate responsibilities in planning the activities related to a selected work environment.
    - 2.2 Promote collaborative practice through the application of the principles of decision making, problem solving and conflict management among the care team to facilitate the effective operation of the work environment.
    - 2.3 Manage resources to provide safe, efficient and ethical care.
    - 2.4 Utilize the principles of change to respond to the care environment.
  - 3. Serve as an advocate.**
    - 3.1 Engage with appropriate stakeholders, exercising voice and mobilizing evidence to influence policy and practice related to evidence-based essential nutrition actions.

# SECTION 1.2: COMPETENCY-BASED TRAINING

Competency-based training contributes to the knowledge, skills and attitudes of frontline workers. The goals of competency-based training are to ensure participants can provide safe and high-quality nutrition care after completing the training. It ensures participants are competent to perform certain tasks by the end of training by providing guided opportunities to demonstrate knowledge, skills and attitudes. Competence is demonstrated when explicit observable and measurable performance metrics are attained by the participant.

## 1. COMPETENCY

Competence is the ability to perform a specific task, procedure or activity safely and effectively (Jhpiego, 2010). All competencies require a combination of knowledge, skills and attitude in order to perform the task proficiently.

- **Knowledge:** participants have the information needed to analyze the situation and to make decisions in order to solve a problem.
- **Skills:** participants have the opportunity to practice and receive feedback regarding completion of the skill. This includes demonstrating psychomotor, communication and clinical decision-making skills.
- **Attitude:** participants have the opportunity to observe modeled behaviours and reflect on their own ways of doing. They have the opportunity to discover the attitudes required to demonstrate professionalism when providing high-quality practice.

## 2. COMPETENCY-BASED TRAINING

Competency-based training (CBT) is guided by 'learning by doing' rather than simply acquiring new information. Practical application of knowledge, skills and attitudes is emphasized as the participants focus on competency development. The trainer's role within CBT is to facilitate learning rather than to act solely as a lecturer or instructor.

Learning activities are incorporated throughout the training to develop the knowledge skills and judgment in the core curriculum domains and achieve competence. Developing new competencies is an ongoing process facilitated through demonstration by the trainer and plenty of opportunities for the participant to practice with coaching. Assessment of competency takes place continuously throughout the training and at critical points within the training using a specific tool. Section 2.2 will introduce the assessment process and tool that will be used throughout the training.

## 3. KEY PROFESSIONAL ABILITIES (COMPETENCIES)

As described in the nucleus, five competencies are noted to be central to nutrition care. These are competencies that are essential for frontline workers to develop and will shape their thinking as providers of care. These include:

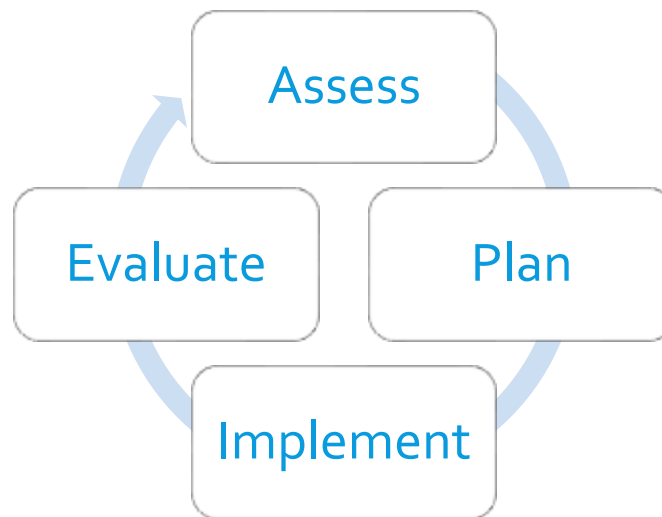
- a. Nutrition care:
  - Assess
  - Plan
  - Implement
  - Evaluate
- b. Community health
- c. Professional practice
- d. Communication and collaboration
- e. Leadership, management and advocacy

A focus on the development of these competencies is found throughout the training, although specific actions related to the competency may defer between the cadres of frontline worker.

#### 4. CLINICAL DECISION-MAKING

Clinical decision-making is a process used to make decisions about a client's condition and to act upon the decision by following the 'Assess, Plan, Implement and Evaluate' cycle. Because clinical decision-making is a cognitive skill, it can be more challenging to demonstrate than other physical skills. However, the principles of teaching decision-making skills are still the same. The role of the trainer is to breakdown the process of decision-making into manageable steps and demonstrate it in practice.

The following graphic depicts the process of clinical decision-making. These stages should be emphasized, demonstrated, and facilitated by the trainer throughout the training to ensure participants understand and develop what is involved when making decisions for a client's care.



1. **Assess:** Gather information related to the client's health-related complaint or issue then use this information to consider what is needed for this client. The participants will need to use their prior and new knowledge to consider the unique situation of the client.

2. **Plan:** Use the information gathered to describe a plan for the client. Challenge the participants' thinking and clarify their reasoning. Ask 'why' and 'how' to encourage the participant to think critically regarding their decision.
3. **Implement:** Follow through with the described plan anticipating findings or changes in the status of the client. Challenge the participants to consider a range of outcomes.
4. **Evaluate:** Gather information throughout the implementation in order to assess if the plan was effective. Guide the participants to decide whether the treatment was effective in addressing the symptoms or needs of the client. Consider possible alternatives or modifications if the plan does not have the desired effects.

Clinical decision-making must be introduced early and reinforced throughout training. Knowledge and experience are the foundation to successful clinical decision-making and participants should be given plenty of opportunity to reflect on what they know and how this affects clinical decision-making.

The following techniques are used in order to support participants through the process of clinical decision-making:

- Explain the reasoning and judgment behind decisions as a trainer
- Trainers should ask for the reasoning and judgment behind participant's decisions. Ask the questions 'who, what, why, where, how' to facilitate their further analysis of the clinical decisions made

Create a **safe and supportive learning environment** where participants are given an active role in the outcomes of the learning activities

## PROFESSIONAL PRACTICE

The expectations around clinical decision-making will vary between different cadres of frontline workers however the concept of decision-making is still the same. To maintain professional practice it is crucial to make decisions and complete tasks which are within the scope of training. It is critical that trainers help guide the participants to develop within the standards of practice relevant to their cadre of worker and demonstrate professional practice. This requires reflection of the frontline worker to recognize situations which are beyond their individual level of professional knowledge and personal capacity (Partnership for Dietetic Education and Practice, 2013).

An example of clinical decision making that would be specific cadre to different cadres of frontline workers:

- A health facility worker may be expected to act upon a MUAC which identifies a child as suffering from MAM (moderate acute malnutrition) and to counsel the family to provide supplements. This requires the health facility worker to make a decision based on the measurement taken to classify the child as having MAM, and to follow a treatment protocol as outlined by their facility.
- A community worker, seeing clients within their own community, may be required to take the MUAC measurement and then decide to refer if needed. Although this is a different type of

clinical decision, they are also required to take a measurement, and interpret the measurement as a referral or not.

It is important that the frontline workers know what types of decisions are within their standards of practice and work within them.



## SECTION 1.3: TRAINING STRUCTURE

The following section will introduce the structure of the training, and the resources, materials and logistics required to run the training. Some differences exist between the two packages (health facility workers, community workers), which will be specified.

### 1. PACKAGE CONTENT

The training will include five units, which are structured to provide knowledge within the core curriculum domains. The content of these units has been adapted to meet the needs of the health facility workers and community workers.

	Major concepts
Unit 1 Maternal, Infant and Child Nutrition	Introduction to nutrition including the importance of nutrition for individuals across the lifespan.
Unit 2 Nutritional Assessment	Dietary assessment and identification of signs of nutritional disorders including using anthropometry to identify nutritional disorders
Unit 3 Management of Nutritional Disorders	Management of moderate acute malnutrition and severe acute malnutrition through identification or screening and referral. Signs of micronutrient deficiencies, prevention and referral
Unit 4 Leadership and Counselling (HF) or Communication and Counselling (CW)	Explore leadership concepts and how to be an effective leader within the workplace. Skills required for counselling including psychosocial support and group counselling
Unit 5 Nutrition in Vulnerable Circumstances	Specific nutrition issues related to communicable and non-communicable diseases. Nutrition concerns in emergencies, including conflict and disasters.

**Frontline workers** are classified within two categories as outlined below for the purposes of this training. These target workforces were defined in the Regional Planning Workshops held February 2016.

Health Facility Workers	Community Workers
Nutritionists	Agricultural workers
Nurses	Social workers
Midwives	Community-development workers
Allied Health Professionals	Community-resource workers
Clinical Officers	Community-health workers

Two different packages have been developed due to the differences between these two groups of frontline workers related to their scope of practice and responsibilities in providing nutrition care. Throughout this document, references will be made to the two different packages, where differences

exist. Before exploring the content of this manual, identify which is your target audience, and then pay particular attention to the content for that package.

The following header will be used when differences are noted:

HEALTH FACILITY

COMMUNITY

## 2. SCHEDULE

The training is 5 days in length, with 4 days spent in class and 1 day in a practicum setting (with debrief). Class time will incorporate learning activities, skill practice and knowledge checks in order for the participants to optimize engagement with the material. Activities within each unit should be reviewed prior to running the training for ease of facilitation. The following table outlines a suggested schedule and arrangement of when each module should occur during the week and where activities take place.

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning (3hrs)	Introduction and assessment  <u>Unit 1</u> Sessions 1-4 Activity 1A	<u>Unit 2</u> Session 2-3 Activity 2B (skills station)	<u>Unit 3</u> Session 2-3 Activity 3F <u>Unit 4</u> Session 1 Activity 4A-B	Practicum (4-5 hrs)	<u>Unit 5</u> Session 1-3 Activity 5A
Lunch					
Afternoon (3hrs)	<u>Unit 1</u> Session 5-6 Activity 1B <u>Unit 2</u> Session 1 Activity 2A	<u>Unit 3</u> Sessions 1 Activities 3 A-E	<u>Unit 4</u> Session 2 Activity 4C  <u>Practicum introduction</u>	<u>Debriefing post practicum</u>	<u>Unit 5</u> Session 4-6 Activity 5B  Distribute satisfaction survey
Post			Review Practicum requirements		

## 3. CLASSROOM

Training should take place in a classroom or room where participants have an opportunity to move around and interact with each other. For the health facility training, access to a projector and computer

is needed. The community training can be run without these technologies as the teaching aid will act as the visuals needed.

#### 4. MATERIALS

The following are a list of the materials needed for each package.

Health Facility	Community
Paper and Pens for all participants	Paper and Pens for all participants
White board/chalk board/chart paper	White board/chalk board/chart paper
Standing scale	Salter hanging scale
Salter hanging scale	MUAC tapes of various sizes
MUAC tapes of various sizes	Infant simulation model
3 Infant simulation model	
Length board	
Height board	
Computer and projector	

#### 5. PRACTICUM

The practicum should take place within a clinical environment.

##### HEALTH FACILITY

Health facility participants should explore an outpatient department which primarily treats children. Access to an inpatient unit which treats children with malnutrition should also be considered if available. Review the practicum section of your facilitator manual to understand the activities that will take place while in practicum

##### COMMUNITY

Community workers practicum could include a community clinic, outpost or within a specific community. Participants should be exposed to an environment where children can be assessed and they can interact with families and communities who are at risk of malnutrition. Review the practicum section of your facilitator manual to understand the activities that will take place while in practicum.

