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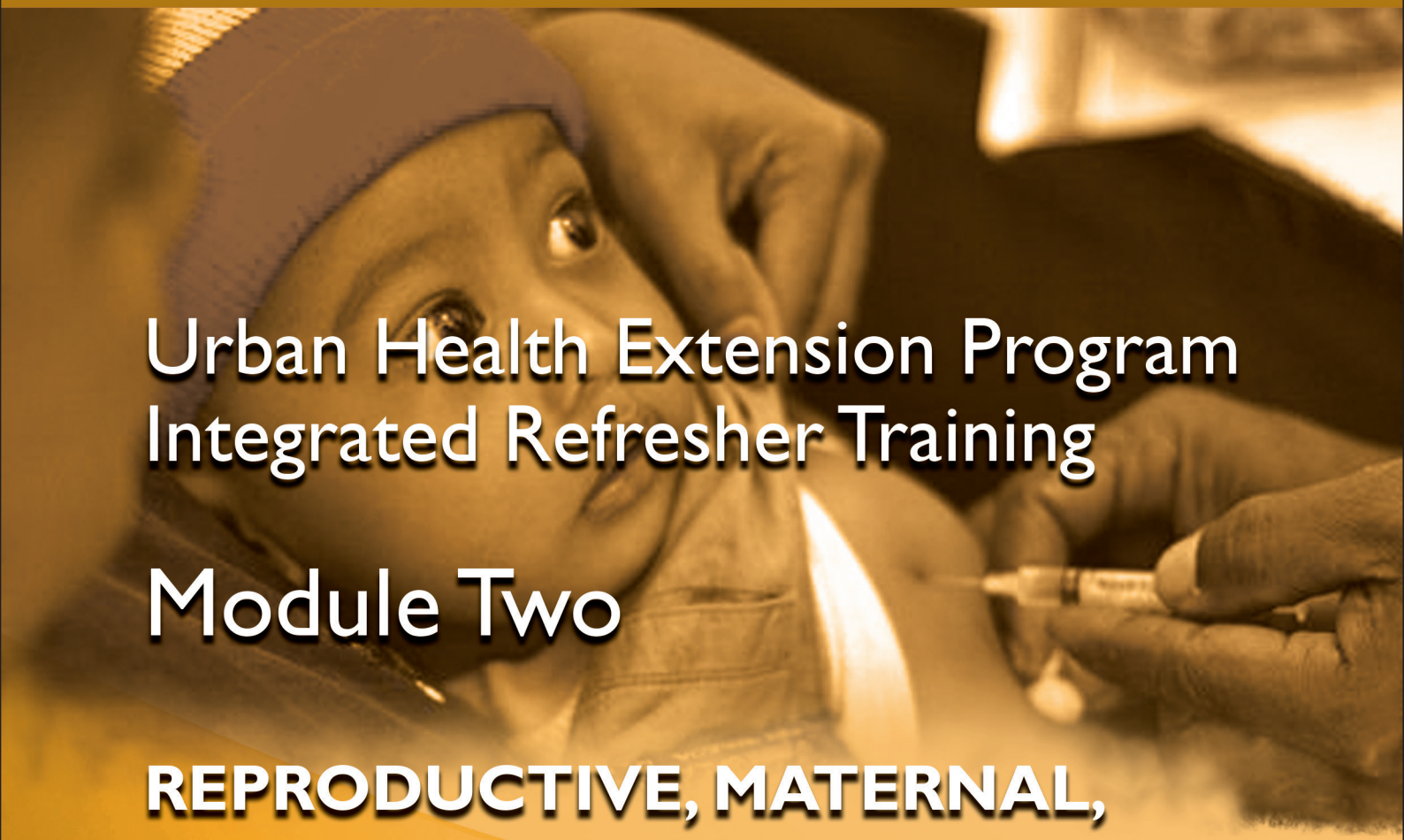

Urban Health Extension Program Integrated Refresher Training

Module Two

REPRODUCTIVE, MATERNAL, NEW BORN AND CHILD HEALTH

Participant`s Manual

February, 2017

Federal Ministry of Health

Urban Health Extension Program

Integrated Refresher Training

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Acknowledgement

The preparation and finalization of the integrated refresher training modules for Urban Health Extension Professionals (UHE-ps) has been made possible through a series of consultative meetings and workshops. During this process, the valuable contributions of our partners and program stakeholders have been crucial. This module is meant for UHE-ps in order to improve their attitude, skill and knowledge, which in turn help them provide quality health services to their clients. Therefore, the Federal Ministry of Health (FMOH) acknowledges all organizations for their contributions in the preparation, fine-tuning and finalization of this document.

FMOH is grateful to all partners involved and in particular USAIDJSI/SEUHP, JHU CCP, World Vision, Challenge TB, UNICEF, for the technical support provided to develop this Integrated Refresher Training(IRT) module in a harmonized approach.

Special acknowledgement is made by the FMOH to team of experts from the government and nongovernmental organizations who tirelessly involved in the entire processes of producing the module.

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FMOH acknowledges JSI-SEUHP for providing financial support to organize a series of workshops and consultative meetings as well as to print the final version of all training modules.

Zufan Abera Damtew (BSc N., MPH, PhD)

Director, Health Extension and Primary Health Service Directorate

Federal Ministry of Health

Acronyms

ANC	Antenatal care
ASK	Attitude, skill and knowledge
ART	Antiretroviral therapy
AYRH	Adolescent Youth Reproductive Health
BCC	Behavior change communication
BP	Blood pressure
CAR	Contraceptive acceptance rate
CBO	Community based organization
COC	Contraceptive prevalence rate
CPR	Contraceptive prevalence rate
DMPA	Depot medroxy progesterone acetate
EO	Enabling objective
FANC	Focused ante-natal Care
FP	Family planning
GUT	Genito- urinary tract
HAD	Health development army
HIV	Human immunodeficiency virus
HC	Health center
Hx	History
IDA	Iron deficiency anemia
IEC	Information, education and communication
IUCD	Intra-uterine device
LAM	Lactational amenorrhea method
MAM	Moderate acute malnutrition
MMR	Maternal Mortality Ratio
MUAC	Mid-Upper Arm Circumference
NGO	Non-governmental organization
OC	Oral contraceptive
OI	Opportunistic Infections
OTP	Out-patient Therapeutic program
PID	Pelvic inflammatory disease
PMTCT	Prevention of Mother to Child Transmission
PNC	Postnatal care
PoP	Progestin only pill
RDT	Rapid diagnostic test
RH	Reproductive Health
RMNCH	Reproductive, Maternal, Neonatal and Child Health
SAM	Severe acute malnutrition
SE	Side effect
SOP	Standard operative procedure
STI	Sexually transmitted disease
TL	Tubal ligation

TFR	Total Fertility Rate
TT	Tetanus Toxoid
UHE-P	Urban health extension professional
VPD	Vaccine Preventable Diseases
VSC	Voluntary surgical contraception
Wt	weight

Introduction

Urban Health Extension Program was introduced in Ethiopia in 2009, based on lessons learnt from successful implementation of the health extension program in rural areas. The program is designed with the aim of ensuring health equity by creating demand for essential health services through the provision of health information and basic health services at household level, school and youth centers and improving access to health services through referral to health facilities. Subsequent evaluations conducted on the program implementation have shown that, Urban HEP has contributed for increased health service awareness and utilization among urban dwellers. However, there was a wide disparity in implementation of the program and its achievements among cities. Low competency of Urban Health Extension Professionals (UHE-ps) and lack of integrated and continuous training has contributed for the discrepancy in implementation of the program.

Hence, a training need assessment was conducted to identify the competency gaps of UHE-ps when providing basic services. Therefore, considering the type of competencies that the UHE-ps need to have and identified competency gaps, six modules have been identified and developed based on Competency Based Training approach to provide in-service integrated refresher trainings. In addition, the modules were pre-tested and further refined. These modules are: -

Module 1: Social and Behavioral Change and Communication

It encompasses the health communication component to improve the knowledge and skill of UHE-ps to conduct effective health communication and improve UHE-ps attitudes affecting their performance in provision of health communication activities.

Module 2: Reproductive, Maternal, Neonatal, Child Health and Nutrition

The overall purpose of this module is to improve the attitude, knowledge and skills of UHE-ps to carry out quality family planning, maternal, neonatal, child health and nutrition services as well as enhance the UHE-ps understanding of attitudes affecting their performance in provision of family planning, maternal, neonatal, child health and nutrition services.

Module 3: Water, Hygiene and Sanitation

The overall purpose of this module is to improve the knowledge and skills of UHE-ps to carry out quality Water, Sanitation and Hygiene services as well as enhances the UHE-ps understanding of attitudes affecting their performance in provision of Water, Sanitation and Hygiene services.

Module 4: Major Communicable Diseases Prevention and Control

This module prepares Urban Health Extension professionals (UHE-ps) to provide TB/HIV and malaria-related services including reaching vulnerable populations with key TB/HIV prevention messages, HIV/STI counseling and testing (HCT), TB case detection, TB and HIV/AIDS care and support, referrals to services and malaria prevention and control in malarias areas.

Module 5: Non Communicable Diseases Prevention and Control and Mental Health

The Purpose of the module is to enable the participant s (UHEPs) explore and use their Attitude, Skill and knowledge to improve their performances in terms of providing quality health services related to major NCDs and mental health

Module 6: Basic First Aid

The purpose of this module is to improve the knowledge, attitude and skill of UHE-ps to provide quality first aid service and injury management. The module will also consist of transferring information regarding first aid and injury management to household and communities. This module also includes pre hospital cares.

Module Syllabus

Module description: This module contains theoretical and practical lessons which are intended for improving competencies of the trainees to help them provide quality RMNCH services.

Module goal: Enhance the capacity of the trainees (UHE-Ps) by equipping them with enabling [attitude, skill and knowledge (ASK)] on the basics and practical application of AYRH, FP, MNCH services to their communities

Learning objectives: By the end of this training module, the participants will be able to:

- Explain the AYRH needs, show enabling attitude toward provision of AYRH service and effectively provide AYRH service
- Describe methods of FP and their common features, counsel client on all family planning(FP) methods and provide short term FP methods
- Explain the priority health needs of the mothers, new born infants and children in the communities and demonstrate their ability how to provide effective MNCH services..
- Elucidate the basics of common childhood illness,VPDs and child immunization and show their improved skills on how to provide home- based immediate care for a sick child.

Training methods

- Brain storming,
- Group discussion/ Group work
- Plenary discussion
- Question and Answer
- Agree/ Disagree exercises
- Presentation
- Role play
- Case study
- Demonstration

Training materials and equipment required

- LCD
- Video CD/DVD
- PC
- Flipchart
- Markers
- Index cards
- Case studies
- Images
- Social- ecology map
- SOPs, flowcharts, algorithms
- Note book
- Figures and template

- Penile model
- FP drugs/equipment
- Facilitator/participant handouts
- Adult height and weight scale Mid-Upper Arm Circumference (MUAC) tape
- Blood pressure apparatus and stethoscope
- Pregnancy test kit
- Toys/models
- Body mass index chart
- Fetoscope
- Vaccines
- Food items
- Cooking wares (for nutritional demo)
- Referral slip
- UHEP Integrated Refresher Training (IRT) facilitator guide.
- UHEPIRT participant guide.
- UHEP implementation manual(revised)

Participant selection criteria: Those who work on the UHEP with position of UHE-Ps and UHEP supervisors/ coordinator

Module assessment: Assessment of the module (pre-test, post-test, and continuous practical assessments) should be based on attainment of the learning outcomes with reference to the performance criteria indicated in the course objectives.

Time allocated: 4days

Optimum class size

- Participants: 25–30 trainees per class
- Trainer: two trainers per class and with environmental health background and who have taken TOT

Module outline

Units and sessions	Time in minutes	Training methods
Unit one: Adolescent and Youth Reproductive Health	**155**	
Session 1: Introduction and Basics of AYRH	90	Group discussion, Brainstorming, group exercise
Session 2: Provision of AYRH	65	Role-play, Brainstorming and Demonstration
Unit two: Family Planning	**355**	
Session 1: Overview of population and FP	90	Brain storming and group discussion, Group exercise, buzz group discussion
Session 2: Family planning service provision	265	Q&A, Brainstorming , Group activities, "Agree/ Disagree exercise, role-play,
Unit three: Maternal and Newborn Health Care	**745**	
Session 1: Introduction to maternal and new born health	80	Card exercise, Buzz group discussion, Group Activity
Session 2: Focused Antenatal Care Service(FANC)	180	Class activity, buzz group discussion, role play, demonstration, experience sharing, case study
Session 3: Maternal Nutrition	135	Class activity, brain storming, role play, Demonstration, Gallery walk
Session 4: Prevention of Mother to Child Transmission	120	Group activity, role play, group discussion, group play
Session 5: Delivery and post-partum care	110	Brain storming, group discussion and experience sharing, role- play, group exercise
Session 6: Care for neonates	20	Brainstorming and experience sharing, demonstration and group discussion, case study, group exercise, group activity with case study
Unit four: Child Health	**85**	
Session 1: Immunization	85	Group exercises, demonstration
Session 2: Identification and care of sick child	90	Case study
Session 3: Child nutrition	210	Demonstration, case study, brainstorming, class exercise, group discussion

Module Schedule

Day and Time			Activity
Day 1	Morning	08.30 am – 10.00 am	Registration, opening introduction to the course and pre-test
		10.00 am – 10.30 am	Tea break
		10.30 am – 12.00 pm	Unit 1: AYRH session 1: Introduction to AYRH
		12.00 pm – 01.00 pm	Lunch
	Afternoon	01.00 pm – 02.00 pm	Session 2: Provision of AYRH services
		02.00 pm – 03.30 pm	Unit 2: Family planning Session 1: Overview of FP
		03.30 pm – 03.45 pm	Tea break
		03.45 pm – 05.15 pm	Session 2: FP services
		05.15 pm – 05.30 pm	Daily evaluation
Day 2	Morning	08.00 am – 08. 30 am	Day 1 Recap
		08.30 am - 10.00 am	Session 2: FP services continues
		10.00 am – 10.15 am	Tea break
		10.15 am – 11.40 am	Session 2: FP services continues
		11.40 am- 12. 40 pm	Unit 3: Maternal and newborn health care Session 1: Introduction to maternal and newborn health
		12.40 pm- 01.40 pm	Lunch
	Afternoon	01.40 pm – 02.00 pm	Session 1: Introduction to maternal and newborn health cont.
		02.00 pm- 04. 00 pm	Session 2: FANC
		04.00 pm – 04.15 pm	Tea break
		04.15 pm – 05.15 pm	Session 2: FANC continues
		05.15 pm – 05.30 pm	Daily evaluation
Day 3	Morning	08.00 am – 08.30 am	Day 2 Recap
		08.30 am – 10.45 am	Session 3: Maternal nutrition
		10.45 am – 11.00 am	Tea break
		11. 00 am- 01. 00 pm	Session 4: PMTCT
	Afternoon	01.00 pm – 02.00 pm	Lunch
		02.00 pm- 03.45 pm	Session 5: Delivery and post-partum care continues
		03.45 pm – 04. 00 pm	Tea Break
		04. 00 pm – 05. 20 pm	Session 6: Care for newborn
		05.20 pm – 05. 30 pm	Daily evaluation

Day 4	Morning	08.00 am – 08.30 am	Day 3 Recap
		08.30 am – 09: 10 am	Session 6: care for newborn continues
		09.10 am- 10. 35 am	Unit 4: child health Session 1: Immunization
		10.35am – 10. 50 am	Tea break
		10. 50 am- 12. 30 pm	Session 2: Identification and care of sick child
		12. 30 pm- 01:30 pm	lunch
	Afternoon	01. 30 pm –04.00 pm	Session 3: child nutrition
		04. 00 pm- 04.15 pm	Tea break
		04. 15 pm – 05. 00 pm	Session 3: child nutrition continues
		05. 00 pm – 05. 45 pm	Post test, module evaluation and conclusions

Module units

UNIT ONE: ADOLESCENT AND YOUTH REPRODUCTIVE HEALTH (AYRH)

Session 1: Introduction and Basics of AYRH

Session 2: Provision of AY RH services

UNIT TWO: FAMILY PLANNING

Session 1: Overview of FP

Session 2: Family planning services

UNIT THREE: MATERNAL AND NEWBORN HEALTH CARE

Session 1: Introduction to maternal and new born health

Session 2: Focused Antenatal Care Service(FANC)

Session 3: Maternal nutrition

Session 4: Prevention of Mother to Child Transmission

Session 5: Delivery and post-partum care

Session 6: Care for neonates

UNIT FOUR: CHILD HEALTH

Session 1: Immunization

Session 2: Identification and care of sick child

Session 3: Child nutrition

Pre-test, (40 min)

Before starting the training sessions your facilitator provides you a pre- test. while working on your pre-test, follow the instruction of your facilitator carefully.

At the end of the day, your facilitator may provide you the "take-home -assignments and you need to work on the assignments.

Unit one: Adolescent & Youth Reproductive Health

Unit description: This unit is developed to enhance the trainees' competencies to understand adolescent and youth reproductive health needs, to promote enabling attitude toward provision of AYRH service and equip them to effectively provide AYRH service.

Unit Objective: To enhance the trainees' knowledge, skills, and attitude for identifying AYRH needs, and enhance their competencies to provide AYRH services.

Specific objectives : By the end of this training unit the participant will be able to:

- Define who adolescent, youth and young people are, and describe the major reproductive health problems of young people.
- Demonstrate accepting attitude and improved skills to provide adolescent and youth reproductive health services.

Time: 155 minutes

Session 1: Introduction and basics of AYRH

Session Objective: By the end of this session the participant will be able to describe adolescent, youth and young people and identify the major reproductive health problem of young people.

Time: 90 minutes

Enabling Objectives: By the end of this session, the participant will able to:

- Understand the difference between adolescent, youth and young people
- Outline the major reproductive health problems of young people
- Explain the importance of addressing sexual and reproductive health problems of young people

Enabling objective 1: Understand the difference between adolescent, youth and young people

Training Methods: Group discussion (15 min) and brainstorming (10 min)

- Your facilitator will ask you to discuss the following questions in group and brainstorm on each of the questions.

Questions :

- Define adolescents, youth or young people?
- What are the features or characteristics of adolescents or young people?
- What is the proportion of young people in their communities

Note:

Adolescents are those individuals between the ages of 10 and 19 years. Youth are individuals between the ages of 15 to 24 years. Young people refers to individuals from age 10 to 24 years.

Adolescence is the period of transition between childhood and adulthood. During this time, several key developmental experiences occur. These experiences include physical and sexual maturation, movement toward social and economic independence, and development of identity.

Adolescents and youth are characterized by

- Body changes – development of secondary sexual characteristics like development of breast among girls, growth of body hair, change in voice etc
- Adolescents will become independent- make decisions by themselves
- Experimentation and curiosity increases- with sex, alcohol and drug use etc.
- Concern about their body image

Enabling objective 2: Outline the major reproductive health problems of young people

Time: 35 minutes

Training Methods: Group discussions (35 minutes)

- you will be asked to form groups and discuss and identify major health problems of young people in your communities. Thus, you need to work on this and present to the larger group
- Next, your facilitator will ask you to form 3 groups and then to discuss on the following respective questions .You are expected to present your work to the larger group.

***Group 1**: What is unprotected sex and its consequences*

***Group 2:** What are STIs including HIV/AIDS and their consequences*

***Group 3:** What is smoking, alcohol and substance abuse and its consequence*

Note:

Major reproductive Health Problems of Young People

- Unwanted pregnancy
- Early marriage
- Underage pregnancy and delivery
- Fistula
- Unsafe abortion
- HIV/AIDS and Sexually Transmitted Infections (STIs)
- Harassment
- Sexual abuse
- Rape

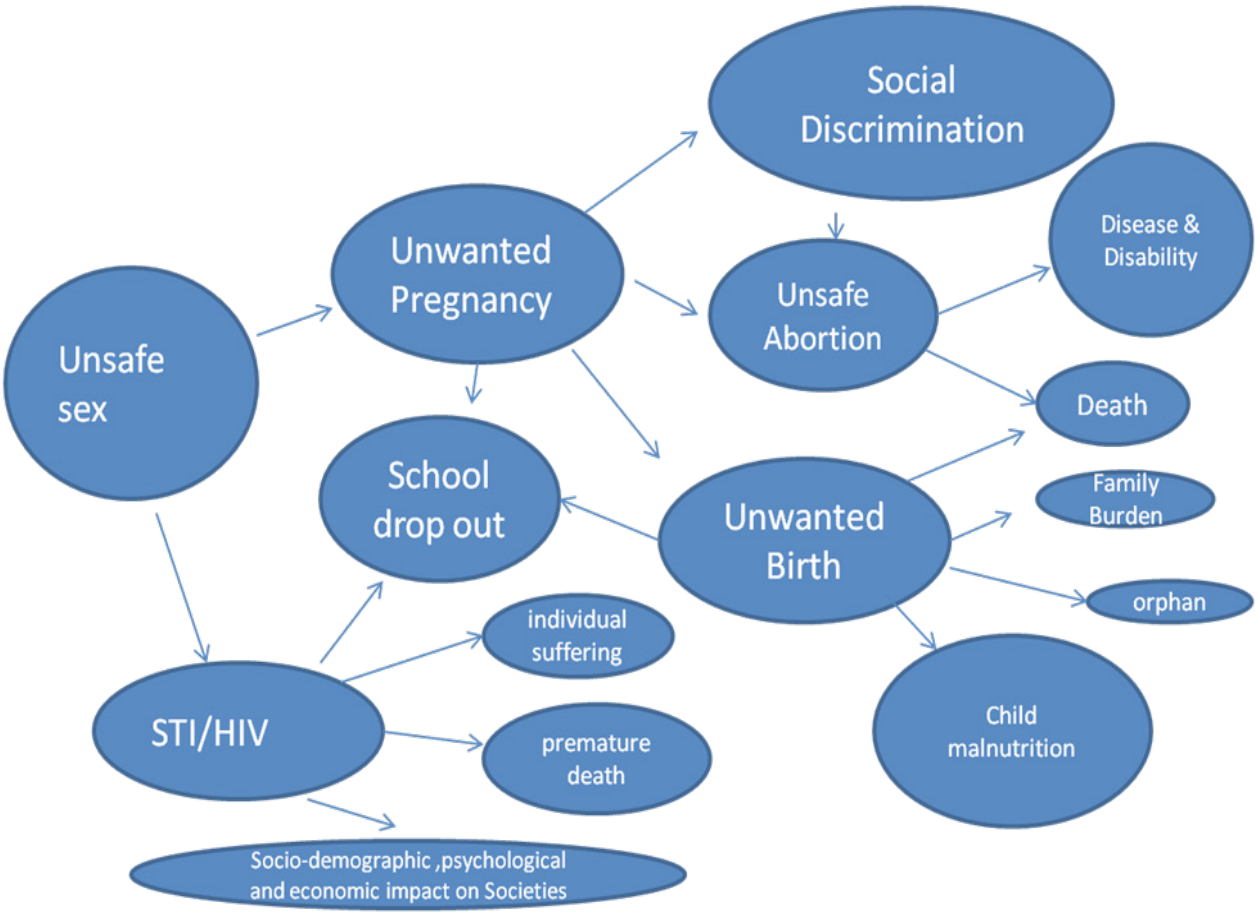


Fig :The consequences of unprotected sex.

- Your facilitator may summarize the session by describing the major reproductive health problems of young problems and their consequences as follow;
  - Sexually Transmitted Infections (STI) including HIV/AIDS and their consequences
  - Higher chance of acquiring HIV when infected with other STIs
  - Lost school days or work days due to illness
  - Treatment cost
  - Miscarriage during pregnancy
  - Ectopic pregnancy
  - Fetal deformity and negative health effects for children born from mothers with STIs
  - Premature death
  - Long term effects on fertility and urinary system
  - Substance use and its consequences
  - Rejection by families and friends
  - Conflict with other people
  - Neglecting duties and responsibilities
  - Poor school performance and dropout

- Financial constraints leading to economic deprivation
- Involvement in criminal acts and conflict with the law leading to conviction and imprisonment

Enabling objective 3: Explain the importance of addressing sexual and reproductive health problems of young people

Time: 30min

Training Methods: Brainstorming (10 min) and experience sharing (15 min)

Now, you will be asked to reflect on the importance of providing sexual and reproductive health services for young people and to share experiences based on the following points

- How often do you encounter adolescents seeking services during your home visit?
- What are the common issues raised by the adolescents? How do you address their questions?
- What are the key challenges you face during counseling adolescents? How do you handle such challenges?
- What are the areas UHEPs need to improve to properly address adolescents' problems?

Note

Importance of Addressing Sexual & Reproductive Health Problems of Young People:

Young people account for a third of the Ethiopian population. Sexual and reproductive health problems (such as HIV/AIDS/STIs, unwanted pregnancy and unsafe abortion) are more common and have serious consequences among young people. Risky behaviors which start during adolescence (like smoking, alcohol and substance abuse) frequently leads to severe health problems. Future socioeconomic development of our country depends on having healthy and educated young people, therefore early intervention is important to prevent common reproductive health problems and produce productive young citizens.

Session 2: Provision of Adolescent and Youth RH services

Session Objective: By end of this training session, the participant will be equipped with the required knowledge, attitude and skill to provide counseling and group education to young people on sexual and reproductive health matters as well as demonstrate proper condom use.

Enabling Objectives: By the end of this sub session, the participant will able to:

- Demonstrate the proper counseling and group education skills on reproductive health for adolescent and youth
- Exhibit enhanced skills on demonstration of proper use of condom

Time:65 minutes

Enabling objective 1: Demonstrate proper counseling and group education skills on reproductive health for adolescent and youth

Training Methods: Role-play (40 min)

Your facilitator will ask you to form the smaller groups (3) and do a role-play based on the following information. strictly follow the instruction of your facilitator and act accordingly.

Group 1will counsel a sexually active unmarried adolescent on safer sexual behavior (focusing on unwanted pregnancy, unsafe abortion, HIV and STIs).

Group 2 will counsel a married adolescent on early childbearing and family planning.

Group 3 will provide sex education to young adolescents (focusing on menarche and its psychological implication) in second-cycle primary school.

Scenarios for role-play

Group 1-scenario one

A UHE-p has a meeting to counsel Bekele on safer sexual behavior. Bekele is a 19-year-old boy who is sexually active but does not have a regular partner or a girlfriend. Demonstrate how you will counsel him using the family plaining flipchart. The person who acts as Bekele will listen, ask, and answer questions in a realistic manner.

Group 2-scenario two

Ayantu is 16-year-old girl who has been married for three months to a merchant who is nine years older than her. When you visit her at home, you suspect that she might not be using family planning. Demonstrate how you will counsel her using the family planning flipchart. The person who acts as Ayantu will listen, ask, and answer questions in a realistic manner.

Group3-scenario three

A UHE-p has to give sex education to grade six students. You estimated their average age to be 12 years. Demonstrate how you will facilitate the group discussion. Those playing students will listen, ask, and answer questions in a realistic manner.

Note

Establishing trust with young people is very important to deliver sexual and reproductive health services to them. There are things that UHEPs can do to encourage a young person to trust them. Facilitators can use the following note while facilitating feedback on role-play.

To promote trust with young people you have to:

- Be genuinely open to their questions and need for information
- Avoid judgmental words or body languages
- Understand that the young person may have feelings of discomfort and uncertainty.
- Demonstrate sincerity and willingness to help
- Reinforce their decision to seek counseling and/or healthcare
- Exhibit honesty, including an ability to admit when you do not know the answer
- Demonstrate responsibility in fulfilling your professional role
- Exhibit confidence and professional competence

Behavior likely to promote trust: Non-verbal communication

ROLES (using this abbreviation one can memorize the following non-verbal communication)

R = Relax the client by using facial expressions that show interest

O = Open up to the client by using a warm and caring tone of voice, i.e. help them to talk

L = Lean towards the client, not away from them

E = Establish and maintain eye contact with the client

S = Smile.

Behavior likely to promote trust: practical arrangements

Here are some practical tips to create a good and friendly first impression.

- Start on time.
- Smile and warmly greet the client.
- Introduce yourself and explain what you do.
- It will help to establish rapport during the first session if you:
    - Face the young person, sitting in similar chairs
    - Use the young person's name during the session
    - Begin the session by allowing the young person to talk freely before you ask questions
    - Congratulate the young person for seeking help.