## 6. PRE-TRAINING PREPARATION

Prior to starting the training, the following will need to be completed:

- Identify or review the participants selected for training
  - Choose appropriate package for the target group (health facility or community)
- Ensure classroom location and resources have been identified (see resources required above)
- Ensure practicum facility has been identified and that arrangements for participants time in practicum have been made
- Review this training and skills manual and complete the three mandatory accompanying check lists:
  - Section 3.1: Preparing for facilitation (page 26)
  - Section 4.1: Preparing for practicum (page 42)
  - Appendix: Training satisfaction survey (page 63)

## SECTION 1.4: PACKAGES COMPONENTS




Each of the training packages consists of three interdependent components, which work together to guide the trainer and the participants through the material. The components of the two packages are similar, although the Health Facility package will utilize PowerPoint (requiring a computer and projector in the classroom) for presenting the content and the Community Package will utilize a flip chart. The three components of each package include:









1. Facilitator Manual
2. Presentation
  - Health facility - PowerPoint
  - Community - Teaching Aid
3. Participant Manual

In addition to these three components, job aids are provided in order assist participants to continue to apply concepts from the training into their work.

After completing this section, and in preparation for facilitating the training, review each of these components to ensure you are familiar with how to best use them together.

Symbols are used throughout the package components to help connect the learning activities found within the training. The following are the symbols you will find and what they each mean.

	<p><b>Facilitator box</b> will appear where topics for discussion or other notes to the facilitator are provided. These appear only in the facilitator manual and include information you would discuss as a group as opposed to a traditional lecture style of content delivery. The comments in these boxes are not to be read out to the class verbatim</p>
	<p><b>Activity</b> refer to the activity listed at the end of each unit in the facilitator and participant's manual. The time and resources needed to complete the activity will be found. Instructions about how to complete the activity are found along with the desired key leanings.</p>
	<p><b>Knowledge check</b> is an opportunity for the participants to answer a question which reflects the learning completed in that session. Have the participants discuss or work through the question independently. Then discuss the answer as a group.</p>

	<p><b>Discussions</b> are an opportunity for participants to explore the topic prior to you delivering the content. Asking the participants about their current knowledge and experiences on the topic will provide insight into how much information they know about that topic and is helpful information when providing education to experienced frontline workers.</p>
	<p><b>Knowledge recap</b> allows participants to review a topic that is critical to learning. This is a topic that has been introduced previously but is best to revisit throughout the training due to its importance to nutrition care.</p>
	<p><b>Case study</b> allows participants an opportunity to apply concepts to a specific case, and work through the concepts together as a group to learn from each other's experiences.</p>
<p><b>Unit colours</b> connect the components of the package. The colour for each unit will direct you to the appropriate section in the presentations, and the manuals. This should ensure ease when working through the units of the package.</p>	
	<p><b>Unit 1: Maternal, Infant and Child Nutrition</b></p>
	<p><b>Unit 2: Nutritional Assessment</b></p>
	<p><b>Unit 3: Management of Nutritional Disorders</b></p>
	<p><b>Unit 4: Leadership and Counselling/Communication and Counselling</b></p>
	<p><b>Unit 5: Nutrition in Vulnerable Circumstances</b></p>

## 1. FACILITATOR MANUAL

The facilitator manual will be your guide through the package. It will provide you with a roadmap for the content of each session, the materials required and notes to help guide you in leading the training. It is divided into the five units of the training with an additional section for the practicum.

Each Unit within the manual will include:

1. Introduction to the unit concepts
2. Competencies and objectives that should be met during the unit
3. An outline of the content that will be covered

The unit will then be divided by sessions. Each session follows a similar outline.

1. Session objectives
2. Session content
3. Any preparation needed
4. Activities, time, and materials needed to complete the session

Where activities are planned in the training, the facilitator will be directed to the page where the activity can be found within the facilitator and participant manual. At the end of each unit the activities are included, describing the time and resources needed to complete the activity. An example is provided of the expected correct response to the activity when available.

## HEALTH FACILITY

Following the introduction to the session are notes that correspond to the information found in the presentation slide within PowerPoint.

## COMMUNITY

Following the introduction to the session is the content for training. Cues will be given throughout the content where the facilitator should refer to a visual within the teaching aid. The visuals in the teaching aid are also provided within the participant manual to help clarify certain key concepts.

## 2. PARTICIPANT MANUAL

The participant manual will be the guide for those participating in the training as learners. It includes content covered within the training for the participants to refer to once they return to practice, as well as the activities that will be completed during the training. The manual follows a similar format to the facilitator manual within some omissions. It is divided by units and then further by sessions within each unit. The activities they will work through to further engage in the content are found at the end of each unit.

## COMMUNITY

The community participant manual will additionally include the visuals from the teaching aid to help reinforce certain key concepts.

## 3. PRESENTATIONS (POWERPOINT OR TEACHING AID)

The presentation includes visuals to utilize throughout the training that guide the participants through the content. The presentations look different for the two packages.

## HEALTH FACILITY

The presentations are provided in PowerPoint with one presentation for each unit and an additional presentation to introduce the practicum. The symbols described above are found throughout the

PowerPoint and will guide you to refer to learning activities or other interactive component of the package.

## COMMUNITY

The teaching aid is provided using a flipchart model. The flipcharts are designed to stand independently. The teaching aid includes visuals to better describe certain concepts. These visuals are best used through the explanation of the topic and can be either held up or placed on a table where the participants can see them.

## 4. JOB AIDS

Additional pictorial or graphic resources are provided as job aids that will assist the participant to use the skills and knowledge they acquired in the training while in practice. These should be used throughout the training to ensure the participants learn the most effective way to use them. The job aids included within each package are listed below.

### HEALTH FACILITY

BMI table	Measurement protocols
Growth charts	Hand washing
Weight gain in pregnancy	IYCF Counselling cards
Macro-/micronutrient food sources and recommended dietary allowances (RDA)	Micronutrient and energy requirements for pregnant and lactating women

### COMMUNITY

Weight gain in pregnancy	Growth charts
Hand washing	IYCF Counselling cards
Measurement protocols	



# CHAPTER 2: FACILITATING TRAINING

## INTRODUCTION

Learning is a partnership between facilitator and participants that results in participants developing and enhancing competencies. The role of the trainer is to facilitate the learning of the participants. Ensuring you are familiar with relevant techniques and strategies to facilitate a training session will improve the learning outcomes of the participants. Review the resources provided in this chapter and consider how you can best create a positive learning environment and facilitate group work and activities.

## CHAPTER OBJECTIVES

1. Explore the creation of a positive learning environment through partnership development between trainer and participant
2. Understand common techniques to facilitate learning within the training sessions
3. Explore concepts noted within groups and how best to facilitate group activities
4. Describe the steps to best facilitate activities to ensure their success

## CHAPTER CONTENT

1. Section 2.1: Preparation for facilitating
2. Section 2.2: Principles of teaching
3. Section 2.3: Assessing competence
4. Section 2.4: Facilitating the learning process
5. Section 2.5: Group dynamics
6. Section 2.6: Adapting to context

# SECTION 2.1: PREPARING FOR FACILITATION

Prior to arriving in the classroom for the training, complete the following tasks to ensure you are prepared for facilitating the training session.

- Review this manual** (introductory and training skills manual) to ensure you understand the concepts that are the foundation of the training and are familiar with the required facilitation skills
- Review the appropriate materials** of the training package (depending on audience) including:
  - Facilitators Manual
  - Unit Presentations (consider reviewing the materials for each day prior to that day's session)
  - Participant Manual
- Review concepts** that you are unfamiliar with that you will be teaching within the training
  - Review the WHO document: Essential Nutrition Actions: improving maternal, newborn, infant and young child health and nutrition
- Identify and collect the materials** needed for each day's activities. Review the schedule found in section 1.3 and ensure you have the needed resources for the day's activities. Pay specific attention to activity 3-F which requires printed information packages. The packages to be printed are included where all the digital material is provided.
- Consider the participants** that are enrolled in the training and consider their role in providing nutrition care and what specific considerations you will make to ensure they benefit from the training.

# SECTION 2.2: PRINCIPLES OF TEACHING

Facilitation and coaching are central to competency-based training. Acting as a facilitator in the development of new knowledge, skills and attitudes related to nutrition care is key to ensuring the participants develop competency. The following section will introduce the principles used to effectively facilitate competency-based training.

## 1. THE LEARNING ENVIRONMENT

Creating a positive learning environment is one of the major goals of facilitation and is a cornerstone to effective in-service training. The following points should be considered when creating a learning environment where participants feel they can achieve learning:

- **Provide clear and explicit outcomes of what is to be achieved.** Ensure the participants know what they need to learn during the training and the skills they are expected to demonstrate competence in. This gives them direction and purpose throughout the training
- **Provide encouragement and constructive feedback.** Reinforce the correct way of doing things and suggesting specific ways that participants can improve.
- **Treat participants as individuals with individual learning needs.** Provide opportunities for participants to learn in different ways (audio, visual, practical, etc.) and build on their unique experiences and expertise.
- **Create an atmosphere of honesty and openness.** Model positive behaviour and encourage participants to ask questions when they are unsure or find a concept challenging.
- **Encourage discussion.** Guide discussion to facilitate learning and sharing between participants
- **Request and respond to feedback from participants.** Encourage participants to provide feedback and adapt as appropriate and where possible.
- **Use participants' names as often as possible.** This helps keep the participants focused on the presenter and facilitates a positive participant-trainer relationship.

## 2. COACHING

**Coaching** refers to a general philosophy or approach to training, as well as specific activities that are carried out during training sessions in order to facilitate participants learning. An example of this process used in facilitation is found in section 2.4. Coaching uses:

- a. **Questioning**
- b. **Providing constructive feedback**
- c. **Active listening**

---

***The Courage to Coach:*** *Coaching has been used successfully for teaching training in industry for many years. It has a proven track record and can be very rewarding for both trainers and learners. Yet, it may feel very different from the training/teaching styles you have experienced. Coaching asks you to step away from the comfortable, traditional role of the all-knowing teacher. Even when you have the answer, you may need to keep them to yourself-allowing the participants to solve problems for themselves and become more independent.*

---

#### **The effective coach...**

Focuses on the practical  
 Encourages working together (collegial relationship)  
 Works to reduce stress  
 Fosters two-way communication  
 Is a facilitator of learning

#### **The ineffective coach...**

Focuses on the theoretical  
 Maintains a distance (status is above the participants)  
 Often creates stress  
 Uses one-way communication  
 Acts as the authority or only source of knowledge

### 3. ADULT LEARNING

Effective in-service training is based on principles of adult learning. Adult learners differ from other learners because of their prior learning and experience. Differences include the degree of motivation, the amount of previous experience, the level of engagement in the learning process and how the learning is applied (Russell, 2006). They have different learning styles and these must be addressed in training to ensure the participants benefit from the training.

#### **Characteristics of adult learners:**

- Autonomous and self-directed
- Accumulated a foundation of experience and knowledge
- Goal oriented
- Relevancy oriented
- Practical
- Need to be shown respect

#### **Sources of Motivation:**

- Social relationships
- External expectations
- Social welfare
- Personal advancement
- Stimulation
- Cognitive interest

Because of these unique characteristics and sources of motivation, participants may approach the training in different ways. Engaging participants in the process of learning and maintaining a coaching and facilitating position will allow participants to attain their own unique benefits from the training.