Enabling objective 2: Demonstrate proper use of condom

Training Methods: Brainstorming (10 min) & demonstration (15 min)

Here, you can be asked to brainstorm the following question and to demonstrate proper use of condoms

Question: What strategies can prevent HIV and other STI transmission from one person to another?

Note

The most widely known strategies for prevention of sexual HIV transmission are often known as the 'ABC rules:'

'A' stands for 'abstinence,' which means refraining from premarital sexual intercourse.

'B' stands for 'be faithful,' which means maintaining faithful relationships with a long-term partner.

'C' stands for 'proper use of condoms,' which means correct and consistent use of condoms in sexual relations.

Checklist for proper condom use

Buying and storing condoms:

Check expiry date on the package. Do not use an 'out of date' condom.

Make sure that the package doesn't have any tears (opening) or signs of damage.

Do not store condom in very hot places. Extreme heat may damage the protective effect.

Using condoms:

Open the package carefully. Take care not to tear the condom, or damage it with your fingernails.

Pinch the end of the condom and place it on the erect penis.

Still pinching the end, unroll the condom down the shaft of the penis.

If you want to use a lubricant, choose one that is water-based. Oil-based lubricants can cause condoms to disintegrate.

After ejaculation, hold the condom and withdraw the penis before it becomes soft. Never re-use a condom.

Wrap and dispose the condom in the trash bin where it cannot be accessed by people or animals. Do not throw condom into a flush toilet.

UNIT 2: FAMILY PLANNING

Unit description: This unit is developed to improve trainees' competency to help them understand the basics of FP and provide quality FP services to their communities

Unit objective: To equip the participants with required knowledge, attitude and skills which enable them to distinguish benefits of FP and administer some of the FP methods or refer clients for advanced choices.

Unit specific objectives: By the end of the training unit the participant will be able to:

- Define common terms of FP, identify all benefits of FP and describe the common social- ecology factors that affect the utilization of FP services.
- Demonstrate the enhanced skills how to provide basic and effective FP services to their clients (counseling on and administering FP methods including referral linkages).

Time:355 min

Session 1: Overview of Family Planning

Session Objective: By end of this training session, the participants will be able to define common terms of FP, identify all benefits of FP and describe the common social ecology factors that affect the utilization of FP services

Enabling Objectives: By end of the training session, the participant will be able to;

- Express their understanding about the definition and benefits of FP
- Demonstrate expanded knowledge of scanning social- ecology factors that affect the utilization of FP services

Time: 90 min

Enabling Objectives1: Understand definition and benefits of Family Planning

You will be asked to define the following questions. Use your past and present experience to respond

Q1. What is FP?

Q2. What is Contraception?

Next to this, you will be encouraged to group yourselves and discuss on the common benefits of FP Based on the following headings. you can use your past and present experiences to reflect on issues

Note 1:

Definition of key terms

Family Planning (FP). Family planning is the decision-making process by couples, together or individually, on the number of children that they would like to have in their lifetime, and the age interval between children. This means that both halves of a couple have equal rights to decide on their future fertility.

Contraception: The deliberate use of artificial methods or other techniques to prevent pregnancy as a consequence of sexual intercourse. The major forms of artificial contraception are barrier methods, of which the most

common is the condom; the contraceptive pill, which contains synthetic sex hormones that prevent ovulation in the female; intrauterine devices, such as the coil, which prevent the fertilized ovum from implanting in the uterus; and male or female sterilization.

Note 2:

Benefits of FP

Health benefits to the mother

Contraceptive use reduces maternal mortality and improves women's health by preventing unwanted and high-risk pregnancies and reducing the need for unsafe abortions. Some contraceptives also improve women's health by reducing the likelihood of disease transmission and protecting against certain

cancers and health problems.

Avoiding too early and too late pregnancies: Family planning helps mothers avoid pregnancy when they are vulnerable because of their youth or old age. The risk of having pregnancy-induced hypertension (high blood pressure) is much higher in younger mothers. On the other hand, older mothers, who have

given birth to S or more children, have a tendency to uterine rupture during labour, which can cause severe vaginal bleeding and shock. In places where emergency obstetric care facilities are lacking, these two consequences of age have been leading causes of maternal deaths.

Limiting the number of pregnancies: Once the desired number of children has been achieved, a woman can avoid further pregnancy by using family planning methods. Any pregnancy and birth equal to, or higher than, five can have greater risks for the mother. The risk of dying from multiparity (giving birth more than once) increase for a woman who has given birth to five or more children; her risk is 1.5 to 3 times higher than those who have given birth to two to three children.

Preventing abortion: Most abortions result from unwanted pregnancy, and significant numbers of maternal deaths can be attributed to unsafe abortion induced by untrained practitioners. In Addis Ababa, abortion is one of the leading causes of maternal death. Family planning helps mothers prevent such

unwanted pregnancies.

Benefits to the children

Together with other health services, such as diarrhoea and pneumonia management, the nutrition programme and the expanded programme on immunization, family planning directly contributes to the improvement of children's health and growth. It also indirectly contributes to children's wellbeing and development by improving maternal health. Adequately spaced children can be well-fed and healthier than closely spaced children. Mothers can have ample time and good health to care for their children. Parents should be able to seek healthcare for them without being constrained.

Social and economic benefits

Family planning reduces health risks to women and gives them more control over their reproductive lives. With better health and greater control over their lives, women can take advantage of education, employment and civic opportunities. Families with fewer children are often able to send those children to school so girls get a chance to attain higher education, and as an outcome, the age of their first marriage is often later and their years of fertility reduced. They also benefit from being an employee.

In addition, it is not difficult for parents to clothe and feed their children if they can limit their family size. The expenses that they need to care for a small-sized family will be less, so they can save more and be self-sufficient. With regard to social services, both the government and the family invest less if the family and population size is small. This can help save essential resources and thereby contribute to the economic growth of the nation as a whole.

In general, having a larger proportion of well-educated, healthy, productive and self-sufficient families can contribute a great deal to the sustainable development of a country. In this regard, the social and economic benefits of the family are essential.

Enabling Objective 2 : Demonstrate expanded knowledge of scanning social- ecology factors that

affect the utilization of FP services

Training Methods: Group exercise and buzz group discussion (40 min)

By this EO, you will discuss in group about social ecology factors that affect the utilization of FP services based on following case scenario (a scenario of Wro Kumele) and social ecology map. After discussions, you need to organize your findings using the table below (Table 1). your facilitator can assist you to make your discussion fruitful

Case scenario

During her household visit, Sr. Chaltu met Wro Kumele, 38, who looks desperate. Wro Kumele told Sr. Chaltu that she had given birth to 5 children (all alive and all girls) before she moved to Adama last year. She did not attend school, but is married to a carpenter. Currently, she is not feeling well and she has no money to care for herself. On the other hand, she is under pressure as her husband has decided to have more babies (boys). She lives in a community where the misconception 'modern contraceptive damages maternal health' is widespread. She is aware of the availability of free of charge long acting FP methods at the nearby HC. Hence, she always dreamed to stop child bearing nonetheless she does not know how to negotiate this with her husband.

Table 1: Social Ecology factors by stratum

Stratum	Identified problems	Possible solutions
Individual/ family	1.	1.
	2.	2.
	3.	3.
Community	1.	1.
	2.	2.
	3.	3.
Institution	1.	1.
	2.	2.
	3.	3.
Policy	1.	1.
	2.	2.
	3.	3.
	4,	4.

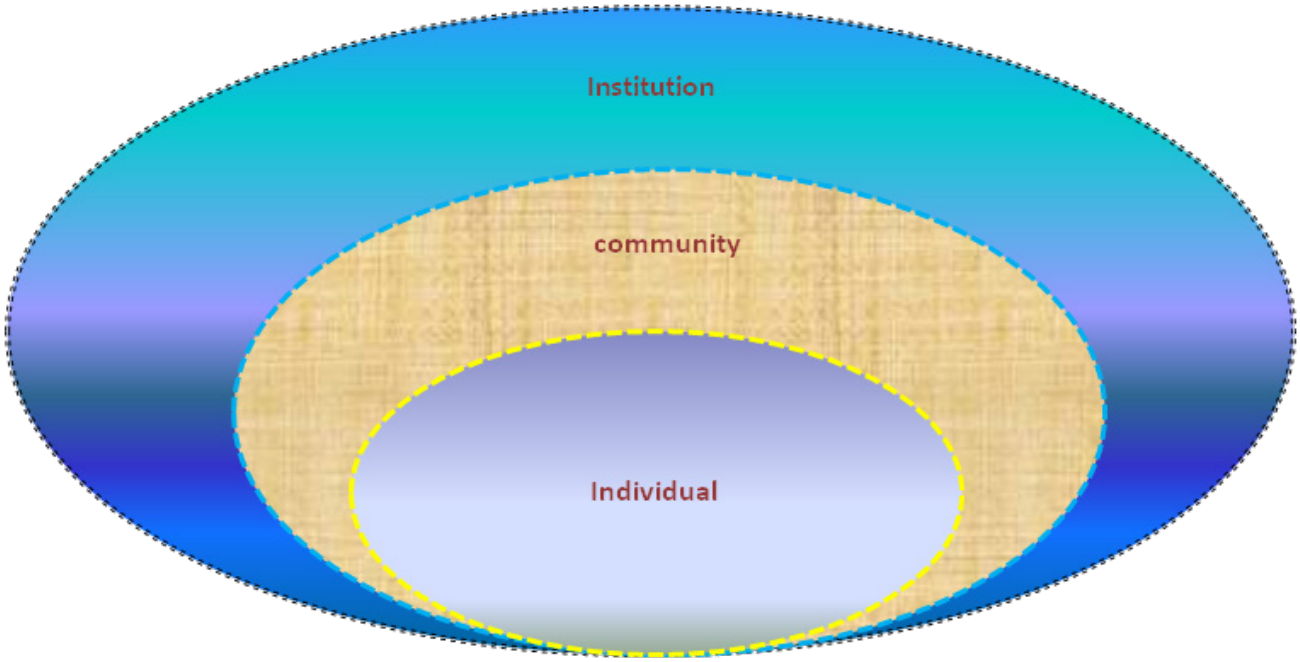


Fig 2: Social Ecology map

Session 2: Family planning services

Session Objective: By end of this training session, the participant will be able to provide basic information about FP methods, clarify his/ her personal inhibiting attitudes and exhibit enhanced skills to effectively counsel and administer contraceptives to the clients

Time: 265 min

Enabling Objectives: By end of the session, the participant will be able to;

- Provide basic information on all FP methods
- Clarify self inhibiting attitude against FP services and how such attitude impacts their day- to-day activities
- Demonstrate the advanced skills how to provide effective FP counselling to the clients
- Demonstrate enhanced skill how to administer contraceptives to the client

Enabling objective 1: Provide basic information on all FP methods

Training methods: (Q&A) (10 min) Brain Storming (30 minutes) and Group exercise (45)

Your facilitator will (a) ask you to answer the following question (b) to brainstorm categories of FP methods according to the classification given below and (C) to organize FP methods by their actions, advantage, disadvantage, SE and CI using the following table (Table 2)

Question: What type of FP methods do you know?

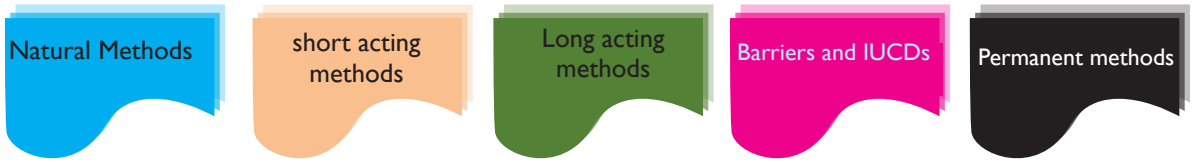


Table 2: Participant Template: summary of contraceptive features by types and categories

Contraceptive methods	How it works	Advantages	Disadvantages	Side effects	Contra-indications
Natural methods					
LAM					
Short-acting methods					
COC					
PoP					
DMPA (injectables)					
Long acting methods					
Copper T- *380A*					
Norplant (6 rods) Jadelle (2 rods) Implanon (1 rod)					
Barriers and IUCD					
Male and female condoms					
Diaphragm					
Permanent methods					
VSC- male sterilization					
Tubal ligation- female sterilization					

Note: refer to the following table for the summary of contraceptive features by types and categories (Table 3).