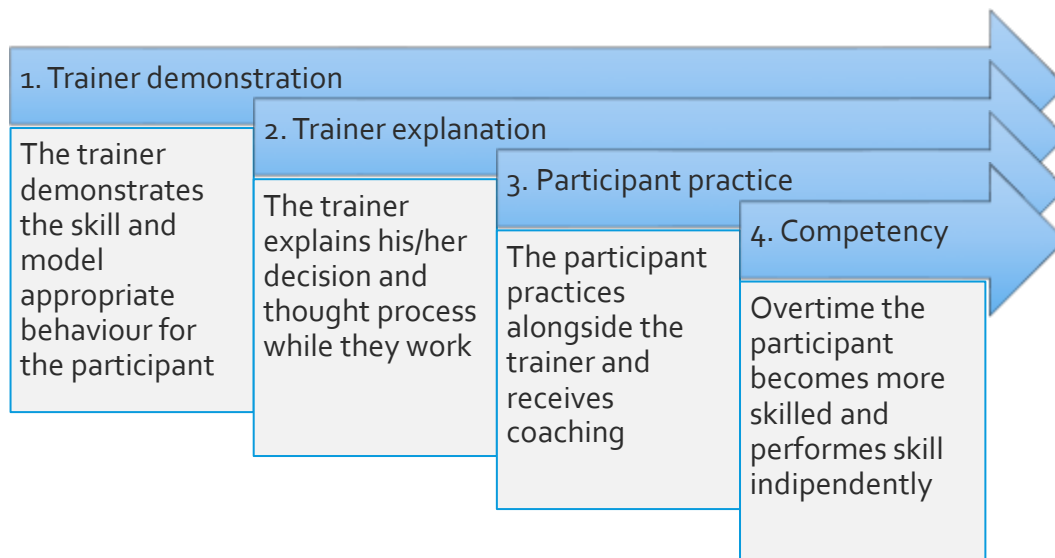
#### 4. DEMONSTRATION

Providing demonstration contributes to more effective development of competency. Allowing the participant to practice skills in a simulated session using learning aids will increase their competency when the skills are performed in practice with real individuals. Before the participant attempts a procedure on a real individual, two activities should occur:

1. The trainer should demonstrate the required skill and interaction using the appropriate instruments and aids.
2. While being supervised, the participant should practice the skill and interaction using the same instruments and aids that they would have within their work setting. This should simulate real situation as much as possible.

Only once the participant can demonstrate the skill competently, should they be performing the skill on real individuals.

Providing an explanation of your thinking throughout the demonstration, of a concept is called cognitive apprenticeship. A complex skill is demonstrated by the trainer, or someone who has 'mastered' the skill, in a manner that is easy for the participant to observe and learn. The process allows the participant to not only perform the skills, but also the way of thinking of the trainer and how they use this throughout the skill. The process is as follows:



#### **Example of demonstration steps**

The below steps outline how to demonstrate the teaching of hand washing skills:

1. Demonstrate the steps used to complete effective hand washing.

2. Explain why you have chosen certain actions: soap and water *versus* hand sanitizer, or when you would complete hand washing and why it is important
3. Have the participant demonstrate hand washing while supervised by the trainer, coach the participant to ensure hand washing is completed efficiently
4. With repeating performance of the skill of hand washing and reinforcement from the trainer the participant will become competent and able to practice hand washing within their own work environment.

## SECTION 2.3: ASSESSING COMPETENCY

This competency assessment tool will be used throughout the training both in classroom activities and during the practicum. The tool is found within both the participant and facilitator manuals, within the activities or practicum tasks that require assessing competency. Participants will also use the tool to guide each other through practice of the skills, so they will require an explanation on how to use the tool to evaluate each other.

“The five-point Bondy’s rating scale captures the essence of Bloom’s affective and psychomotor domains by applying the concept of a hierarchy of increasing competency to the development of a five-point rating scale for evaluation of clinical performance”.

The Bondy’s rating scale has been adapted and simplified for the ECSA in-service training program to objectively evaluate participants in practicum settings. Observe for the following characteristics and assess participants on a scale from 0 to 1.

### **Adapted & Simplified Version**

Scale Label	Score	Characteristics of Competency
Proficient practice	1	<ul style="list-style-type: none"> <li>• What the worker does is safe, appropriate and accurate.</li> <li>• The worker focuses on the patient.</li> <li>• The worker performs skill using minimal time.</li> <li>• The worker looks confident and does not require any hints.</li> </ul>
Incomplete / unsafe practice	0	<ul style="list-style-type: none"> <li>• What the worker does is unsafe, not completely accurate or incomplete.</li> <li>• The worker does not show good skill.</li> <li>• The worker uses a lot of time and energy to perform the skill.</li> <li>• The worker looks uncomfortable and needs a lot of hints.</li> </ul>

Participants will use the adapted Bondy’s rating scale in practice to evaluate their peers and to provide feedback to each other. They will also be evaluated for competency during the practicum.

### STANDARD WORK DESCRIPTION AND SKILL STANDARDIZATION

In order for participants to develop and demonstrate competency, standards of expected behaviour and actions are taught throughout the training. Breaking down the skill or activity into essential steps allows participants to learn these steps and the trainer to assess competence.. An example of a standard work description along with the competency assessment tool that will be used is provided. When participants are noted to be finding a specific skill challenging and perform below ‘proficient practice’ (as described

on the assessment tool), further practice and coaching should be provided until the participant is able to perform the skill.

**Example of standard work description and competency assessment tool**



Hand washing Activity 1-B	Rating		Comments	
ACTIVITIES / PROFESSIONAL BEHAVIORS	Circle number			
<i>Turn on the tap and wet hands</i>	0	1		
<i>Apply liquid soap, enough to cover entire surface of hands</i>	0	1		
<i>Rub hands palm to palm</i>	0	1		
<i>Rub dorsum of each hand with the palm of the other hand</i>	0	1		
<i>Rub palms with fingers interlaced</i>	0	1		
<i>Rub back of fingers to opposite palms with finger interlaced</i>	0	1		
<i>Rub left thumb while clasping in right palm and vice versa</i>	0	1		
<i>Rub finger tips of each hand in the opposite palm</i>	0	1		
<i>Rinse hands with water and dry them thoroughly with a single-use towel</i>	0	1		
<i>Use single-use towel to turn off the faucet</i>	0	1		
<b>TOTAL POINTS</b>	/ 10		<b>PERCENTAGE:</b>	<b>%</b>
<b>FINAL RESULT</b>	<input type="checkbox"/> < 50% = Incomplete/ unsafe practice	<input type="checkbox"/> 50-75% = Minimum level of safe practice	<input type="checkbox"/> 75%-100% = Proficient practice	



As noted in the example, the steps described in the standard work description are reflected in the assessment tool. Review the facilitator manual to become familiar with the other performance standards that will be taught within the training. These include:

#### HEALTH FACILITY

1. Hand washing
2. MUAC (middle upper arm circumference) measurement
3. Weight measurement (standing scale and salter spring scale)
4. Height measurement
5. Length measurement
6. Documentation principles

#### COMMUNITY

1. Hand washing
2. MUAC (middle upper arm circumference) measurement
3. Weight measurement (salter spring scale)
4. Documentation principles

# SECTION 2.4: FACILITATING THE LEARNING PROCESS

During the training, trainers must be comfortable with a variety of teaching strategies (e.g. presentations, case studies, skill demonstration and practice, etc.) in order to support participants to develop the knowledge, skills and attitudes required for competent practice.

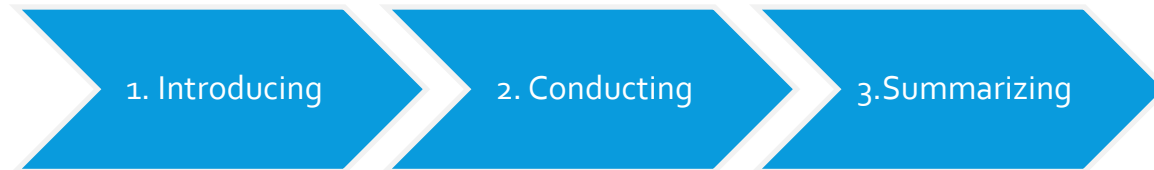
## 1. FACILITATION SKILLS

To facilitate the training, trainers will need to use a range of techniques to engage participants and keep them on track. Consider the following skills and their role in the various activities:

1. **Follow a plan.** Use the resources (such as facilitator and participant manual) provided in the package to prepare and follow the plan described for the training. Begin and finish at the scheduled time to keep learning on track.
2. **Communicate in a way that is easy to understand.** Participants may be unfamiliar with terms, jargon and acronyms of a new subject. Ensure you use language which will be familiar to the participants and allow them to ask questions to clarify new concepts.
3. **Maintain eye contact with participants.** Use this connection to 'read' their faces. This technique helps to establish rapport and also to receive non-verbal feedback on how well they are engaged and understanding the content.
4. **Project your voice.** Vary your volume, voice pitch, tone and inflection to maintain participant's attention. Make sure everyone in the room can hear you.
5. **Avoid the use of slang or repetitive words.** Phrases or gestures may become distracting if used repetitively.
6. **Display enthusiasm about the topic and its importance.** Your enthusiasm and excitement are contagious, directly affecting the motivation of the participants. Be an effective role model for the participants.
7. **Move around the room.** Moving around the room ensures that the trainer is close to each participant at some point during the training. Especially during activities, be present within the group and available for questions or clarifications on the activities or their content.
8. **Ask simple and challenging questions.** Allow the participants an opportunity to consider and respond to questions, provide prompts for challenging questions when needed to coach the participants to the answer.
9. **Provide positive feedback.** Even during activities that are less 'hands-on', such as case studies or discussions. Provide positive reinforcement for participating in activities and sharing experiences.
10. **Use your time and resources wisely.** If it is an important concept, spend the time on it. If a particular part of the content is well known by the participants, consider reviewing only briefly and shifting focus to a more unknown or challenging topic.

## 2. PROCESS OF FACILITATION

The general process of facilitation can be applied to the whole training session as well as individual activities. The same template will be applied to the presentation of content, facilitating activities and discussions, and facilitating skill development.



### Step 1. Introduce the learning activity

Introduce the activity as described in the facilitator manual. Information that will help the participants should be provided including:

1. **Objective of the activity** helps the participants know what is expected of them.
2. **Clear instructions** as to what the role of the participant is during the activity. What do they need to do during the activity or share afterwards? All activities are described within the participant manual for referral during and after the activities.
3. **Time limit** for the activity. Ensure the participants are clear on how much time they have allocated for the activity and break down the time into smaller increments if possible.

Explain the importance of the activity and its relevance to previously covered content and real-life experiences either in the past or in future work.

You may also use techniques to generate interest and enthusiasm about the topic such as: asking questions about the topic or sharing a personal experience.

### Step 2. Conducting the learning activity

Conduct the activity as described in the facilitator manual. Consider the techniques described in section 2.3 regarding coaching to guide participants through the activity.

- **Questioning.** Use a variety of questioning techniques and respond appropriately to participants' correct, incorrect or lack of responses. Be prepared to respond to participants questions
- **Providing feedback.** Clear and specific feedback is useful for developing knowledge, skills and attitude. No matter the situation, be timely, specific and constructive.
- **Active listening.** Allows you as the trainer to stimulate open exploration of ideas and feelings and establish trust and rapport with the participants. In active listening, you will accept what is being said without making any value judgements, clarify the ideas or feelings being expressed and reflect them back to the participant.

### Step 3. Summarizing the learning activity

Summarizing activities helps to ensure that the participants understand the material that was presented during the activity and its significance for their future work. Reinforcing key information will improve learning and retention of information.

**Example of process for skill demonstration: MUAC measurement**

- Step 1. Introduction**    **Introduce and provide an overview** of taking a MUAC measurement
- What is a MUAC measurement? Why is it important? When should it be used?
  - Ask if there are any questions before proceeding
- Step 2. Conducting**    **Make sure everyone** is able to see what you are doing
- Have the participants follow using the **standard work description** (found in the participants manual) and competency assessment tool
- Demonstrate in a realistic manner**, use the MUAC tape and a person or model as a patients.
- Use the **Whole-Part-Whole** approach when possible as described below:
- Demonstrate the skill from beginning to end
  - Isolate or breakdown the skill and allow participants to practice the steps
  - Demonstrate the whole skill again and allow participants to practice from beginning to end
- Throughout the demonstration **explain** what you are doing and thinking and **ask questions** of the participants to keep them involved
- Step 3. Summarizing**    **Review and discuss** the standard work description and competency assessment tool in review of the skill demonstration
- Encourage the participants to **ask questions**

## SECTION 2.5: GROUP DYNAMICS

Understanding group dynamics and knowing what to look for in order for the group to proceed to achieve the learning goal will be required during facilitation of training. Without elements of a healthy group, undesirable group behaviour can emerge and hinder learning. Knowing how to promote, and what to look for can help you intervene early to reinforce positive, healthy group behaviour.