Table 3: summary of contraceptive features by types and categories

Methods	How it works	Advantage	Disadvantage	Side effect	Contraindication
1. Natural Methods					
LAM	• Prevents the release of eggs from the ovaries (ovulation)	• Effectively prevents pregnancy for 6 months • Encourages the best breast feeding patterns • can be used immediately after birth • No hormonal side Effects (SE)	• Not a suitable method if the mother is working outside the home • Not effective if the mother doesn't feed her baby continuously (day and night)	• No side effect	• No contraindication
2. Short acting methods					
COC	• Prevents the release of eggs from ovaries (ovulation)	• Very effective when taken consistently and correctly • safely taken throughout the reproductive life • Fertility returns soon after stopping it • helps prevent IDA • helps prevent endometrial tumors, ovarian cancer/ cyst and PID	• Not recommended for breast feeding woman and in woman with increased BP • It causes stroke or heart attack • Not protect against STI	• In small number of women, it causes nausea, headache, sore breast, mood change and spotting	• Severe headache, severe chest pain, leg swelling, breathing difficulty, collapse and coughing up blood
PoP	• Thickens cervical mucus to block sperm and egg from meeting and prevents ovulation	• Can be used by nursing mother • Free of Estrogen related SE such as stroke or heart attack • helps prevent endometrial tumors, ovarian cancer/ cyst	• For women who are not breast feeding, irregular periods, spotting and amenorrhea for several months • Not protect against STI		
DMPA	• Thickens cervical mucus to block sperm and egg from meeting and prevents ovulation	• Very effective and long acting • Can be used by nursing mother • Free of Estrogen related SE (stroke or heart attack) • helps prevent uterine tumors	• Causes disturbance of menstrual cycle • Delays return of fertility • Doesn't protect against STI		• In small number of women, it causes nausea, headache, dizziness, breast tenderness, hair loss and acne
3. Long acting methods (IUCDand Implants)					

Methods	How it works	Advantage	Disadvantage	Side effect	Contraindication
Copper T-*380A*	• Copper component damages sperm and prevents it from meeting the egg	• Very effective and long acting cost- effective method • No hormonal SE and suitable for lactating mother • Fertility returns sooner. it can be removed any time • helps prevent ectopic pregnancy	• Requires skilled provider • PID and increased risk of HIV • Expulsion: causes an expected pregnancy	• Uterine perforation may occur if the provider is a less- skilled • Pelvic pain and dysmenorrhea	• Current PID • Known or suspected pregnancy • Undiagnosed irregular GUT bleeding • Known allergy to IUCD
Norplant (6 rod), Jadelle (2 rods), Implanon (1rod)	• Thickens cervical mucus to block sperm and egg from meeting and prevents ovulation	• The most effective and long acting (3-7 Yrs) • Can be used by women who can't use those contraceptives having estrogen and who have difficulty to take pills on daily basis • can be removed at any time if needed	• requires highly skilled professionals to insert and remove it • causes irregular periods • Not protect against STI • delays return of fertility	• Wt gain, nervousness, anxiety, dizziness, nausea, depression and infection at incision site in few women	
4. Barriers					
Male and female Condoms ***Diaphragm***	• Forms a barrier to prevent sperm and egg from meeting	• Very effective if taken consistently and correctly • No hormonal SE • Fertility returns shortly • helps prevent STI/ HIV	• Women have to rely on the man`s corporation to protect her selves • May break if not kept well or possibility of slippage: causes an expected pregnancy	• May causes allergy in few men or women	
5. Permanent methods (Male and Female Sterilizations)					
VSC- **Tubal ligation-**	• Keeps sperm out of ejaculated semen in male sterilization (VSC) and blocks eggs from meeting sperm in female sterilization (tubal ligation (TL))	• Very effective and permanent • No hormonal SE • Doesn't affect sexual pleasure	• VSC is not immediately effective and needs to stay away from having sex for 2-3 months • Requires highly skilled personnel to do VSC and tubal ligation • Once done, both methods are not reversible. Critical decision and consultation needed • There might be regrets for what have been done • Doesn't protect against STI		

Enabling objective 2 : Clarify self inhibiting attitude against FP services and how such attitude impacts their day- to-day activities

Training Method: Brainstorming (30 min)

Here, you are required to play "Agree" / "Disagree exercise. Therefore, you need to follow your facilitator`s guidance to do this task. see the following " Agree" / "Disagree" statement (box 1) to make your point

Box1: Agree or Disagree Statements

- COCs cause cancer.
- The pill can cause deformity to the baby if a woman takes it for a long time.
- A woman can take any contraceptive method safely throughout her reproductive life
- You often need to encourage a woman to take injectable contraception or hide implants from her husband, so that she will not be forced by her husband to become pregnant
- Taking in to consideration Ethiopian culture, a woman should not use any contraceptive before marriage.
- Wide use of emergency contraception (EC) may encourage couples to have extra-marital sex and young girls to experience pre-marital sex, which are not supported by the community.

Box 3: Myths/rumors and facts about contraceptive pills

Myth: Women who stop taking the pill may not be able to get pregnant. They become infertile.

Fact: Most women who use a method of contraception, including the pill, can later get pregnant if they wish. The pill will not cause women to be infertile.

Myth: The pill causes cancer.

Fact: The pill does not cause cancer. In fact, the pill actually reduces the risk of getting certain cancers, such as endometrial and ovarian cancers.

Rumor: Oral pills build up in a woman's body. Oral pills do not build up in a woman's body.

Women need to rest from taking oral contraceptives on sex-free days.

Fact: Women do not need a rest from oral contraceptives. They have to take them every day,

Whether or not they are having sex that day.

Rumor: Oral contraceptives cause birth defects or multiple births.

Fact: Oral contraceptives do not cause birth defects or multiple births

Rumor: Oral contraceptives change women's sexual behavior.

Fact: Oral contraceptives do not change women's sexual behavior.

Rumor: Oral contraceptives accumulate in a woman's stomach.

Fact: Oral contraceptives do not collect in the stomach. Instead, the pill dissolves each day.

Enabling objective 3: Demonstrate the advanced skills how to provide effective FP counselling to the clients

Training methods: Brainstorming, role-play (60 min)

Brainstorming and role-play 1

You will be given different activities under this EO: Firstly, you are required to brainstorm the question below , secondly, to divide Your selves in to two groups to perform a role-play (Counseling for FP) according to the given case scenario (case of Wro Tuna). Your facilitator will assist you to make your performances effective. Strictly follow the instruction of your facilitator and act accordingly.

Q 1: From your experience how do you organize FP counseling? Who are your common targets for FP?

Q2: What are the common myths and rumors about FP methods in your community? How do you overcome this?

Fig. 2: Counseling for FP

Case Scenario for the role play

Wro Tuna, 38, comes to you to have FP method. This is her first time visit for FP services. After having more discussion with her, you realized that Wro Tuna was diagnosed for having malignant hypertension 5 years ago. Now, she wants to take oral pills for the rest of her reproductive life. Besides, she needs your help to convince her husband about her choice and about FP in general

Hint : There are a number of tools readily available to help counselling for FP. For this training purpose, however, please refer to the Standard counseling guide which is found in the "National Guideline for Family Planning Services in Ethiopia"; FMOH, October 2011. The following box provides insights to the approach of counselling

Note

Box 5: Overview of the stages of counselling for family planning

General counselling

The first contact usually involves counselling on general issues to address the client's needs and concerns. You will also give general information about methods, and clear up any mistaken beliefs or myths about specific family planning methods. All this will help the client in your village arrive at an informed decision on the best contraceptive method to use. During this session you would also give information on other sexual and reproductive health issues, like sexually transmitted infections (STIs), human immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS) and infertility.

Method-specific counselling

In method-specific counselling, you give more information about the chosen method. In this case, you can explain the examination for fitness (screening), and instruct on how and when to use the given method. You will also tell the client when to return for follow-up, and ask them to repeat what you have said on key information.

Return follow-up counselling

Follow-up counselling should always be arranged. The main aim of follow-up counselling is to discuss and manage any problems and side effects related to the given contraceptive method. This also gives you the opportunity to encourage the continued use of the chosen method, unless problems exist. Also use this opportunity to find out whether the client has other concerns and questions.

Steps in family planning counselling: See "National Guideline for Family Planning Services in Ethiopia"; FMOH, October 2011

Enabling objective 4: Demonstrate enhanced skill how to administer contraceptives to the client

Training method: role-play (90 min)

Role-play 2

Moreover, you will be instructed to be organized in four different groups and do other role-play on how to administer different FP methods as follow

Participants are required to demonstrate how to administer different methods of contraceptives to their clients. Four groups of 6 members will be formed to play the role of an UHE-P who provides (a) oral contraceptives (b) injectable contraceptives and (c) male condoms (d) referral service for long acting and permanent FP methods. Group a, b and c need to have all these products and perform their respective play based on their existing experiences while group (d) will based on the following case scenario (case scenario "x ") to perform its role-play.

Fig 4. A health professional providing a contraceptive

Case scenario" x"

During your visit to a household, suppose you find a 37-year-old married woman who has 5 children. She is sexually active but wants to stop bearing children and has decided to use a permanent FP method.

Note: see the following box and table (box 6 and Table 4) for the information on missed pill/s

Box 6: Rules for missed pills

ALWAYS:

1. Take a pill as soon as you remember

2. Take the next pill at the usual time. This may mean taking two pills on the same day or even at the same time

3. Continue taking active pill as usual, on each day

Table 5 Information kit for the providers for the missed pills

When pills are missed	How pills are missed	Follow the three rules in box 8 and instructions below
In the first 7 days	Start the pack two or more days late, or missed any two to four pills	Avoid sex or use additional contraception for next seven days
Days8–14	Missed any 2 to 4 pills	Follow the three 'Always' rules in box 8
Days15–21	Missed any 2 to 4 pills	Go straight to the next pack. Throw away inactive pills from 28-day pack (day 22- 28); don't wait seven days before starting a 21- pill pack.
In the first 3 weeks (day 1-21)	Missed five or more in a raw	Avoid sex or use additional contraception for next seven days. Go straight to the next pack. Throw away inactive pills from 28-day pack (day 22- 28); don't wait seven days before starting a 21- pill pack.

Figure 5: Different types of Contraceptive methods

UNIT THREE: MATERNAL AND NEWBORN HEALTH CARE

Unit description: This unit is developed using competence based training approach to help the trainees improve their knowledge, attitude and skills on how to describe major cause of and recommend interventions to reduce maternal morbidity and mortality. It also enhances the skills of the trainees to how to diagnose pregnancy and danger signs. In addition, basics of PMTCT, Nutritional screening and services, components of post-natal and new-born care are included in this unit.

Unit Objective: At the end of this unit participant will be able to identify, discuss and demonstrate skills on major causes of maternal and neonatal morbidity and mortality, pregnancy and danger signs of pregnancy, post-natal Care (PNC), nutritional screening, counseling and supplementation, adherence to PMTCT counseling, and essential new born care.

Unit specific objectives: By the end of this unit participants will demonstrate the required knowledge, attitude and skill to:

- Discuss the major cause of and recommend intervention to reduce maternal morbidity and mortality, and demonstrate skill to identify danger sign during pregnancy
- Detect pregnancy and danger sign.
- perform nutritional screening, counseling and supplementation for pregnant women
- Discuss basics of PMTCT service and provide adherence counseling service for HIV positive mother
- Discuss post-natal care components and provide home based PNC service
- Explain essential Newborn Care components and demonstrate related skills

Time:745 minutes

Session 1: Introduction to maternal and new born health

Session objective: By the end of this session the participant will demonstrate required knowledge attitude and skills to discuss the major causes of maternal and neonatal morbidity and mortality, recommend interventions to reduce morbidity and mortality, explain roles and responsibility to improve maternal and neonatal health services.

Enabling objectives: By the end of this session participants will be able to:

- Identify and discuss major causes of maternal morbidity and mortality
- Identify and discuss cause of neonatal morbidity and mortality.
- Explain the important interventions targeted to reduce maternal morbidity and mortality and demonstrate roles and responsibilities to improve maternal health services.

Time: 80 min

Enabling objective 1: Identify and discuss major causes of maternal morbidity and mortality

Enabling objective 2: Explain the important maternal health interventions and demonstrate roles and respon-

sibilities to improve maternal health services.

Training Method: Card exercise (30 min) and Buzz group discussion (20 min)

Your facilitator will ask you to play cards on major cause of maternal morbidity and mortality based on the following information and to discuss the high impact interventions in reducing maternal mortality.You need to follow your facilitator`s instruction to complete your activity.

Unsafe abortion	Eclampsia (Caused by dangerously high blood pressure)	Anemia during pregnancy
Malaria during pregnancy	Puerperal sepsis (Infection)	Postpartum hemorrhage (Bleeding after childbirth)
Obstructed labor	HIV/AIDS	Cardiovascular disease
Malnutrition	Tuberculosis	Diarrheal disease
Tetanus	Excessive vomiting during pregnancy	Sepsis

Note I

The five **major direct causes** of maternal mortality are:

- Unsafe abortion
- Eclampsia (caused by high blood pressure during the pregnancy)
- Prolonged Obstructed labor
- Ante partum (bleeding before birth) and Postpartum hemorrhage (bleeding after childbirth)
- Puerperal sepsis (bloodstream infection after childbirth)

Note 2

High impact interventions to reduce maternal mortality are those that are given around the time of birth including:

- Delivery service provided by a skilled health professional (Basic and comprehensive emergency obstetric care)
- Comprehensive abortion care
- Early PNC (within 24-48 hrs)

Other supportive interventions to reduce maternal mortality include:

- Family planning
- Focused antenatal care (FANC) – mention about quality of care and content (early initiation / < 16weeks/, frequency, focuses on: BP, Weight, urinalysis, blood group, Hgb, VDRL and RDT for malaria prone areas)
- Maternal Nutrition
- Appropriate exercise and rest
- Creation of women friendly environment attached to delivery room.

Note 3

Role of UHE-Ps to improve maternal and newborn health service

- Identification and proper documentation of pregnant mothers, infants, under five children;
- Prioritizing of households with pregnant mothers, infants, under five children and during house visit and provision supports as needed;
- Counselling of women on importance of FANC, PMTCT, institutional delivery, early PNC, nutrition, FP and essential newborn care, etc;
- Health education and pregnant women conference on the importance of MNH services;
- Preventive services – immunization and bed nets;
- Refer pregnant women for ANC, PMTCT and delivery service; and follow up after referral;
- Vitamin A supplementation for children aged 6 – 59 months semi-annually;
- Nutritional screening;
- Work with women developmental army for promotion of MNCH services at large in the community; and
- Organizing women's group to support each other.

Enabling objective 3: Identify and discuss cause of newborn morbidity and mortality.

Training methods: Group activity (10 min), case study (20 min)

Your facilitator will ask you to be in group and to discuss newborn morbidity and mortality based on the following case study (Lelise`s case). You need to follow your facilitator`s instruction to complete your group activity.

Case study

Lelise a 25 years old first time mother, has given birth at the nearby health center two days before. She was told that her baby weighted 2.7kg at the time of birth. When the UHEP goes to her house, her child was crying and Lelise was stressed because she couldn't breastfeed the child as she doesn't have enough milk. During assessment UHEP have found out that the child has a temperature of 39 degrees centigrade. Lelise told UHEP that the child was given some sugar water and her mother-in-law has put butter on the umbilical cord saying it would speed up the healing.

Note

The most common cause of neonatal morbidity and mortality are

- Prematurity- born before 37 week of pregnancy
- Low birth weight- born with weight less than 2.5kg
- Hypothermia
- Infection, and
- Birth asphyxia

Please note that common causes of morbidity and mortality among neonates are interrelated most of the time. Premature babies are most likely to have low birth weight and easily tend to loss body heat leading to hypothermia. If you suspect one of the above causes of neonatal morbidity, check to ensure the baby doesn't have the others. Manage all the causes immediately without delay and advice parents/caregivers on how to give proper care at home. Refer the neonate immediately if you cannot manage any of the above symptoms.

Proven interventions to reduce newborn morbidity and mortality include:

- Proper assessment and early resuscitation.
- Preventing infections – proper cord care is essential.
- Warming – kangaroo mother care is a cheap and effective way of providing warmth especially for premature and low birth weight neonates.
- Early breastfeeding in the first hour of birth.

Session 2: Focused Antenatal Care Service (FANC)

Session objective: by the end of this session the participant will able to identify, define, explain and demonstrate knowledge, attitude and skills on FANC and its schedule, birth preparedness, complication readiness, danger signs and STI screening.

Enabling objectives: By the end of this session participants will be able to:

- Discuss FANC service and explain how it is scheduled.
- Explain birth preparedness and complication readiness.
- Detect pregnancy and identify danger signs and symptoms during pregnancy.

- Provide Screening for STIs.

Time: 180 minutes

Enabling objective 1: Discuss FANC and explain how it is scheduled**.**

Training methods: Class activity (10 min)and case study (20 min)

For this EO, you will be asked to reflect on the following questions and case study (case of Ayenalem) . Therefore, you need to actively participate in the activities as per the instruction of your facilitator

Questions:

- What is the best time to start ANC follow up for a pregnant woman?
- How many ANC visits are essential throughout a pregnancy period?
- At what stage of the pregnancy must a woman see health professional regardless of her health status?

Aynalem is a 30 years old mother. She has one living child . She has missed her period for the last two months and suspects that she is pregnant but hasn't visited health facility yet to confirm. If you meet Aynalem at her home, what advice would you give her about ANC follow up?

Note

Definition of FANC

FANC is goal oriented ANC approaches that aims to promote the health of mothers and their babies through targeted assessments of pregnant women. FANC facilitates

Identification and treatment of already existing disease and conditions.

Early detection of complications and other potential problems that can affect the outcome of pregnancy.

Prophylaxis and treatment for anemia, malaria, STIs including HIV and urinary tract infection. Provision of tetanus toxoid vaccination as well as addressing other common diseases that may affect the outcomes of pregnancy.

Recommended Schedule for FANC	
Visit	timing of visit
First visit	before 16 weeks of pregnancy
Second visit	24-28 weeks of pregnancy
Third visit	30-32 weeks of pregnancy
Fourth visit	36-40 weeks of gestation

Enabling Objective 2: Discuss birth preparedness and explain complication readiness

Training methods: Role-play (40 min)

In order to do this activity, you will be asked to divide your selves in to four groups and perform a role-play based

on the following case scenarios (case scenarios # 1 and #2). Your facilitator will assist you to make your performances effective. Strictly follow the instruction of your facilitator and act accordingly.

Note

Definition of birth preparedness and complication readiness

Birth preparedness and complication readiness (BP/CR) is comprehensive packages aimed at promoting timely access to skilled maternal and new born services. It promotes active preparation and decision making for delivery by pregnant women and their families.

Birth preparedness: is the process of planning for a normal birth.

Complication readiness is anticipating the actions needed in case of an emergency.

Emergency planning is the process of identify and agreeing all the actions that need to take place quickly in the event of an emergency, and that the details are understood by everyone involved, and the necessary arrangements are made.

Birth preparedness:

Educate the mother and her family to recognize the normal signs of labor. Delivery may occur days or even weeks before or after the expected due date based on the date of the last normal menstrual period. Knowing what labor means will help the mother know what will happen, and this in turn helps her feel comfortable and assured during the last days or weeks of her pregnancy. Provide clear instructions on what to do when labor starts (e.g. in the event of cramping abdominal pain or leaking of amniotic fluid). Make sure that someone will call you or another skilled attendant for the birth as soon as possible. Support your verbal advice with written instructions in the local language.

Birth preparedness should cover:

- **Honoring her choices** - You should give all the necessary information about safe and clean delivery, but ultimately you should respect a woman's choice of where she wants to give birth and who she wants to be with during delivery.
- **Helping her to identify sources of support** for her and her family during the birth and the immediate postnatal period.
- **Planning for any additional costs associated with the birth**, preparing supplies for her care and the care of her newborn baby.

Birthing supplies the mother should prepare:

The birthing supplies that a pregnant woman and her family should be advised to prepare before the delivery are listed below:

- Very clean clothes to put under the mother and for drying and covering the newborn.
- New razor blade to cut the cord.
- Very clean and new string to tie the cord.
- Soap, a scrubbing brush and (if possible) medical alcohol for disinfection.
- Clean water for drinking and for washing the mother and your hands.
- Three large buckets or bowls.
- Supplies for making rehydration drinks, 'atmit' or tea.
- Flashlight if in case of power out or is no electricity in the area.

Complication readiness and emergency planning:

As noted earlier, complication readiness is the process of anticipating the actions needed in case of an emergency and making an emergency plan. Pregnancy-related disorders such as high blood pressure and bleeding can begin any time between visits for antenatal check-ups, and any other illness may occur during the pregnancy. If such conditions are suspected at any stage, you should refer the woman immediately, and repeatedly counsel her to report to you or seek medical care quickly if danger symptoms are seen.

Enabling objective 3: Detect pregnancy and identify danger signs and symptoms during pregnancy

Training method: Buzz group discussion (15 min), demonstration (30 min) and class exercise (15 min)

Your facilitator will ask you to discuss in pair about the sign and symptoms of pregnancy and invite few of the trainees to re-demonstrate procedure of detecting pregnancy through urine HCG testing. Note that your facilitator will do an initial demonstration on the procedure of pregnancy test. you need to follow the procedure attentively.

Next, you will be asked to work on the danger signs of pregnancy in plenary. You have to complete this activity using your own experience

Notes

Note 1: Signs and symptoms of pregnancy

The indications of pregnancy are generally classified into three groups:

- **The possible symptoms**: changes in her body that a woman can identify for herself and tell you about, which may mean she is pregnant. But they could also be caused by something else. You only have the woman's subjective report on which to base your diagnosis. However, at community level, the possible symptoms are often all the evidence that is available to you in the first three to six months.
- **The probable /presumptive signs and symptoms**: some of these indicators are reported by the woman, but you can also see them for yourself. There is also a pregnancy test that you may be able to conduct, or that could be done at the next level health facility.
- **The positive signs:** these are absolute proof of pregnancy, based on objective findings.

Note 2: How to detect pregnancy using HCG test

- To begin testing, open the sealed pouch by tearing along the notch after checking for expiry date. Remove the test from the pouch. **Note:** First morning urine usually contains the highest concentration of HCG and is therefore the best sample when performing the urine test. However, randomly collected urine specimens may be used.
- Holding the strip vertically, carefully dip it into the specimen (you may collect urine in a clean, dry container). Immerse the strip into the urine sample with the arrow end pointing towards the urine. Do not immerse past the MAX Line (Marker Line). Take the strip out after 10 seconds and lay the strip flat on a clean, dry, non-absorbent surface. (Note: In rare instances when dye does not enter the result area, dip the tip of the test strip in the urine as instructed above until the dye begins traveling across the white result area).
- Wait for colored bands to appear. Depending on the concentration of HCG in the test specimen, positive results may be observed in as little as 40 seconds. However, to confirm negative results, the complete reaction time of 5 minutes is required. It is important that the background is clear before the result is read. Do not read results after the specified reaction time.

INTERPRETATION OF RESULTS

Negative: Only one color band appears on the control region. No apparent band on the test region. This indi-

cates that no pregnancy has been detected.

Positive: Distinct color bands appear on the control and test regions. Presence of both test line and control line indicate presence of pregnancy. The color intensity of the test bands may vary since different stages of pregnancy have different concentrations of HCG hormone.

NOTE: A positive test line will appear directly below the control line on the same test surface (or 'result window' area). Any line or accumulation of color/dye that appears at the juncture between test components should not be mistaken for "test line" (this is only the source of the test reagent & dye).

Invalid: No visible band at all. The control band will not appear if an insufficient volume of specimen is added into the test kit. Proper procedures may not have been followed in performing the test. Repeat with a new test kit. Please consult above instructions and follow precisely.

Note: the above is a general instruction. Always read the instruction on the test strip package carefully before use. There could be some variation on how to apply the urine sample. However, the interpretation of the results is the same. The picture below shows the different types of test strips as an example and how the readings are interpreted.

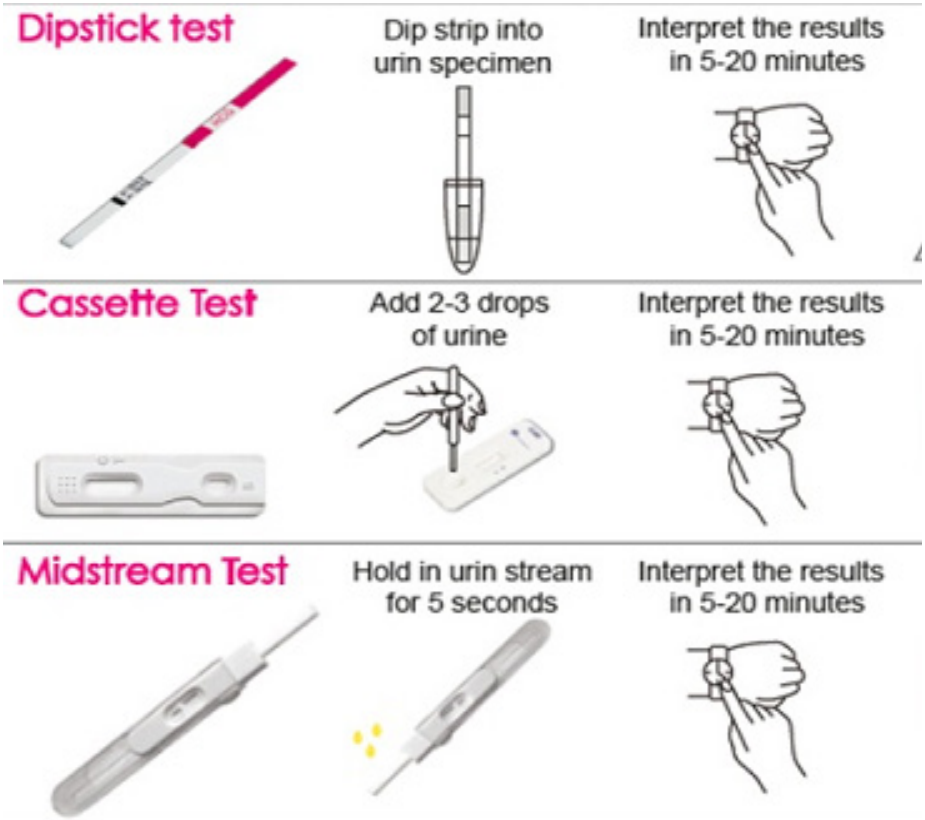


Figure 6: different ways of applying urine sample for HCG test

Positive test Negative test

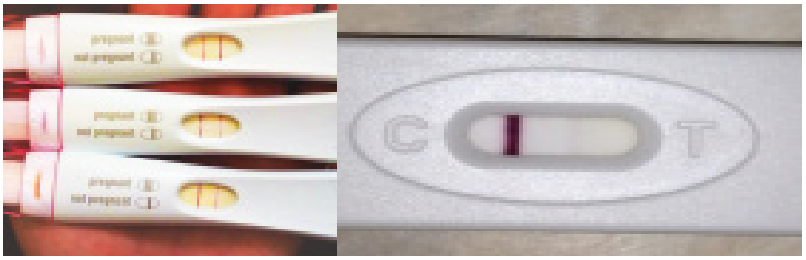


Figure7: Examples of HCG test results

Note 3: Danger signs during pregnancy

Danger sign is a serious condition that threatens the life of the mother or her unborn child or both. During every antenatal care visit, the UHE-p should ask if the pregnant woman has danger sign. If she has danger sign, the UHE-p should refer her immediately to the health center. If she does not have any danger signs, UHE-ps should counsel on the need to recognize danger signs and seek care immediately.

The following are the most important danger signs during pregnancy:

1. Vaginal bleeding
2. Severe abdominal pain
3. Fever
4. Headache, dizziness, or blurred vision
5. Convulsion or unconsciousness
6. Swollen hands and face

Role of UHE-ps in addressing danger signs during pregnancy:

- Create awareness to pregnant mother on what are danger sings observed during pregnancy and their possible implications.
- Advice mothers to early seek medical care whenever she observes these signs.
- As appropriate, accompany the mother to the health facility for intervention.
- Follow-up visits to maintain adherence to treatment and/or services.

Enabling objective 4: Provide counseling and screening for Sexually Transmitted Infection during pregnancy

Training methods: Class activity (20 min) and experience sharing (30 min)

You need to discuss the following question in plenary and share experiences on STI counselling among your teams. Your facilitator will help you reflect on the questions

Questions:

- What are the common sign and symptoms of STIs?
- Who should be considered most likely to acquire STI? Why?
- Why is it important to address the issue of STI during pregnancy?
- What information should be given to a pregnant woman about STI?

Note

Sign and symptoms of STIs:

- Pain or burning sensation during urination
- Heavy menstrual bleeding or bleeding between periods
- Itching (Anal or vaginal)
- Lower abdominal pain

- Vaginal discharge (Clear, white, greenish or yellow with strong odor)
- Pain during sexual intercourse
- Swollen lymph glands
- Rash following nerve ending lines
- Vaginal ulceration

With a consideration of the above sign and symptoms ask the following social and medical history

- Previous diagnosis of STI
- Sexual history
- Past general medical history
- Current medications
- Risk factors for the acquisition of HIV and STIs

see also Major Communicable Disease Module- AIDS/STI session

Session 3: Maternal Nutrition

Session objective: By the end of this training session, the participant will demonstrate required knowledge, attitude and skill on nutritional counseling and life cycle approach of nutritional interventions, explain special nutritional requirement for pregnant and lactating mother, conduct pregnant women nutritional screening using Mid Upper Arm Circumference (MUAC) measurement and supplement micro nutrients.

Enabling Objectives: By the end of this session, the participant will able to:

- Demonstrate nutritional counseling and life cycle approach of nutritional interventions and explain special nutritional requirement for pregnant and lactating mother.
- Conduct pregnant women nutritional screening using MUAC.
- Supplement micro nutrient and deliver appropriate message on nutritional supplementation.

Time: 135 minutes

Enabling Objective 1: Demonstrate nutritional counseling and explain life cycle approach of nutritional interventions and special nutritional requirement for pregnant and lactating mother.

Training Method: Class activity(15 min), Brain Storming (10 min) and role play (40 min)

You need to discuss the following question on maternal nutrition. Your facilitator will help you reflect on the points and show you the picture on nutrition at the lifecycle

- What is the importance of discussing about nutrition?
- What is nutrition in the lifecycle?
- What is intergenerational malnutrition cycle?
- What is the significance of maternal nutrition during pregnancy?

- Some pregnant women feel nauseated and do not want to eat food. How can we ensure their required food intake?