### 1. CHARACTERISTICS OF A HEALTHY GROUP

Establishing a positive learning environment in a classroom depends on the participants coming together to form a healthy, mutually supportive group. A collective of individuals become a group when:

- They share a **common purpose**
- The members **think of themselves as a group** and they share a common experience
- Each member's contributions and questions are **valued and respected**
- An **open and trusting climate** develops
- The members pay attention to **how they work together**

To understand and manage the group dynamics, the trainer must become aware of what is happening in the room. Several steps can help you as the trainer to understand the dynamics of the group attending your training and act to adjust the group to ensure you are achieving the learning outcomes.



1. Observe how the participants interact, who is quiet, who speaks too much/less, who needs additional time and support, who needs less. Observe any tension or stress that needs to be addressed before it becomes a problem
2. Become increasingly aware of what is happening in the classroom or practicum setting. This could include paying attention to individual, small group and large group behaviours.
3. Share your observation with your co-trainers to identify any patterns of behaviour among the group members.
4. Consider options to support the group, this may involve focusing on certain individuals or the group as a whole.

## 2. PARTICIPANT ENGAGEMENT

Keeping the participants involved in the construction of the learning environment can help create accountability and mutual respect, especially in adult learning environments. Some ways to keep the participants engaged in the learning environment is having them participate in keep the group together, this could be done through assigning roles within the group such as:

- A time keeper, to ensure the class begins and ends on time and breaks are taken.
- An energizer, to lead the group through exercises of quick activities when the energy is falling.

## SECTION 2.6: ADAPTING FOR CONTEXT

The training packages have been developed to meet the needs of frontline workers within the ECSA region, although regions throughout these countries may experience variations in nutrition challenges and access to different foods, services and practice.

Considering the experience and knowledge level of the group of participants that you are working with may mean that you need to adapt the content to their learning needs. This can be done by further explaining challenging concepts and simplifying concept where the group is finding challenging to understand. Asking the participants questions about the concepts can help you understand their level of understanding.

While delivering training, it is the role of the trainer to adapt the content to the local context. A few key opportunities exist within the package, but it is possible that trainers will identify additional opportunities to address regional specific circumstances.

### 1. DISCUSSIONS

Considering local context and previous experience of participants during the discussions built throughout the training provides an opportunity to address specific local challenges and to learn from the experience of each participant. Allowing participants to bring in their own experiences will allow others to learn from their work and also to better understand the systems within the region which they may not have been aware.

### 2. ACTIVITIES

When working through the activities, have the participants consider their local context and how the concepts apply to their work. Have them consider the following throughout their learning to better understand how to integrate the concepts into their work:

- a. Identify challenges to implementing the new concepts learned in the training
- b. Consider opportunities to improve the systems which they work within to implement the new concepts
- c. Consider local resources and services which can enhance their learning

### 3. PRACTICUM

During the practicum participants should be encouraged to consider similarities and difference between the practicum locations and where they work. This can help them to consider how to best implement the new concepts into their daily work.

# CHAPTER 3: FACILITATING PRACTICUM

## INTRODUCTION

After developing new skills, knowledge and attitudes within the safety of the classroom setting, having an opportunity to practice in a real clinical setting is crucial to solidifying learning. Competency is truly achieved when the skill can be completed within the context of a practice environment. New challenges are presented when facilitating learning within the practicum and considering the trainers role to navigate these challenges is important. Review the concepts within this section to learn how the trainer can best facilitate the development of competence by the participants.

## CHAPTER OBJECTIVES

1. Describe the importance of demonstrating competence within the practicum
2. Describe the role of the trainer in supervising and facilitating learning of the participants
3. Describe the principles of working within a clinical site, including working with staff and protecting clients rights
4. Describe concepts needed to provide and receive feedback effectively
5. Demonstrate common methods to facilitate debriefing and describe how it can enhance participant learning

## CHAPTER CONTENT

1. Section 3.1: Introduction to practicum
2. Section 3.2: Supervising participants
3. Section 3.3: Working in clinical sites
4. Section 3.4: Providing feedback
5. Section 3.5: Debriefing

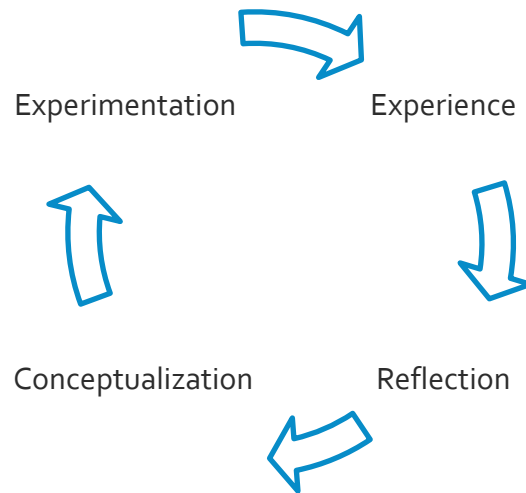


## SECTION 3.1: INTRODUCTION TO PRACTICUM

Adults learn best through experience, and the process of assessing and assimilating lessons into their own world is the basis of experiential learning. The more relevant the experience to their own work, the more meaningful the learning experience will be. Within this session we will discuss the process of experiential learning within the practicum and the trainer's role to facilitate the practicum experience.

### 1. EXPERIENTIAL-LEARNING

Kolb's theoretical framework for experiential learning is the foundation of learning in practicum. It includes a cyclical model, where participants actively engage in experiences.



Experience is followed by a period of self-reflection and facilitated discussion. The participant makes sense of the event and understands how it applies to their future work through the conceptualization phase. The participant then tries out the new approach they have acquired during the experimentation phase, then the cycle repeats as they continue to integrate new learning into their own experiences.

The tools outlined within the practicum section of the participant manual are designed to help the participant work through these stages in practicum. As the participants work through the learning activities within the practicum setting, they will be guided to reflect on the experiences they have through the activity questions. During debriefing, which will be described in section 3.5, participants will have an opportunity to discuss and explore their experiences and share their learning with others.

## 2. FACILITATING THE EXPERIENCE

It is important as the facilitator of the practicum experience that you clarify expectations for participants so you both understand your roles. In the pre-practicum introduction (see schedule in section 1.3) you will discuss these responsibilities with the participants.

Participant	Trainer
Be open to experiences	Facilitate meeting practicum objectives
Seek opportunities for learning	Support participants by providing feedback
Meet practicum objectives	Act as link between participant and facility
Complete additional activities when possible	Supervise participants

## 3. PREPARING FOR PRACTICUM

Prior to arriving at the practicum location, you will need to complete a few key tasks to ensure you are prepared for facilitating the practicum learning. Use the following checklist:

- Review the practicum guide** found within the facilitator and participant manual. Become familiar with the tasks the participants are required to complete. Understand which tasks you will need to facilitate and which are self-directed by the participant.
- Visit and/or contact the practicum location** and make sure you are familiar with:
  - The type of nutrition care provided
  - Where the services are provided
  - When is the best time for participants to complete the required tasks
- Ensure access to needed tools** at the practicum location. For example to complete a MUAC measurement, the tapes will be required, bring these instruments along with you to ensure participants have access during practicum.
- Collect the learning objectives** of the participants at the end of day 3 so that you can review them prior to the practicum (space is provided in the facilitators manual to record objectives). Facilitation of some of these learning objectives may be required. Consider reviewing the objectives with the participants if you are unclear about how they will achieve their personal objective.
- Develop a general schedule** of the day's events. Consider scheduling ward rounds (case review) and a time for completing competency assessments.

Completing these activities prior to the participants arriving at the facility will help ensure the success of the practicum. Knowing when and where assessments and counselling take place will help in guiding the participants to these experiences. Consider scheduling times for the Ward Rounds so the participants know where and when they should be present.

## SECTION 3.2: SUPERVISING PARTICIPANTS

In the clinical setting, in addition to coaching participants as they practice with actual clients, the trainer is ultimately responsible for supervising them. In the role of supervisor, the trainer must closely monitor participants' activities so that:

- Each participant receives appropriate and adequate **opportunities for practicing skills**
- Participants **do not disrupt the efficient provision of services** within the practicum environment or interfere with staff and their duties
- The care provided by each participant **does not harm clients** or place them in an unsafe situation (this will be discussed further in section 3.3)
- Participants abide by all rules and regulations of the practicum location

**A few key principles** can be followed to ensure this role as supervisor is effectively carried out:

1. **The trainer should be with the participants** when they are completing skills with clients or during any client contact involving a skill for which a participant's competency has not been determined.
  - The trainer will need to be present for the participants completing the required skills

HEALTH FACILITY	COMMUNITY
MUAC	MUAC
Documentation	Documentation
Height, Length or Weight	Weight

2. Trainers will have to supervise **more than one or two participants** at a time. As trainers cannot be with them all at all times, other methods of supervision must be used. Suggestions include:
  - **Make sure the participants know** what they can do independently and what requires supervision
  - Have participants complete the additional activities while they are waiting for their turn to complete the supervised tasks
  - If you are confident in the skills of the staff at the practicum facility, participants can be paired with them for specific learning
3. Although you may rely somewhat on the supervision by the facility staff, **the ultimate responsibility for the participants is on the trainer**, including assessment of competence. Ensure you have a co-trainer present at each location if more than one is required for the training.

## SECTION 3.3: WORKING IN CLINICAL SITES

The practicum presents a unique learning opportunity for participants, where they can synthesize the knowledge, skills and attitudes they have learned during classroom activities. New roles and responsibilities are also present for the trainer. Considering your role in protecting clients' rights and how to best work with the staff at the practicum facility is required in order to provide a safe and effective learning environment.

### 1. PROTECTING THE CLIENTS' RIGHTS

The rights of the clients to privacy and confidentiality must be considered at all times during the practicum. The following concepts will help ensure that the clients' rights are routinely protected.

- The right to **privacy** must be respected whenever a client is undergoing a physical examination or procedure.
- The **confidentiality of any client information** obtained during counselling, history taking, physical examination or procedures must be strictly observed.
- The **client should be informed** about the role of each person involved.
- The **client's permission should be obtained** before having the participant observe or assist with any procedure.
- **Safe practice and quality service** delivery are a client's right, not a privilege.
- **How coaching and feedback** are given during practicum should be considered by the trainer, limiting **excessive feedback** in the presence of the client in order to reduce harm or discomfort is good practice.

### 2. WORKING WITH FACILITY STAFF

While working at the facility during the practicum, the trainer may be working alongside other facility staff, as they interact with the participants. Providing staff with the opportunity to assist in training can be an enriching experience for the whole facility, as well as improve the skills of the staff. Their involvement can also be a great support to the trainer, who is juggling many responsibilities. There are some important considerations that go along with this arrangement.

- **Staff skills must be standardized** so that everyone is on the same page. Make sure the participants bring and use their performance standards and competency-assessment tools (provided in the participant's manual).
- Ensure you are **working with the facility staff** to not obstruct client flow and the participants do not overwhelm one area. Plan a **rotation system** to allow for a few participants to be present in a specific area for learning
- To ensure the practicum runs as smoothly as possible, the **trainer should ideally meet with the facility staff prior to the practicum day** (or at minimum, make contact by phone) in order to:

- Clarify the responsibilities of the facility staff, the trainer and the participants during the practicum.
- Coordinate the learning activities that require direct supervision: the competency assessment and ward rounds.
- Identify unique learning opportunities that might be present within the facility
- Visit the different areas where participants will be within the facility and clarify any logistical issues that may arise.

## SECTION 3.4: PROVIDING FEEDBACK

Feedback is essential for the continued development of the participants' knowledge, skills and attitude. To minimize disruption of services, the feedback can take place in just a few minutes in a location away from the client care area. The model of providing feedback will be the same, whether it is provided before or after practice sessions, or whether it is done for skills practiced in the classroom or within practicum.

1. Have the participant identify **strengths and areas where improvement** is needed
2. Provide the participant with **specific, descriptive feedback** that includes suggestions of both **what and how** to improve
3. **Mutually agree on how to proceed** and the role of the trainer and the participant in completing the skill with improved competency

### PROVIDING FEEDBACK DURING CLIENT INTERACTION

**Positive feedback** is often easy to provide in the presence of a client, many clients find it comforting to hear the participant being given positive feedback.

- When providing feedback keep it **restrained and low-key**, too much praise can leave the client feeling uneasy
- Positive feedback can be conveyed by **facial expression and tone of voice** rather than words and still be highly effective.

**Corrective feedback** is more difficult to give under any circumstance, but especially when the client is present. A number of techniques are available to make it easier.

- Often a **look or gesture** can be effective to correct an action
- **Do not go into lengthy explanations** of why you are making the suggestion, save that information for after the interaction. Simple suggestions should be made instead to guide the participant.
- **To help the participant avoid a mistake**, ask a simple straightforward question about the procedure or the next step to take.
- **Be prepared to step in and take over** if the participant is going to make a mistake that will harm the client. This should be done calmly and in a controlled manor.
- **Always allow for time for debriefing** for participants as soon as possible after a difficult interaction.

## SECTION 3.5: DEBRIEFING

Debriefing is an essential component to learning within the practicum setting. It is characterized by discussion and analysis of an experience and guides the participant to reflect on experiences, evaluate, and integrate learning. In this section we will discuss the process of debriefing, including factors that facilitate effective debriefing sessions, as well as the Think→Pair→Share model that can be used to maximise experiential learning within the practicum and post-practicum session.

### 1. DEBRIEFING PROCESS

A three-step model for debriefing provides a clear process to guide debriefing sessions. This process can take place within the practicum when required, or facilitated within the post-practicum session on day 5 of the training.

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#### STEP 1: THE REACTION PHASE

- a. Clear the air: allow participants to express emotions or feelings about their experience. Appreciate any raw feelings that are expressed by the participants which will help you gain insight to any concerns about the experience.
- b. Review the facts: a quick summary of the facts of the case or experience can help clarify any confusion.
- c. Set the stage for addressing learning objectives: clarifying any confusion will help participants prepare to develop a new understanding and integrate learning.

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#### STEP 2: THE UNDERSTANDING PHASE

- a. Explore what happened: delve deeper into what the participants were thinking and feeling during the experience, what led them to behave or approach the experience a specific way.
- b. Unpack the situation through further inquiry: using concrete, first person voice to state your understanding of the conversation, such as *"I saw..., I think..., I wonder..."* The participants are then invited to state their views and inquire further from the trainer.
- c. Apply good judgment and teach, moving participants to new understanding or skills: Present different approaches to managing the situation and provide information that are comparable to the experiences.
- d. Generalize lessons learned to new situations: consider the learning and application of insight to practice.

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#### STEP 3: SUMMARIZE

- a. Review lessons learned: summarize as a group what went well and what they did well.
- b. Discuss take-always, lessons learned that will be applied to future practice: consider that they would do differently next time and implement in future situations.

THINK → PAIR → SHARE

This model is for participants to share experiences and develop critical thinking regarding the situation they encounter as described within the facilitator manual. The follow three steps are used:

1. **Think:** Have participants consider their own experiences in the practicum before arriving to the debriefing. Or provide the participants a few moments to think of a situation that stood out to them.
2. **Pair:** Have participants discuss with the person next to them the experience or situation they encountered. They could discuss the good or bad things they noted or any new, challenging, or interesting things they encountered.
3. **Share:** Then as a group discuss the experiences. Have the pairs share stories of new learning and challenging situations.

This model will be used alongside the steps of debriefing to guide participants to work through situations with a colleague or partner in their own working environment.



# REFERENCES FOR TRAINING SKILLS

Booklet on Key ENA Messages: Essential Nutrition Actions Framework [Internet]. COREGROUP, USAID; 2011.

Available from:

[http://www.coregroup.org/storage/Nutrition/ENA/Booklet\\_of\\_Key\\_ENA\\_Messages\\_complete\\_for\\_web.pdf](http://www.coregroup.org/storage/Nutrition/ENA/Booklet_of_Key_ENA_Messages_complete_for_web.pdf)

Hawly R, Lee J. Standardised clinical evaluation using Bondy rating scale. Australian Journal of Advanced Nursing. 1991. 8(3):6-10

Assessment Fact Sheet: Performance Assessment Using Assessment Tools. EDCAN (n.d.). Retrieved from:

<http://edcan.org.au/assets/edcan/files/docs/EdCan-FactSheet-CATs.pdf>

Essential Nutrition Actions: improving maternal, newborn, infant and young child health and nutrition [Internet]. World Health Organization; 2013. Available from:

[http://apps.who.int/iris/bitstream/10665/84409/1/9789241505550\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/84409/1/9789241505550_eng.pdf)

Gardner R. Introduction to debriefing. In Seminars in perinatology 2013 Jun 30 (Vol. 37, No. 3, pp. 166-174). WB Saunders.

Gruppen L, Mangrulkar R, Kolars J. The promise of competency-based education in the health professions for improving global health. Human Resources for Health. 2012;10(1):1.

Iwasiw C, Goldenberg D, Andrusyszyn M. Curriculum Development in Nursing Education. 2nd ed. Sudbury, MA: Jones and Bartlett Publishers, LLC; 2009.

Jhpeigo. Training skills for health care providers. Reference manual. 2010

LibGuides: Introduction to Evidence-Based Practice : Overview [Internet]. Guides.mclibrary.duke.edu. 2016 [cited 31 August 2016]. Available from: <http://guides.mclibrary.duke.edu/c.php?g=158201&p=1036021>

Lisko S, O'Dell V. Integration of theory and practice: experiential learning theory and nursing education. Nursing Education Perspectives. 2010;31(2):106-108.

Masic I, Miokovic M, Muhamedagic B. Evidence Based Medicine - New Approaches and Challenges. Acta Informatica Medica. 2008;18(1):219.

NCCC: Curricula Enhancement Module Series [Internet]. NcccCurricula.info. 2016 [cited 31 August 2016]. Available from: <http://www.ncccCurricula.info/culturalcompetence.html>

Russell SS. An overview of adult-learning processes. Urologic Nursing. 2006 Oct 1;26(5):349.

Partnership for Dietetic Education and Practice. The Integrated Competencies for Dietetic Education and Practice. 2013.

Putting Patients First®: Patient-Centred Collaborative Care - A Discussion Paper [Internet]. Canadian Medical Association; 2007. Available from:

<http://fhs.mcmaster.ca/surgery/documents/CollaborativeCareBackgrounderRevised.pdf>

Savery J. Essential readings in problem-based learning: Exploring and extending the legacy of Howard S. Barrows. 2015.

# REFERENCES FOR TRAINING PACKAGE

## **Malnutrition**

Global Nutrition Report 2016.

Bapat P. *Nutrition and the Changing Global Burden of Disease - The Hunger and Undernutrition Blog*. <http://www.hunger-undernutrition.org/blog/2012/12/nutrition-and-the-changing-global-burden-of-disease.html>

Black RE, Victora CG, Walker SP, Bhutta ZA, Christian P, de Onis M. Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet* 2013; 382: 427–51

Ng M, Fleming T, Robinson M, Thomson B, Graetz N, Margono C. Global, regional, and national prevalence of overweight and obesity in children and adults during 1980–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet* 2014; 384(9945): 766–781

*Nutrition in Emergencies*. UNICEF. <http://www.unicef.org/nutrition/training/2.3/4.html>

Stein AJ. *Rethinking the Measurement of Undernutrition in a Broader Health Context - Should We Look at Possible Causes or Actual Effects?* IFPRI. 2013

*The WHO Child Growth Standards*. <http://www.who.int/childgrowth/en/>

Thompson JL, Manore MM, Vaughan LA, Gottschall-Pass K, MacLellan DL. *The science of nutrition*, Canada ed. Canada: Pearson Canada; 2014

*WHA Global Nutrition Targets 2025: Stunting Policy Brief*. World Health Organization/1000 Days. [http://www.who.int/nutrition/topics/globaltargets\\_stunting\\_policybrief.pdf](http://www.who.int/nutrition/topics/globaltargets_stunting_policybrief.pdf).

World Food Programme. *Nutrition at the World Food Program-Programming for Nutrition Specific Interventions*. 2013

## **Global Nutrition Initiatives**

Black RE, Allen LH, Bhutta ZA, Caulfield LE, de Onis M, Ezzati M. Maternal and child undernutrition: global and regional exposures and health consequences. *The Lancet* 2008; 371(9608): 243-260

Food and Agriculture Organization. *Emergencies*. <http://www.fao.org/docrep/014/am859e/am859e03.pdf>

Food and Agriculture Organization of the United Nations. *The State of Food Insecurity in the World 2013 - The multiple dimensions of food security*. FAO, IFAD and WFP

UN Department of Public Information. *Improve Maternal Health*. [http://www.un.org/millenniumgoals/pdf/Goal\\_5\\_fs.pdf](http://www.un.org/millenniumgoals/pdf/Goal_5_fs.pdf)

## **Nutritional Requirements for Women of Reproductive Age (WRA)**

Burgess A, Glasauer P. *Family Nutrition Guide*. FAO (Food and Agriculture Organization of the United Nations). ISBN 92-5-105233-6, 2004

Dean SV, Lassi ZS, Imam AM, Bhutta ZA. Preconception care: nutritional risks and interventions. *Reproductive Health* 2014; 11(Suppl 1):S2

Sharlin J and Edelstein S. *Essentials of Life Cycle Nutrition*, 1st ed. United States of America : Jones and Bartlett Publishers; 2011

### **Nutrition in Pregnancy**

Burgess A, Glasauer P. *Family Nutrition Guide*. FAO (Food and Agriculture Organization of the United Nations). Report number: ISBN 92-5-105233-6, 2004

Chapter 1: Nutrition Requirements During Pregnancy' LS Brown. Sharlin J and Edelstein S. *Essentials of Life Cycle Nutrition*, 1st ed. United States of America : Jones and Bartlett Publishers; 2011

Eriksson JG, Sandboge S, Salonen MK, Kajantie E, Osmond C. Long-term consequences of maternal overweight in pregnancy on offspring later health: Findings from the Helsinki Birth Cohort Study. *Annals of Medicine* 2014; Vol. 46, No. 6, Pages 434-438

FAO/WHO/UNU. *Human energy requirements- Report of a Joint FAO/WHO/UNU Expert Consultation*. Food and Agriculture Organization of the United Nations. Food And Nutrition Technical Report Series, 2004

International Food Policy Research Institute. 2014. *Global Nutrition Report 2014: Actions and Accountability to Accelerate the World's Progress on Nutrition*. Washington, DC.