- Many families cannot afford to buy enough food or wide variety of food? What do you advice in that circumstance?

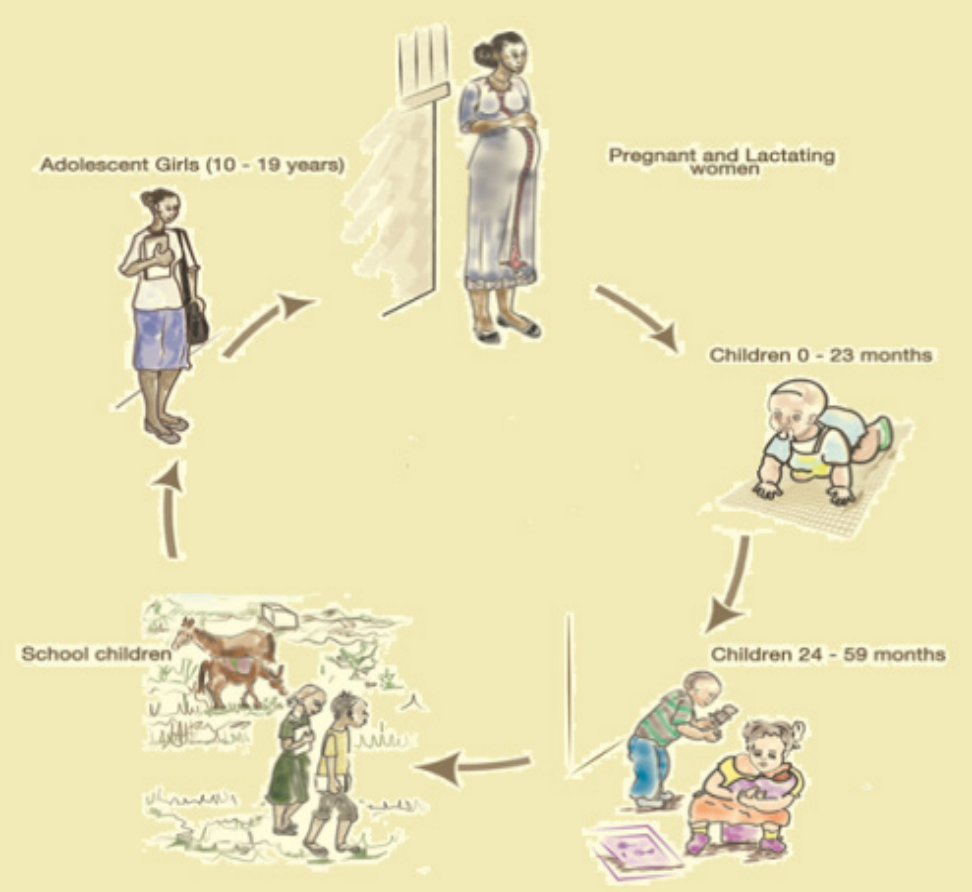


Figure 8: Nutrition in a lifecycle

Note

The following points explain nutrition in the lifecycle and the intergenerational malnutrition cycle

- Nutrition in the lifecycle is addressing the nutritional need of individual throughout the life cycle including pregnancy, childhood, adolescences, adulthood and old age.
- A stunted adult has some functional limitations compared to a taller one (referring to direct effects of small size)

- Stunted women result in intra-uterine growth retardation (inter-generational cycle of stunting).
- Stunted adults have a reduced working capacity (perpetration of poverty in labor-intensive societies).
- Growth catch-up is possible in later childhood with sustained improvement in living conditions.
- Children, who remain in poor living condition, in which they became stunted, experience little or no catch-up in growth later in life.
- Mental and cognitive impairment are often permanent and irreversible after the age of 24 months.
- Stunting commonly occurs during fetal life, and soon after birth up to until the second year of life (the first 1000 days of life).
- This critical period is equivalent to first 1000 days of life = *270 days (9 months of pregnancy) + 365 days (1st year of life) + 365 days (2nd year of life).*

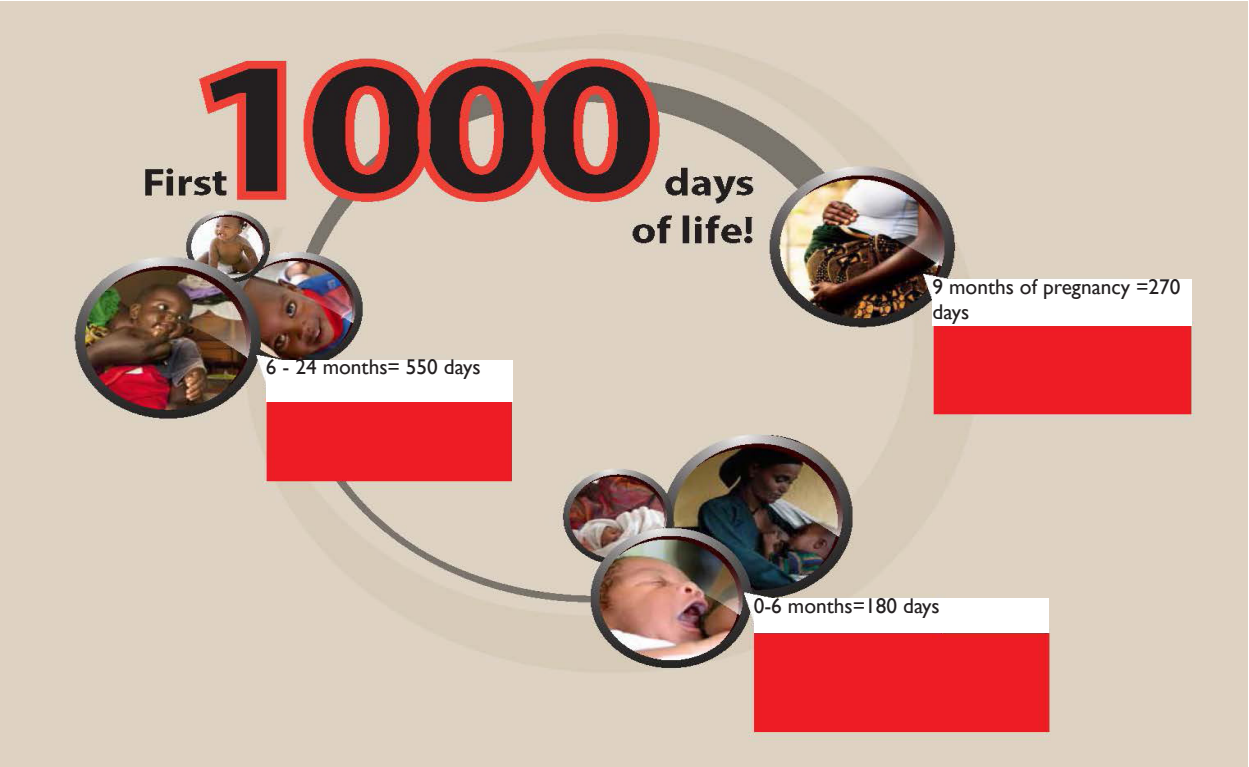


Fig. 9: description of the first 1000 days of life

Adolescent Girls (10-19)

- The second window of opportunity, to break the intergenerational malnutrition cycle of Pregnancy
- Most of the stunting/under nutrition status started during intrauterine period
- Eating diversified foods and one extra meal during pregnancy period.
    - Helps a woman resist illness during her pregnancy and after the birth
    - Keeps a woman's teeth and bones strong
    - Gives a woman strength to work
    - Helps the baby grow well in the mother's uterus
    - Helps a mother recover her strength quickly after the birth
    - Supports the production of plenty of good quality breast milk to nourish the baby.

Next you are required to do a role play based on the following scenarios (scenarios 1and 2). Follow your facilitator`s instruction to complete your activity

Scenario 1:

W/ro Azeb is 3-months pregnant women. It is her first pregnancy and because of nausea her appetite has decreased significantly. Since she is government employee and her husband is merchant, relatively they are financially better-off. As a result of low intake of food she is excessively tired and could not accomplish here routine office work.

Scenario 2:

W/ro Genet, who is 32 years, is living in peri- urban kebele of Hawasa town. They have small farmland and four children. Currently W/ro Genet is 28 weeks pregnant and did not make any change on her dietary intake. Besides, working on the small farm land her husband sometime goes to the town and work as daily laborer and earn additional money

Enabling Objective 2: Conduct pregnant women nutritional screening using MUAC

Training Method: Brainstorming (10 min) and demonstration (20 min)

The participants will be asked to respond to the following question. Accordingly, each of you have to contribute. see the below table (Table 6) to conceptualize your learning. Finally, you can be asked to demonstrate how to assess maternal nutrition using MUAC measurement

Question: What methods of nutritional screening do you know for pregnant and lactating mothers?

Table 6: Nutritional assessment

Assessment	What to Ask or Measure
Nutrition history	• Dietary intake (frequency, quantity and diversity) • Eating habits (dieting, craving, food myths & taboos) • Food intolerance and dislikes • Fatigue and physical activity • Nausea, vomiting • Availability of clean and safe water • Sanitation and hygiene practices in food preparation and handling (personal hygiene, food preparation and handling) • Daily intake of iron and folic acid supplements • Use of iodized salt

Physical Assessment	**Anthropometric measurements:** • Height • Pre-pregnancy weight • Weight gain during pregnancy • MUAC **Other physical features** • Edema • Pallor (palm, tongue, conjunctiva) • Goiter
Medical history	As per the national ANC guideline
Lab investigation	As per the national ANC guideline
Micronutrient control	Provide iron folic acid to prevent anemia on confirmation of pregnancy Treat anemia in confirmed cases Provide albendazole during 2nd or 3rd trimester

Note

A woman at pre-conception is considered underweight when the MUAC reading is < 21cm. A pregnant or lactating woman whose MUAC is less than 23.5cm are considered to be underweight.

Enabling objective 3: counsel and Supplement micro nutrient to pregnant mothers

Training Methods: Brainstorming (10 min), gallery walk (10 min), and case study and discussion (20 min)

You will be asked to discuss the following question and to categorize micronutrients by their importance and source (see table 7). respond to the questions based on you facilitator`s instruction

Table 7: Micronutrients by source and benefits

List of Vitamin & minerals	Why important	Source
Iron	Production of red blood cells by the fetus, the mother needs more iron as blood volume increases during pregnancy.	Organ meat, red meat, grains and legumes.
Iodine	For the fetal brain development, proper metabolism.	Iodide salt and dark green vegetables.
Folic acid	Proper fetal formation especially at earlier period of pregnancy.	Organ meat, milk and dairy products and citrus fruits such as orange

Case study and discussion

you will be asked to discuss the following question based on the case study (Kedija`s case)

- What would you advise kedija in this context?
- What will happen if no one addresses kedija's concerns appropriately?

Kedija is 29-year-old pregnant women who care for her unborn baby. Her husband is giving her all round support she needs. She is attending routine antenatal care visit at one of the health center and received two tetanus toxoid vaccine. At the health center she was provided with iron folate tablet free of charge and was advised her to take one tablet on daily bases. Recently she is experiencing nausea, epigastric pain, and difficulty of passing stool and change in her stool color. While she shares her problem one of her friends told her that iron tablet is the cause of the problem. Finally, kedija decided to quit taking the iron tablet.

Note

The iron pills may cause nausea, make it hard for the woman to pass stool (constipation), and her stool may turn black, but it is important for the woman to keep taking the iron pills because anemia can cause complications during pregnancy, during delivery, and after the baby is born. It is helpful for the woman to take the iron pill with a meal, drink plenty of fluids, and eat plenty of fruits and vegetables to *avoid* nausea and constipation. The black color of the stool is side-effect from the iron but is not harmful.

Session 4: Prevention of Mother to Child Transmission (PMTCT)

Session objective: By the end of this session participant will be able to discuss components of PMTCT, provide adherence counseling and counseling on breast feeding and FP for HIV positive mother.

Enabling objectives: By the end of this unit participants will demonstrate the required knowledge, attitude and skill to:

- Explain methods of PMTCT
- Provide adherence counseling
- Counsel about breast feeding
- Counsel about FP for HIV positive mothers

Time: 120 minutes

Enabling objective 1: Discuss methods of PMTCT

Training Method: Group activity (20 min)

In order to fulfill this EO, you will be asked to group your selves and discuss risk of HIV- MTCT based on the information given below (Tables: 8,9) including you role to prevent such risks. After completing your work, you need to compare your response with tables 10 & 11. Follow your facilitator`s instruction.

Table 8: Estimated risk of MTCT

Timing	Transmission rate without intervention
During pregnancy	
During labor and delivery	
During breastfeeding	

Table 9: National strategies for PMTCT

Activity	National strategy
Primary prevention of HIV infection	
Prevention of unintended pregnancies among HIV- positive women	
Prevention of HIV transmission from infected women to their infants	
Treatment, care, and support of HIV-positive women and their infants and families	

Note:

Table 10: Estimated risk of MTCT

Timing	Transmission rate without intervention
During pregnancy	5-10%
During labour and delivery	10-15%
During breastfeeding	5-20%

Table 11: National Strategies for PMTCT

Activities	National strategy	UHE-P`s role
Primary prevention of HIV infection.	- Explain the Abstain, Befaithful, or Condom approach to protect reproductive-age people from becoming infected with HIV and other STIs. - Provide voluntary counselingand testing services following the National HIV Counselingand Testing Guidelines. - Promote correct and consistent use of condoms. - Early diagnosis and treatment of STIs.	- Provide counseling for all pregnant women - Refer to appropriate health facility when need arises
Prevention of unintended pregnancies among HIV-positive women.	- Integrate family planning counselingat potential PMTCT and VCT service sites.	- Provide appropriate FP planning for all HIV positive women and refer to services

Prevention of HIV transmission from infected women to their infants.	- Ensure availability of antiretroviral drugs and other appropriate supplies for PMTCT. - Provide counseling services integrated with ANC, labor, and delivery and postnatal care. - Safer obstetrical practices. - Provide appropriate counseling on infant feeding and support. - Promote exclusive breastfeeding.	
Treatment, care, and support of HIV-positive women, and their infants and families	- Provide pregnant women ART. - Ensure appropriate follow-up of infants born to HIV-positive women including: OI prophylaxis and early infant diagnosis. - Provide HIV testing for family. - Link PMTCT with care and support initiatives organized for infants and HIV- positive women	

Note

Prevention of Mother-To-Child Transmission of HIV:

Mother-to-child transmission (MTCT) is the transmission of HIV from an infected pregnant woman to her infant. The more technical term for MTCT is *vertical transmission* or *perinatal transmission.* The majority of children infected with HIV acquire the virus through MTCT.