Lassi ZS, Mansoor T, Salam RA, Das JK, Bhutta ZA. Essential pre-pregnancy and pregnancy interventions for improved maternal, newborn and child health. *Reproductive Health* 2014; 11(Suppl 1):S2

Mason JB, Shrimpton R, Saldanha LS, Ramakrishnan U, Victora CG, Girard AW. The first 500 days of life: policies to support maternal nutrition. *Glob Health Action* 2014; 7: 23623 - <http://dx.doi.org/10.3402/gha.v7.23623>

Meehan S, Beck CR, Jenkins JM, Leonardi-Bee J, Puleston R. Maternal Obesity and Infant Mortality: A Meta-Analysis. *Pediatrics* 2014; 133;863

### **Interventions for Maternal Nutrition**

Bhutta ZA, Das JK, Bahl R, Lawn JE, Salam R, Paul VK et.al.. Can available interventions end preventable deaths in mothers, newborn babies, and stillbirths, and at what cost?. *Lancet* 2014; 384: 347–70

Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost?' ZA Bhutta, JK Das, A Rizvi, et al. *The Lancet* 2013; 382:452-477.

Lassi ZS, Mansoor T, Salam RA, Das JK, Bhutta ZA. Essential pre-pregnancy and pregnancy interventions for improved maternal, newborn and child health. *Reproductive Health* 2014; 11(Suppl 1):S2

The first 500 days of life: policies to support maternal nutrition' JB Mason, R Shrimpton, LS Saldanha, et al. *Glob Health Action* 2014, 7: 23623 - <http://dx.doi.org/10.3402/gha.v7.23623>;

### **Infant and Young Child Feeding**

Bhatia J, Bhutta ZA, Kalhan SC. *Maternal and Child Nutrition The First 1000 Days*. KARGER & Nestle Nutrition Institute. Report number: ISBN 978-3-318-02388-6, 2013

Bhutta ZA, Das JK, Rizvi A, Gaffey MF, Walker N, Horton S et.al.. Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost?. *Lancet*2013; 382: 452–77

International Food Policy Research Institute. 2014. *Global Nutrition Report 2014: Actions and Accountability to Accelerate the World's Progress on Nutrition*. Washington, DC.

Save the Children. *Nutrition in the First 1,000 Days - State of the World's Mothers 2012*. ISBN 1-888393-24-6, 2012

UNICEF global databases, 2014, based on MICS, DHS, and other nationally representative surveys, 2009-2013.

World Health Organization. *Indicators for assessing infant and young child feeding practices - Part 1 Definitions. Conclusions of a consensus meeting held 6–8 November 2007 in Washington D.C., USA*. 2008

World Health Organization. *Infant and young child feeding - Model Chapter for textbooks for medical students and allied health professionals*. 2009. ISBN 978 92 4 159749 4

### **Principles of Infant and Young Child Feeding**

Facilitator Guide: The Community Infant and Young Child Feeding Counselling Package' UNICEF (November 2010)' [http://www.unicef.org/Facilitator\\_Guide.pdf](http://www.unicef.org/Facilitator_Guide.pdf)

Jones AD,Ickes SB,Smith LE,Mbuya MNN, Chasekwa B, Heidkamp RA et.al . World Health Organization infant and young child feeding indicators and their associations with child anthropometry: a synthesis of recent findings. *Maternal and Child Nutrition* 2014; 10: 1-17

UNICEF. *Programming Guide - Infant and Young Child Feeding*. Nutrition Section, Programmes, UNICEF New York.2011. Adapted from: WHO/UNICEF Integrated IYCF counseling course, 2007.

World Health Organization. *Infant and young child feeding - Model Chapter for textbooks for medical students and allied health professionals*. 2009. ISBN 978 92 4 159749 4

### **Infant Feeding in Specific Circumstances**

World Health Organization. *Essential Nutrition Actions - Improving Maternal, Newborn, Infant and Young Child Health and Nutrition*. 2013

World Health Organization. *Guidelines on Optimal feeding of low birth-weight infants in low- and middle-income countries*. 2011

World Health Organization. *Guidelines updates on HIV and Infant Feeding*. 2016

### **Interventions in IYCF**

UNICEF. *Improving Child Nutrition -The achievable imperative for global progress*. 2013

World Health Organization. *Essential Nutrition Actions - Improving Maternal, Newborn, Infant and Young Child Health and Nutrition*. 2013

### **Nutrition in School Age Children**

FAO. *Preventing micronutrient malnutrition: A guide to food based approaches* .: Food and Agriculture Organization

Linus Pauling Institute: Micronutrient Information Center. *Micronutrient Requirements of Children Ages 4 to 13 Years*. <http://lpi.oregonstate.edu/mic/life-stages/children>

Partnership for Child Development. *School Age Children: Their Nutrition and Health*. : The World Bank, UNFPA, WFP, WHO, UNICEF

UNESCO Institute for Statistics (UIS) and UNICEF (2015). Fixing the Broken Promise of Education for All: Findings from the Global Initiative on Out-of-School Children. Montreal: UIS. <http://dx.doi.org/10.15220/978-92-9189-161-0-en>

### **Nutrition in Adolescence**

Adolescence – An Age of Opportunity - The State of the World’s Children 2011 – Executive Summary. UNICEF, 2011

Adolescents: Health risks and solutions’ WHO 2014. <http://www.who.int/mediacentre/factsheets/fs345/en/>

Black RE, Victora CG, Walker SP, and the Maternal and Child Nutrition Study Group. Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet* 2013; published online June 6. [http://dx.doi.org/10.1016/S0140-6736\(13\)60937-X](http://dx.doi.org/10.1016/S0140-6736(13)60937-X).

Health for the World’s Adolescents – Adolescence: a period needing special attention’ World Health Organization (2014). <http://apps.who.int/adolescent/second-decade/section2/page2/age-not-the-whole-story.htm>

Health for the World’s Adolescents – Adolescence: a period needing special attention. World Health Organization. 2014.

Institute of Medicine, Food and Nutrition Board. [\*Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium, and Zinc\*](#). Washington, DC: National Academy Press, 2001

Institute of Medicine of the National Academies. *Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids*. Institute of Medicine. 2002

Nove A, Matthews Z, Neal S, Camacho AV. Maternal mortality in adolescents compared with women of other ages: evidence from 144 countries. *Lancet Global Health* 2014; 2: e155–164

Stang J, Story M. eds. Guidelines for adolescent nutrition services. Minneapolis, MN: Center for Leadership, Education and Training in Maternal and Child Nutrition, Division of Epidemiology and Community Health, School of Public Health, University of Minnesota; 2005

Steinberg L. *Adolescence*, 10th ed. Temple University

UNICEF. *Progress for Children - A report card on adolescents*. United Nations Children’s Fund (UNICEF). Report number: ISBN: 978-92-806-4629-0, 2012

WHO. *The sexual and reproductive health of younger adolescents - Research issues in developing countries*. World Health Organization. ISBN 978 92 4 150155 2, 2011

Williamson N. *State of World Population 2013 - Motherhood in Childhood - Facing the challenge of adolescent pregnancy*. UNFPA - United Nations Population Fund. 2013

World Health Organization - Regional Office for South East Asia. *Prevention of Deficiency Anaemia in Adolescents - Role of Weekly Iron and Folic Acid Supplementation*. World Health Organization. 2011

### **Nutritional Problems in Adolescents**

Darnton-Hill I, Nishida C, James WPT. A life course approach to diet, nutrition and the prevention of chronic diseases. *Public Health Nutrition* 2004; DOI: 10.1079/PHN2003584

Gore FM, Bloem PJN, Patton GC, Ferguson J, Joseph V, Coffey C. Global burden of disease in young people aged 10–24 years: a systematic analysis. *Lancet* 2011; 377: 2093–102

Health for the World's Adolescents – Adolescents' health-related behaviours - World Health Organization. 2014. <http://apps.who.int/adolescent/second-decade/section4/page4/Nutrition.html>

Jasik CB, Lustig RH. Adolescent Obesity and Puberty: The “Perfect Storm”. *Ann. N.Y. Acad. Sci.* 2008; 1135: 265–279

The NS, Suchindran C, North KE, Popkin BM, Gordon-Larsen P. The Association of Adolescent Obesity with Risk of Severe Obesity in Adulthood. *JAMA* 2010; 304(18): 2042–2047

WHO. Global health risks: mortality and burden of disease attributable to selected major risks. Geneva: World Health Organization, 2009.

### **Adolescent Intervention Strategies**

Haider R. *Adolescent Nutrition - A Review of the Situation in Selected South-East Asian Countries*. New Delhi: WHO SEARO; 2006.

Health for the World's Adolescents – Mortality, morbidity and disability in adolescence' World Health Organization (2014). <http://apps.who.int/adolescent/second-decade/section6>

Stang J, Story M. eds. Guidelines for adolescent nutrition services. Minneapolis, MN: Center for Leadership, Education and Training in Maternal and Child Nutrition, Division of Epidemiology and Community Health, School of Public Health, University of Minnesota; 2005

### **Tools for nutritional assessment**

Bolognia JL, Jorizzo JL, Rapini RP. *Dermatology*, 3rd ed. : Elsevier Saunders ; 2012

Division of Communication, UNICEF. *NUTRITION GLOSSARY: A resource for communicators*. New York, USA: UNICEF; 2012

Gibson RS: Principles of nutritional assessment, Oxford University Press, Oxford, 2005

Grover Z, Ee LC. Protein Energy Malnutrition. *Pediatric Clinics* 2009; 56(5)

James WD, Timothy Berger T, Elston D. *Andrews' Diseases of the Skin - Clinical Dermatology*, 11th ed. : Saunders Elsevier; 2011

Nutrition in Emergencies. UNICEF. <http://www.unicef.org/nutrition/training/3.1/10.html>

### **Anthropometry**

Division of Communication, UNICEF. *NUTRITION GLOSSARY: A resource for communicators*. New York, USA: UNICEF; 2012

The International Fetal and Newborn Growth Consortium. *Intergrowth 21st - International Fetal and Newborn Growth Standards for the 21st Century. Anthropometry Handbook*. Oxford University. 2012

UNICEF. *Nutrition in Emergencies*. <http://www.unicef.org/nutrition/training/>

WHO Multicentre Growth Reference Study Group. *WHO Child Growth Standards: Head circumference-for-age, arm circumference-for-age, triceps skinfold-for-age and subscapular skinfold-for-age: Methods and development*. . Geneva: World Health Organization; 2007

WHO Working Group. Use and interpretation of anthropometric indicators of nutritional status. *Bulletin of the World Health Organization* 1986; 64 (6): 929-941

World Health Organization. Training Course on Child Growth Assessment. Geneva, WHO, 2008.

Interpretation of Anthropometry about BMI for Adults. Centers for Disease Control and Prevention  
[http://www.cdc.gov/healthyweight/assessing/bmi/adult\\_bmi/index.html?s\\_cid=tw\\_ob064](http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/index.html?s_cid=tw_ob064)

WHO Multicentre Growth Reference Study Group. WHO Child Growth Standards: Growth velocity based on weight, length and head circumference: Methods and development. Geneva: World Health Organization, 2009

WHO. *Physical status: the use and interpretation of anthropometry: Report of a WHO Expert Committee*. Geneva, Switzerland : World Health Organization ; 1995

World Health Organization. Training Course on Child Growth Assessment. Geneva, WHO, 2008.

Laboratory Investigations & Dietary Assessment

Medical Research Council, UK. <http://dapa-toolkit.mrc.ac.uk/dietary-assessment/index.html>

National Center for Environmental Health. *Second National Report on Biochemical Indicators of Diet and Nutrition in the U.S. Population 2012*. Atlanta, GA: U.S. Centers for Disease Control and Prevention.; 2012

### **Food Security**

Benson, T. *Africa's Food and Nutrition Security Situation: Where are We and how Did We Get Here. 2020 Discussion Paper 37*. International Food Policy Research Institute. 2004

FAO. *Assessing Impact of Development Programmes on Food Security - Food Security Concepts and Frameworks: Learners' Notes*. Food and Agriculture Organization of the United Nations. 2011

FAO, IFAD and WFP. *State of Food Insecurity in the World 2014*. Food and Agriculture Organization of the United Nations, Rome.2014

FAO, IFAD and WFP. *The State of Food Insecurity in the World 2015. Meeting the 2015 international hunger targets: taking stock of uneven progress*. Food and Agriculture Organization of the United Nations, Rome.2015  
Food and Agriculture Organization of the United Nations. *The State of Food Insecurity in the World 2013 - The multiple dimensions of food security*. FAO, IFAD and WFP. Report number: E-ISBN 978-92-5-107917-1, 2013

Food Security Information for Action - Practical Guidelines .*An Introduction to the Basic Concepts of Food Security*. Food and Agriculture Organization of the United Nations. 2008

Thompson B and Amoroso L. *Combating micronutrient deficiencies : food-based approaches*. Rome, Italy: Food and Agriculture Organization, CAB International; 2011

World Food Summit. *Rome Declaration on World Food Security and World Food Summit Plan of Action* . Food and Agriculture Organization of the United Nations.1996

### **Food Security in Emergencies**

ALIVE/LEAD/FAO. *Information Tool for Pastoral Drought Management - What is an Early Warning System?*. [http://www.fao.org/ag/aqainfo/programmes/en/lead/alive\\_toolkit/pages/pa](http://www.fao.org/ag/aqainfo/programmes/en/lead/alive_toolkit/pages/pa)

FAO. *Protecting and promoting good nutrition in crisis and recovery - Resource guide*, ISBN 92-5-105 257-3 ed. Rome: Food and Agriculture Organization of the United Nations; 2005

### **Iron Deficiency – Assessment & Control of Iron Deficiency**

Andersson M, Hurrell R.F.. Prevention of Iron Deficiency in Infancy, Childhood and Adolescence. *Annales Nestle* 2010; 68:120–131 DOI: 10.1159/000319967

Bhutta ZA, Das JK, Rizvi A, Gaffey MF, Walker N, Horton S, et al. Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? *Lancet* 2013; 382: 452–77

International Nutritional Anemia Consultative Group (INACG), World Health Organization (WHO), United Nations Children's Fund (UNICEF). *Guidelines for the use of iron supplements to prevent and treat iron deficiency anemia*. WHO. Report number: ISBN: 1-57881-020-5 (ILSI Press), 1998

Mann J, Truswell AS. *Essential of Human Nutrition*, 2nd ed. New York, USA: Oxford University Press Inc.; 2002

Stang J, Story M eds. *Guidelines for Adolescent Nutrition Services*. Center for Leadership, Education and Training in Maternal and Child Nutrition, Division of Epidemiology and Community Health, School of Public Health, University of Minnesota: 2005

Thompson JL, Manore MM, Vaughan LA, Gottschall-Pass K, MacLellan DL. *The science of nutrition*, Canada ed. Canada: Pearson Canada; 2014

WHO/FAO. *Guidelines on food fortification with micronutrients*. Geneva: World Health Organization; Food and Agricultural Organization, 2006

WHO. *Guideline: daily iron and folic acid supplementation in pregnant women*. Geneva: World Health Organization, 2012.

WHO. *Guideline: Intermittent iron and folic acid supplementation in menstruating women*. Geneva: World Health Organization, 2011

WHO. *Guideline: Intermittent iron supplementation in preschool and school age children*. Geneva: World Health Organization, 2011.

WHO. *Serum transferrin receptor levels for the assessment of iron status and iron deficiency in populations*. Vitamin and Mineral Nutrition Information System. Geneva: World Health Organization. 2014

World Health Organization/ Centers for Disease Control and Prevention. *Assessing the Iron Status of Population*. World Health Organization. Report number: 2nd Edition, 2007

World Health Organization (WHO). *Iron Deficiency Anaemia - Assessment, Prevention, and Control. A guide for programme managers*. WHO, United Nations University, UNICEF. 2001

### **Iron Deficiency and Public Health Nutrition**



Horton S. *World Health Forum: The case for investment in nutrition as part of global and national development agendas - 2013*.

Imdad A, Bhutta ZA. Routine iron/folate supplementation during pregnancy: effect on maternal anaemia and birth outcomes. *Paediatr Perinat Epidemiol* 2012; 26 (S1): 168–77

Peña-Rosas et al. Daily oral iron supplementation during pregnancy. *Cochrane Database of Systematic Reviews*, 2012, Issue 12 . Art. No.: CD004736. DOI: 10.1002/14651858.CD004736.pub4

Sazawal S, Black RE, Ramsan M, Chwaya HM, Stoltzfus RJ, Dutta A. Effects of routine prophylactic supplementation with iron and folic acid on admission to hospital and mortality in preschool children in a high malaria transmission setting: community-based, randomised, placebo-controlled trial. *Lancet*. 2006; 367: 133–43

### **Vitamin A in Public Health Nutrition**

Bendich A , Deckelbaum RJ . *Preventive nutrition : the comprehensive guide for health professionals*. 3rd ed. *Vitamin A and the Prevention of Morbidity, Mortality, and Blindness*. Semba RD .Humana Press

Imdad A, Herzer K, Mayo-Wilson E, Yakoob MY, Bhutta ZA. Vitamin A supplementation for preventing morbidity and mortality in children from 6 months to 5 years of age. *Cochrane Database of Systematic Reviews* 2010, Issue 12. Art. No.: CD008524. DOI: 10.1002/14651858.CD008524.pub2

Institute of Medicine, Food and Nutrition Board. [Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium, and Zinc](#). Washington, DC: National Academy Press, 2001

Watson RR, Zibadi S, Preedy VR. *Dietary Components and Immune Function*. : Springer New York Dordrecht Heidelberg London; 2010

WHO. *Global prevalence of vitamin A deficiency in populations at risk 1995–2005*. *WHO Global Database on Vitamin A Deficiency*. Geneva, World Health Organization, 2009

WHO. *Xerophthalmia and night blindness for the assessment of clinical vitamin A deficiency in individuals and populations*. *Vitamin and Mineral Nutrition Information System*. Geneva: World Health Organization. 2014

World Health Organization (WHO). *Global prevalence of vitamin A deficiency in populations at risk 1995–2005*. *WHO Global Database on Vitamin A deficiency*. Geneva, Switzerland: WHO; 2009

### **Vitamin A Deficiency – Assessment & Management**

Gogia S, Sachdev HS. Vitamin A supplementation for the prevention of morbidity and mortality in infants six months of age or less. *Cochrane Database of Systematic Reviews* 2011, Issue 10. Art. No.: CD007480. DOI: 10.1002/14651858.CD007480.pub2

Huiming Y, Chaomin W, Meng M. Vitamin A for treating measles in children. *The Cochrane Database of Systematic Reviews* 2005, Issue 4. Art. No.: CD001479.pub3. DOI: 10.1002/14651858.CD001479.pub3.

UNICEF. *Vitamin A Supplementation: A decade of progress*. The United Nations Children’s Fund .UNICEF. 2007

WHO. *Guideline: Vitamin A supplementation in infants and children 6–59 months of age*. Geneva, World Health Organization, 2011

WHO. *Guideline: Vitamin A supplementation in postpartum women*. World Health Organization, 2011

WHO. *Guideline: Vitamin A supplementation in pregnant women*. Geneva, World Health Organization, 2011

WHO. *Handbook: IMCI integrated management of childhood illness*. Geneva, World Health Organization, 2005.  
<http://whqlibdoc.who.int/publications/2005/9241546441.pdf>

WHO. *Pocket book for Hospital care for children: guidelines for the management of common illnesses with limited resources*. Switzerland. : World Health Organization; 2005.  
<http://whqlibdoc.who.int/publications/2005/9241546700.pdf>. Geneva

WHO. *Serum retinol concentrations for determining the prevalence of vitamin A deficiency in populations*. Vitamin and Mineral Nutrition Information System. Geneva, World Health Organization, 2011

WHO/UNICEF/IVAGG Task Force. *Vitamin A Supplements – A Guide to Their Use in the Treatment and Prevention of Vitamin A Deficiency and Xerophthalmia*. Geneva: WHO, 1997

[Mayo-Wilson E<sup>1</sup>](#), [Imdad A](#), [Herzer K](#), [Yakoob MY](#), [Bhutta ZA](#). Vitamin A supplements for preventing mortality, illness, and blindness in children aged under 5: systematic review and meta-analysis. *BMJ* 2011; 343: d5094

[Sommer A](#), [Tarwotjo I](#), [Djunaedi E](#), [West KP Jr](#), [Loeden AA](#), [Tilden R](#), Impact of vitamin A supplementation on childhood mortality. A randomised controlled community trial. *Lancet*. 1986 May 24;1(8491):1169-73

### ***Iodine Deficiency – Consequences, Assessment & Control***

Andersson M, Karumbunathan V, Zimmerman MB. Global iodine status in 2011 and trends over the past decade. *Journal of Nutrition* 2012; 142(4): 740-750

Iodine status worldwide : WHO Global Database on Iodine Deficiency / editors: Bruno de Benoist ... [et al.] 2004.

Recommended Iodine Levels in Salt and Guidelines for Monitoring Their Adequacy and Effectiveness. World Health Organization 1996

Salt reduction and iodine fortification strategies in public health: report of a joint technical meeting' convened by the World Health Organization and The George Institute for Global Health in collaboration with the International Council for the Control of Iodine Deficiency Disorders Global Network, Sydney, Australia, 2013

WHO. *Iodine status worldwide - WHO Global Database on Iodine Deficiency*. World Health Organization. 2004

World Health Organization. *Assessment of iodine deficiency disorders and monitoring their elimination - A guide for programme managers*, Third ed. Geneva, Switzerland : World Health Organization.; 2007.

World Health Organization. *Nutrition. Micronutrient deficiencies. Iodine Deficiency*. International Council of Control of Iodine Deficiency Disorders (ICCIDD) 2004.

World Health Organization. Urinary iodine concentrations for determining iodine status deficiency in populations . Vitamin and Mineral Nutrition Information System, Geneva, 2013, <http://www.who.int/vmnis/indicators/en/>

Zimmerman MB, Andersson M. Update on iodine status worldwide.. *Current Opinion in Endocrinology, Diabetes and Obesity* 2012; 19(5): 382-387

### ***Assessment and Control of Zinc Deficiency***

Brown KH. iZiNCG Technical Brief No 2, 2<sup>nd</sup> Edition. Assessing population zinc status with serum zinc concentration. 2012

Engle-Stone R, Hess SY ,iZiNCG Technical Brief No.1: Quantifying the risk of zinc deficiency: Recommended indicators. 2007.

iZiNCG Technical Brief No 5, Assessing population zinc status with serum zinc concentration. 2007

Mann J, Truswell AS. *Essential of Human Nutrition* , 2nd ed. New York, USA: Oxford University Press Inc.; 2002

Mayo-Wilson E, Junior JA, Imdad A, Dean S, Chan XHS, Chan ES, Jaswal A, Bhutta ZA. Zinc supplementation for preventing mortality, morbidity, and growth failure in children aged 6 months to 12 years of age. *Cochrane Database of Systematic Reviews* 2014, Issue 5. Art. No.: CD009384. DOI: 10.1002/14651858.CD009384.pub2.

MoriR,OtaE,Middleton P,Tobe-GaiR,MahomedK,BhuttaZA.Zinc supplementation for improving pregnancy and infant outcome. *Cochrane Database of Systematic Reviews* 2012, Issue 7. Art. No.: CD000230. DOI: 10.1002/14651858.CD000230.pub4

Penny ME. Zinc Supplementation in Public Health. *Ann Nutr Metab* 2013;62(suppl 1):31–42 .