MTCT of HIV occurs during pregnancy (ante partum transmission), during labor and delivery (intra partum transmission), and through breastfeeding (postnatal transmission). Children also can become infected with HIV through the same modes as those by which adults are infected (exposure to contaminated blood or other body fluids, e.g., through transfusions of infected blood products, through contact with needles or other instruments contaminated with infected blood or other body fluids, and through sexual abuse).

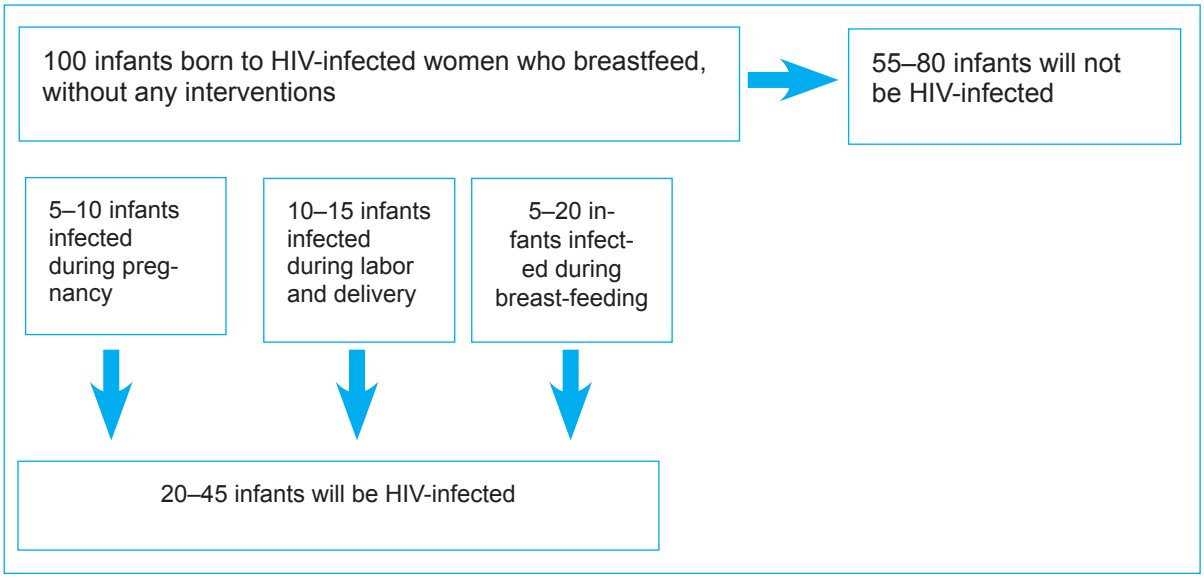


Fig. 10: Outcomes of Infants Born to HIV-Infected Women without Preventive Measures

Reducing HIV infection in infants and young children requires a comprehensive approach that comprises the four prongs listed below:

Activity 1: Primary prevention of HIV infection

Activity 2: Prevention of unintended pregnancies among HIV-infected women

Activity 3: Prevention of HIV transmission from HIV-infected women to their offspring

Activity 4: Provision of care and support to women infected with HIV, their infants, and their families.

Activity 1: Prevention of Primary HIV Infection

The ideal way of preventing children from HIV infection is prevention of the parents-to-be from HIV infection. Decreasing the number of mothers who are becoming HIV-infected is the most effective way of reducing MTCT. All efforts should be made to involve men in primary prevention intervention.

Primary prevention strategies include the following components:

This approach has come to be known as the "ABC" approach:

A = **A**bstinence

B = **B**e faithful—Be faithful to one HIV-uninfected sexual partner (known serostatus)

C = **C**ondom use—Use condoms correctly and consistently

- Promote safer and responsible sexual behavior and practices
- Provide access to condoms
- Provide early diagnosis and treatment of sexually transmitted infections
- Make HIV testing widely available
- Provide suitable counseling for HIV-negative women

Activity 2: Prevention of Unintended Pregnancies among HIV-Infected Women

Unintended pregnancy is largely preventable and effective family planning counseling and service is important to help HIV-infected women prevent unintended pregnancies and space births. It can also help women who are HIV-infected protect their own health while taking care of their families. The cost of infection and child deaths averted through family planning is substantially less than the cost of child death averted through the third and fourth activities of PMTCT. (WHO/CDC, January 2008)

Activity 3: Preventing HIV Transmission from HIV-Infected Women to their Infants

Specific interventions to reduce HIV transmission from an infected woman to her child include initiation and maintenance of ART (specific combination to be taken once daily), safer childbirth practices, Provision of ARV prophylaxis for the newborn/ baby and safer infant feeding practices. When an ART is given to the mother and ARV prophylaxis is given to the infant to prevent MTCT, it is referred as Option B+ PMTCT intervention. Here the mother who started ART at pregnancy will continue for life, which benefits the baby and her own health also.

Activity 4: Provision of Care and Support to Women Infected with HIV, their Infants, and their Families

The comprehensive care of all people living with HIV/AIDS, including HIV-positive women and their exposed or HIV-positive infants and children with her spouse is the fourth prong of PMTCT. The provision of care and support to HIV-infected and affected families paves the way for decreasing the stigma and discrimination associated with the HIV/AIDS.

Enabling objective 2: Provide counseling for HIV positive mothers to enroll and adhere to PMTCT services

Training Method: Role play (40 min)

Your facilitator will divide you in to four groups and assign individuals within the group to assume the role of UHE-p, HIV positive pregnant mother and observer. Based on the following Scenarios (Scenario 1, 2, 3 and 4) you need to prepare a role- play for your group. your facilitator would assist you to complete your activity.

Scenario 1: HIV positive pregnant sex worker who started PMTCT but defaulted.

Scenario 2: HIV positive pregnant unmarried adolescent girl who doesn't start PMTCT services.

Scenario 3:HIV positive pregnant married woman who knows that she got HIV from her husband. She is very upset and has no interest to seek medical help.

Scenario 4:HIV positive pregnant married woman who starts PMTCT services without the knowledge of her husband.

Note

Adherence:

Adherence is defined as a patient's ability to follow a treatment plan, take medications at prescribed times and frequencies, and follow restrictions regarding food, behavior, and other medications.

How much adherence is required for successful therapy?

- Goal of Highly Active Anti-Retroviral Treatment(HAART) = maximal and durable viral suppression (undetectable levels)
- Successful HIV therapy requires adherence > 95%
- Failure rates increase sharply as adherence decreases

Forms of non-adherence:

- Missing one dose of a given drug
- Not observing the intervals between doses
- Not observing the dietary instructions

Consequences of poor adherence:

- Incomplete viral suppression
- Continued destruction of the immune system-CD4 cell counts
- Disease progression
- Emergence of resistant viral strains
- Limited future treatment options
- Higher costs to the individual and ARV program

Factors affecting adherence:

- Patient/provider relationship
- Disease characteristics
- Clinical settings
- Treatment regimen
- Patient variable

1. Patient factors:

- **Socio-demographic factors**:
  - ✓ Gender
  - ✓ Ethnicity
  - ✓ Age
  - ✓ Employment
  - ✓ Income
  - ✓ Education and literacy
- **Psychosocial factors**:
  - ✓ Active drug or alcohol use
  - ✓ Degree of social support
  - ✓ Social stability
  - ✓ Depression and other psychiatric illnesses

2. Patient/provider relationship:

The patient/provider relationship has an important role in improving adherence to prescribed medications in chronic disease and is believed to be a motivating factor for adherence to HAART. Trust and confidence in providers has been found to influence adherence positively.

3. Disease characteristics:

Prior opportunistic infections (OI) contribute to increased adherence. Patients who have had serious opportunistic infections may perceive their illness to be severe and adhere better to their treatment.

4. Treatment regimen:

- The higher the pill burden, the lower the adherence.
- When patients experience treatment side effects, they tend to stop treatment or take it irregularly. Common side effects include:
  - Diarrhea, fatigue, nausea, and vomiting; peripheral neuropathy, physical changes in body appearance, metabolic changes.

5. Clinical settings:

A friendly, supportive, and non-judgmental attitude of health care providers, including UHE-ps, convenient appointment scheduling, and confidentiality contribute to better adherence.

Adherence counseling needs:

- Knowledge
  - Infections, CD4 counts
  - Medications and side effects
- Attitudes
  - Positive belief and perceptions
  - Self-efficacy and commitment
- Practices and support systems
  - Disclosure to buddies, family
- Identifying and addressing barriers
- Integrating treatment regimen into patient daily routine
- Providing reminder cues

Enabling objective 3: Counsel breast feeding

Training Methods: Group discussion (40 min)

You will be asked to be divided in to two groups and debate on feeding options (Breast feeding vs formula feeding) of infants who born to HIV positive mothers. your facilitator can assist the discussion.

Note:

***Counseling the HIV-positive mother about feeding her baby*:**

Mothers who are HIV-positive and their babies need special care before, during and after labor and delivery. Therefore, if the mother is counseled and HIV-tested before or during pregnancy, and she knows that she is HIV positive, you should try to convince her to deliver her baby in a health facility. That way she and her baby will get special care from health professionals with special training in delivering babies from HIV-positive mothers, and preventing maternal to child transmission (PMTCT of HIV).

In the postnatal period, she may need to take antiretroviral (ARV) drugs prescribed for her by the HIV clinic, and your support is vital in helping her to keep to her drug regimen. Maintain confidentiality about her status and conduct frequent visits to this woman as she may require a lot of psychosocial support immediately after the delivery. If it is available link her with the community social support group. Always make sure her partner is counseled and HIV-tested and also involved in the whole care process.

Breast milk or formula?

In this study session our focus is on the risk of HIV being transmitted from the mother to her newborn baby in her breast milk, and how you can support and counsel her about feeding options. If 20 HIV-positive mothers breastfeed their HIV-negative babies exclusively for the first six months, on average one to three of the babies will become infected with HIV through its mother's breast milk. So the mother has a difficult choice to make. She has to balance the risk to her baby from HIV transmission during breastfeeding, against the risk of not breastfeeding and losing all the benefits described above. Formula feeding also exposes the baby to increased risk of infection from unsterilized bottles and malnutrition from incorrectly made feeds.

Replacement feeding and the AFASS criteria

Exclusive breastfeeding is NOT recommended for the babies of HIV-positive women, since the only way to protect the baby completely from HIV transmission from its mother is to feed it on formula milk. This is known as

replacement feeding. However, many families cannot afford to buy milk formula to feed the baby, and bottle feeding may be socially unacceptable in some communities. With all these issues in mind the World Health Organization (WHO) has set the following criteria (known as the AFASS criteria), which need to be met before counseling an HIV-positive mother to use formula milk:

- ***A**cceptable:* Replacement feeding for breast milk is acceptable by the mother, the family and others who are close to the family.
- ***F**easible:* The mother has access to clean and safe water for cleaning the feeding bottles, teats, measuring cup and spoon, and diluting the formula milk if it comes as a powder.
- ***A**ffordable:* The family can afford to buy enough formula milk or animal milk to feed the baby adequately.
- ***S**ustainable:* The mother is able to prepare feeds for the child as frequently as recommended and as the baby demands.
- ***S**afe:* The formula milk should be safe and nutritious for the health of the baby.

The AFASS criteria are illustrated in the figure below. When replacement feeding fulfils the AFASS criteria, avoidance of all breastfeeding by HIV-positive mothers is recommended.

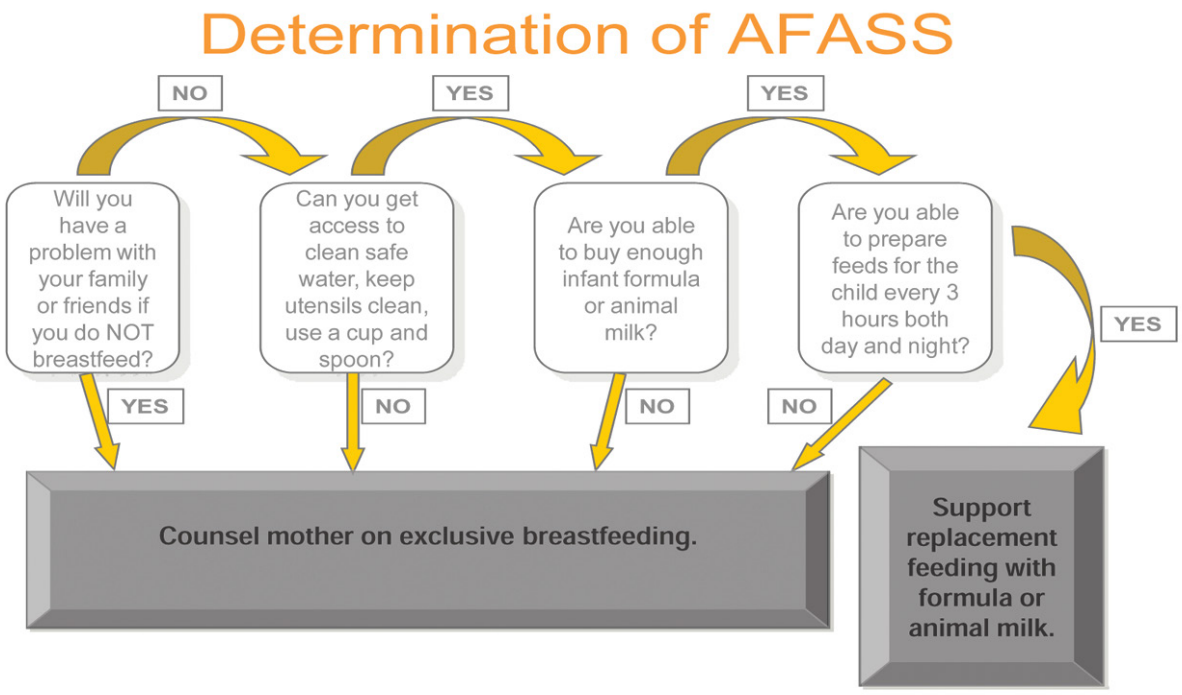


Fig.10: The AFASS criteria help you to counsel HIV-positive mothers about feeding options for their newborns. (Source: Ethiopian Federal Ministry of Health, based on WHO, 2010, Guidelines on HIV and Infant Feeding)

Reducing the HIV risk from breastfeeding

If replacement feeding is rejected by the HIV-positive mother, for whatever reasons, there are some things that she can do to reduce the risk of HIV transmission during breastfeeding. Counsel her to:

- Keep the intervals between breast feeds as short as possible (no longer than three hours) to avoid accumulation of the virus in her breast milk.
- If she develops a bacterial infection (mastitis) of the breast, or she has a cracked nipple, stop feeding from the infected breast and seek urgent treatment.
- Check the infant's mouth for sores and seek treatment if necessary.