### ***The Importance of Zinc in Maternal & Child Health***

Chaffee BW, King JC. Effect of Zinc Supplementation on Pregnancy and Infant Outcomes: A Systematic Review. *Paediatr Perinat Epidemiol* 2012; 26(0 1): 118–137

Effect of Zinc Supplementation on Clinical Course of Acute Diarrhoea. Report of a Meeting, New Delhi, 7–8 May 2001. *Journal of Health, Population and Nutrition*, 2001 Dec, 19(4):338–346.

The Zinc Investigators' Collaborative Group. Therapeutic effects of oral zinc in acute and persistent diarrhea in children in developing countries: pooled analysis of randomized controlled trials. *American Journal of Clinical Nutrition*, 2000, 72:1516–22.

WHO/UNICEF. Clinical Management of Acute Diarrhoea- WHO/UNICEF Joint Statement . 2004

WHO. Zinc supplementation during pregnancy - Biological, behavioural and contextual rationale. Ian Darnton-Hill. July 2013. e-Library of Evidence for Nutrition Actions (eLENA) World Health Organization. [http://www.who.int/elena/bbc/zinc\\_pregnancy/en/](http://www.who.int/elena/bbc/zinc_pregnancy/en/)

Yakoob MY, Theodoratou E, Jabeen A, Imdad A, Eisele TP, Ferguson J,Jhass A, Rudan I, Campbell H, Black RE: Preventive zinc supplementation in developing countries: impact on mortality and morbidity due to diarrhea, pneumonia and malaria. *BMC Public Health* 2011, 11(Suppl 3):S23

Zinc Investigators' Collaborative Group. Prevention of diarrhoea and pneumonia by zinc supplementation in children in developing countries – pooled analysis of randomized trials. *Journal of Paediatrics*, 1999, 135(6):689–97.

### ***Vitamin D Deficiency – Assessment & Treatment***

Elder CJ, Bishop NJ. Rickets (Seminar). *Lancet* May 10, 2014; 383. S0140-6736(13)61650-5

Holick et al,. Evaluation, Treatment, and Prevention of Vitamin D deficiency: an Endocrine Society Clinical Practice Guideline. *J ClinEndocrinol Metab*, July 2011, 96(7):0000-0000

IOM (Institute of Medicine). 2011. *Dietary Reference Intakes for Calcium and Vitamin D*. Washington, DC: The National Academies Press

Kliegman RM, Stanton BF, St.Geme JW, Schor NF, Behrman RE. *Nelson Textbook of Pediatrics*, 19th ed. United States of America: Elsevier Saunders; 2011

National Osteoporosis Foundation. *Clinician's Guide to Prevention and Treatment of Osteoporosis*. Washington, DC: National Osteoporosis Foundation; 2014

National Osteoporosis Society. *Vitamin D and Bone Health: A Practical Clinical Guideline for Patient Management*. April 2013

Theodoratou E, Tzoulaki I, Zgaga L, Ioannidis JPA. Vitamin D and multiple health outcomes: umbrella review of systematic reviews and meta-analyses of observational studies and randomised trials. *BMJ* 2014; *BMJ* 2014;348:g2035 doi:10.1136/bmj.g2035

### ***Vitamin D: Impact on Public Health Nutrition***

Dawodu A, Akinbi H. Vitamin D nutrition in pregnancy: current opinion. *International Journal of Women's Health* 2013; 5(): 333–343

De-Regil LM, Palacios C, Ansary A, Kulier R, Peña-Rosas JP. Vitamin D supplementation for women during pregnancy. *Cochrane Database of Systematic Reviews* 2012, Issue 2. Art. No.: CD008873. DOI: 10.1002/14651858.CD008873.pub2

Eckhardt CL, Gernand AD, Roth DE, Bodnar LM. Maternal vitamin D status and infant anthropometry in a US multi-centre cohort study.. *Annals of Human Biology* 2014; 30(): 1-8

Kliegman RM, Stanton BF, St.Geme JW, Schor NF, Behrman RE. *Nelson Textbook of Pediatrics*, 19th ed. United States of America: Elsevier Saunders; 2011

Roth DE, Perumal N, Al Mahmud A, Baqui AH.. Maternal vitamin D3 supplementation during the third trimester of pregnancy: effects on infant growth in a longitudinal follow-up study in Bangladesh.. *The Journal of Pediatrics* 2013; 163(6): 1605-1611

Theodoratou E, Tzoulaki I, Zgaga L, Ioannidis JPA. Vitamin D and multiple health outcomes: umbrella review of systematic reviews and meta-analyses of observational studies and randomised trials. *BMJ* 2014; *BMJ* 2014;348:g2035 doi:10.1136/bmj.g2035

Thompson JL, Manore MM, Vaughan LA, Gottschall-Pass K, MacLellan DL. *The science of nutrition*, Canada ed. Canada: Pearson Canada; 2014

Winzenberg TM, Powell S, Shaw KA, Jones G. Vitamin D supplementation for improving bone mineral density in children. *Cochrane Database of Systematic Reviews* 2010, Issue 10. Art. No.: CD006944. DOI: 10.1002/14651858.CD006944.pub2.

World Health Organization. *Guideline; Vitamin D Supplementation in Pregnant Women* . World Health Organization. 2012

World Health Organization. *Vitamin D supplementation in children with respiratory infections*. [http://www.who.int/elena/titles/vitamind\\_pneumonia\\_children/en/](http://www.who.int/elena/titles/vitamind_pneumonia_children/en/)

World Health Organization. *Vitamin D supplementation in infants*.  
[http://www.who.int/elena/titles/vitamind\\_infants/en/](http://www.who.int/elena/titles/vitamind_infants/en/)

YakoobMY, Bhutta ZA. Vitamin D supplementation for preventing infections in children less than five years of age (Protocol). Cochrane Database of Systematic Reviews 2010, Issue 11. Art. No.: CD008824. DOI: 10.1002/14651858.CD008824

### ***Interventions for Maternal and Child Nutrition***

Black RE, Allen LH, Bhutta ZA, Caulfield LE, de Onis M, Ezzati M. et al. Maternal and child undernutrition: global and regional exposures and health consequences. *The Lancet* 2008; 371(9608): 243-260

Black RE, Victora CG, Walker SP, Bhutta ZA, Christian P, de Onis M et al. Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet* 2013; 382: 427–51

International Food Policy Research Institute. 2014. *Global Nutrition Report 2014: Actions and Accountability to Accelerate the World's Progress on Nutrition*. Washington, DC.

Peer Counselling Infant and Young Child Feeding Training Guidelines (Training and Assistance for Health and Nutrition (TAHN) Foundation) August 2012

### ***The Significance of Nutrition-Specific Interventions***

Inter-Agency Standing Committee's Nutrition Cluster & Nutrition Working Group of the Somalia Support Secretariat. *Field Guide for Management of Moderate Acute Malnutrition*. United Nations Office for Coordination of Humanitarian Affairs. 2009

Nutrition Planning, Assessment and Evaluation Service Food and Nutrition Division. *Targeting for Nutrition Improvement*. Food and Agriculture Organization of the United Nations. 2001

WHO. *Technical note: supplementary foods for the management of moderate acute malnutrition in infants and children 6–59 months of age*. Geneva, World Health Organization, 2012.

Dangour AD, Watson L, Cumming O, Boisson S, Che Y, Velleman Y, Cavill S, Allen E, Uauy R. Interventions to improve water quality and supply, sanitation and hygiene practices, and their effects on the nutritional status of children. Cochrane Database of Systematic Reviews 2013, Issue 8. Art. No.: CD009382. DOI: 10.1002/14651858.CD009382.pub2

World Health Organization. *Pocket Book of Hospital care for children - Guidelines for the management of common childhood illnesses*, Second ed. ISBN 978 92 4 154837 3:2013.

World Health Organization. *UN-water global analysis and assessment of sanitation and drinking-water (GLAAS) 2014 report: investing in water and sanitation: increasing access, reducing inequalities*. ISBN 978 92 4 150808 7, November 2014.

World Health Organization. *Nutritional Care and Support for Patients with Tuberculosis*. 2013

### ***Leadership and counselling***

Family Health International, *LifeLine and ChildLine*. Community Counsellor Training Toolkit. 2006.

Northouse, P. *Leadership: Theory and Practice 6th Edition*. Sage Publications: Los Angeles, CA. 2012.

Porter-O'Grady T. *A different age for leadership, part 1: new context, next content*. Journal of Nursing Administration, 33, 105-100. 2003

World Health Organization. *Nutritional care and support for people living with HIV/AIDS: a training course*. 2009.

World Health Organization. *A Handbook for Building Skills Counselling for Maternal and Newborn Health Care*. 2013.

**Photo credits**

*A boy in Uganda carries a bowl stuffed with ears of corn on his head.* © 2010 Sarit Saliman, Courtesy of Photoshare

*A community health worker uses D-tree International's mobile application to provide comprehensive family planning services to a client in Shinyanga, Tanzania.* © 2015 Ueli Litscher, Courtesy of Photoshare

*After a 30 minute walk, young children in Ecuador wait for the village school to open. The school is a small building with 70 children of all ages and one teacher.* © 2005 Patricia Banzer, Courtesy of Photoshare

*A woman in Mali stands next to her house, where squash plants grow from the roof.* © 1992 Bill Horn, Courtesy of Photoshare

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*Nurse Pili Makota counsels pregnant Naima Omari, 19, with her daughter Nursery Juma, three months old, on how to use a bed net at a dispensary in Naliendeke, Tanzania.* © 2016 Riccardo Gangale/VectorWorks, Courtesy of Photoshare

# APPENDIX: TRAINING SATISFACTION SURVEY

Include an evaluation form (template provided on next page) for participants to complete after completion of the training. Receiving feedback from the participant can help facilitators understand areas of strength and areas for improvement and improve the process of facilitating the training.

- Fill in the blank section of the first page of the survey with the dates of the training and your contact information.
- Ensure there are enough surveys for all participants in the class
- Distribute the survey on the last day training session and have participants hand in the surveys, consider having one participant collect all the surveys to ensure they are kept anonymous.

# IN-SERVICE NUTRITION TRAINING – TRAINING SESSION SATISFACTION SURVEY- PARTICIPANT

Thank you for attending the In-service Nutrition Training Course on \_\_\_\_\_.  
Your experience at the training is very important to us as we continue to look for ways to improve our capacity-building activities.

The purpose of this survey is to help us determine the extent to which the training met its goals and to identify ways to improve future training events.

We invite you take a few minutes to complete this short survey and provide your feedback. The survey should take less than 15 minutes.

Your participation is voluntary, anonymous and confidential (we do not ask for your name).

We will use the findings to improve future trainings.

If you have any questions or concerns about the evaluation, please contact:

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Thank you!



**PART A: Overall Experience**

1. Rate your overall level of satisfaction with the Nutrition training course

- Very satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very dissatisfied

**PART B: Nutrition Training Outcomes**

2. How relevant was the content to your role or your day to day practice? (Do you think you can use knowledge and skills from this program in you day to day practice?)

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3. Please share which topic you found the most helpful to your work?

Topic #1:	
Topic #2:	

4. Please tell us how you plan to use what you learned at the nutrition training course in your own work.

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**PART C: Training Structure**

5. Please comment on your satisfaction with the delivery method of the training. Is there anything that you are dissatisfied with regarding the training?

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**6. Rate your level of satisfaction with the following training component:**

Training Structure	Level of Satisfaction				
	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
Venue					
Class size					
Agenda- timing of lecture and activities					
Duration of class					
Interactive in-class activities					
In-class skills practice/lab					
Practicum					
Practicum debrief					

Please comment on any of the components above you are dissatisfied with:

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**PART C: Suggestions for Improvement**

**7. How can we improve the Training? Please share your ideas about how the sessions could have been improved.**

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**8. Please share any additional comments about the Training.**

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**Thank you for taking the time to provide your feedback on the nutrition training course!**