- Make a transition to replacement feeding if her circumstances change and she can meet the AFASS criteria.

At six months, if replacement feeding is still not acceptable, feasible, affordable, sustainable and safe, counsel her to continue breastfeeding, but with additional complementary foods. All breastfeeding should stop once a nutritionally adequate and safe diet without breast milk can be provided.

Enabling objective 4: Counsel Family Planning for HIV positive mothers

Training Methods: Group play (20 min)

You are required to discuss on the issues of providing FP to HIV positive woman. This activity will provide you an opportunity to explore your knowledge and attitude with regard to the FP options for HIV positive women

Statements for agree –disagree exercise:

1. Like any other women in the reproductive age, women living with HIV have the right to decide on her fertility related issues.

2. There are family planning options that are specifically forbidden for women living with HIV.

3. All HIV positive women should be avoiding sexual intercourse if they want to avoid unwanted pregnancy.

4. Barrier methods of family planning are recommended for HIV positive women with discordant result with her husband.

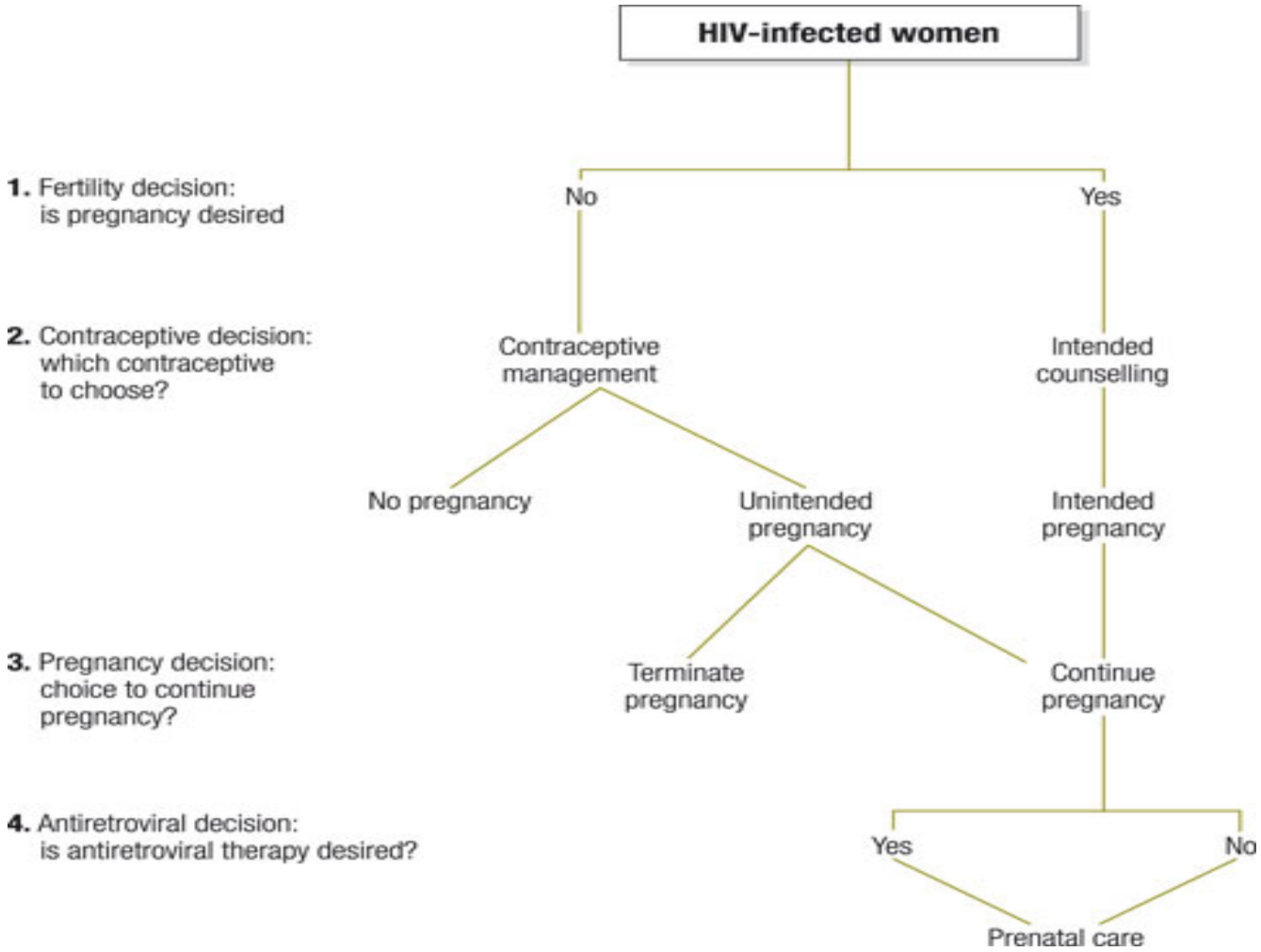
5. HIV positive women should be blamed if they become pregnant knowing the risks of transmission**.**

6. It is the irresponsibility of HIV positive woman wanting to have more children**.**

Note:

Effective linkages between the sexual and reproductive health and the HIV fields are essential to ensuring the reproductive rights of people living with HIV. All women, including those with HIV, have the right "to decide freely and responsibly on the number and spacing of their children and to have access to the information, education and means to enable them to exercise these rights".

The sexual and reproductive decisions faced by women with HIV involve their desire for pregnancy, their contraceptive practices, their choices about an unintended pregnancy, and their prenatal and postnatal options to reduce prenatal transmission of HIV.



For women with HIV, linkages between the sexual and reproductive health and HIV fields can maximize the opportunities to address four distinct reproductive possibilities:

- if a woman does not wish to become pregnant, she should be referred to or offered family planning services;
- if she wishes to become pregnant, she should be educated about the local fertility and prenatal services, the types of treatment available to reduce the risks of transmission to her child and, if in a sero-discordant relationship, HIV prevention approaches to minimize the risk of infection transmission to a partner when trying to conceive;
- if she is currently pregnant and wishes to continue her pregnancy, she should be offered the opportunity to obtain antiretroviral therapy to reduce HIV transmission risks; and
- if she is currently pregnant but does not wish to continue her pregnancy, she should be referred to safe abortion services. Postpartum contraception could be offered as an option for those who do not wish to become pregnant again.

Regardless of HIV status, increasing access to sexual and reproductive health services will not only offer women more control over their reproductive lives and help them safely achieve their desired fertility, but also will produce major public health benefits on maternal and infant morbidity and mortality. Voluntary contraceptive services, in particular, will benefit the health of women and infants in a variety of ways by delaying first births, lengthening birth intervals, reducing the total number of children born to one woman, preventing high-risk and unintended pregnancies, and reducing the need for unsafe abortion.

For those who are living with HIV, linking the sexual and reproductive health and HIV fields further enhances

the public health impact by preventing pregnancies in women with HIV who do not wish to become pregnant. This in turn can reduce the number of infants born with HIV and the number of children orphaned due to AIDS. Indeed, prevention of unintended pregnancies in HIV-positive women is one of the four strategic elements recommended by WHO and its United Nations partners for PMTCT.

Session 5: Delivery and post-partum care

Session objective: by the end of this session participant will be able to identify, discuss and demonstrate skills on danger signs during labor, delivery and postpartum period.

Enabling objectives: by the end of this session participants will demonstrate the required knowledge, attitude and skill to

- Identify danger signs during labor, delivery and postpartum periods
- Discuss components of essential postpartum care
- Provide postpartum care during home visit

Time: 110 minutes

Enabling objective 1: Identify danger signs during labor, delivery and postpartum periods

Training Methods: Brainstorming (10 min), Group discussion and experience sharing (30 min)

You will start this session by discussing on normal and complicated labor and share your experiences of practice based on the following questions

- what are the characteristics of normal and complicated labor.
- . Have you ever come across a mother in labor in the community?
- If yes, what was the situation? What measure have you take? What support have you provided to the mother? What was the outcome of the labor? How was the status of the mother and the fetus after that incident?
- What were the key challenges you have faced at the time?
- If no, what would you do if you encounter a woman in labor while you are doing the routine household visits? How confident are you in providing support for a laboring mother?

Note:

Normal labor:

A normal labor has the following characteristics:

- Spontaneous onset (it begins on its own, without medical intervention)
- Rhythmic and regular uterine contractions
- Vertex presentation (the 'crown' of the baby's head is presented to the opening cervix,
- Vaginal delivery occurs without active intervention in less than 12 hours for a multi-gravida mother and less than 18 hours for a primi-gravida (first birth)
- No maternal or fetal complications.

Any type of labor that deviates from these conditions is considered abnormal, and usually requires referral for specialist care.

How do you know that true labor has begun?

True labor is characterized by regular, rhythmic and strong uterine contractions that will increase progressively and cannot be abolished by anti-pain medication. Pain symptoms may be relieved a little if the woman takes pain-killing drugs, but true labor will still progress.

What is adequate uterine contraction?

If true labor is progressing, there will be adequate uterine contraction, evaluated on the basis of three features — the frequency, the duration and the intensity of the contractions:

- The frequency of uterine contractions will be 3-5 times in every 10 minutes period.
- Each contraction lasts 40–60 seconds; this is known as the duration of contractions.

The woman tells you that her contractions feel strong; this is the intensity of contractions.

Show and leakage of amniotic fluid

During most of the pregnancy, the tiny opening in the cervix is plugged with mucus. In the last few days of pregnancy, the cervix may begin to open. Sometimes the mucus and a little bit of blood drip out of the vagina. This is called show. It may come out all at once, like a plug, or it may leak slowly for several days. When you see the show, you know that the cervix is softening, thinning and beginning to efface (open). Be careful not to confuse the show with the normal discharge (wetness from the vagina) that many women have in the two weeks before labor begins. That discharge is mostly clear mucus and is not colored a little bit red with blood.

True labor may be spontaneously established with or without show and with or without leakage of amniotic fluid (the waters in the fetal membranes surrounding the baby). In many parts of Ethiopia, people think that labor is not progressing if they don't see leakage of amniotic fluid either before or after labor begins. This is not true. You should be clear that show and leakage of amniotic fluid are not required for labor to begin or progress.

Helping the mother recognize a true labor:

There is no way to be sure when a woman's labor will begin, but there are some signs that it will start soon. Babies often drop lower in the mother's belly about 2 weeks before birth, which is known as lightening; commonly, mothers feel that the baby is no longer lying 'high' in the abdomen, and not pushing her stomach upwards. If she has had babies before, this baby may not drop until labor begins.

Other signs may happen only a day or two before labor starts. The mother's stool may change, or a little show (bloody mucus) may come out of the vagina. Sometimes, the bag of waters leaks or breaks (premature rupture of fetal membranes — PROM) before labor begins.

Tell her that true labor is:

- Regularly and progressively increasing pushing-down pain, which happens about 3-5 times in every 10 minutes. (Check whether she knows or can estimate how long 10 minutes is).
- Characterized by a pushing down pain, which is usually felt first in her lower back and moving around to the front in the lower abdomen below her belly button.

Demonstrate on her abdomen:

- What will happen due to lightening
- Where she will feel the abdomen is hard during contractions
- Where she will feel the maximum pushing-down pain.

Stages of labor

First stage of labor

The first stage of labor is characterized by progressive opening of the cervix, which dilates enough to let the baby out of the uterus. For most of the pregnancy, nothing can get in or out of the cervix, because the tiny opening in it is plugged with mucus. Each time the uterus contracts, it pulls a little bit of the cervix up and open. Between contractions, the cervix relaxes. The first stage is divided into two phases: the latent and the active phase, based on how much the cervix has dilated.

Latent phase

The latent phase is the period between the start of regular rhythmic contractions up to cervical dilatation of 4 cm. During this phase, contractions may or may not be very painful, and the cervix dilates very slowly. The latent phase ends when the rate at which the cervix is dilating speeds up (it dilates more quickly). This signals the start of the active phase.

Active phase

The active phase is said to be when the cervix is greater than 4 cm dilated.

Contractions become regular, frequent and usually painful. The rate of cervical dilation becomes faster and it may increase in diameter by as much as 1.2 to 1.5 cm per hour, but the minimum dilation rate should be at least 1 cm per hour.

Cervical dilatation continues until the cervix is completely open: a diameter of 10 cm is called fully dilated. This is wide enough for the baby to pass through. At this diameter, you would not feel the cervix over the fetal head when you make a vaginal examination with your gloved fingers.

Second stage of labor

The second stage begins when the cervix is fully dilated (10 cm) and is completed when the baby is completely born. After the cervix is fully dilated, the mother typically has the urge to push. Her efforts in 'bearing down' with the contractions of the uterus move the baby out through the cervix and down the vagina.

Third stage of labor

The third stage of labor is the delivery of the placenta and membranes after the baby has been born. The duration is usually a maximum of 30 minutes.

Fourth stage of labor

The first four hours immediately following placental delivery are critical, and have been designated by some experts as the fourth stage of labor. This is because after the delivery of the placenta, the woman can have torrential vaginal bleeding due to failure of uterine contractions to close off the torn blood vessels where the placenta detached from the uterine wall..

The placenta, membranes and umbilical cord should be examined for completeness and for abnormalities. Maternal blood pressure and pulse should be recorded immediately after delivery and every 15 minutes for the first four hours. Normally, after the delivery of the placenta, the uterus will become firm due to sustained contraction, so the woman might feel strong contractions after the birth. Reassure her that these contractions are healthy, and help to stop the bleeding.

Enabling objective 2: Discuss components of essential postnatal care

Training Method: Role-play (40 min)

Now, you are asked to be in group and do a role play on how to counsel mothers in post natal period based on the following scenarios (scenarios 1, 2 and 3). Follow your facilitator`s instruction to complete your activity

Case scenario 1: Tamirnesh is a primi-gravida mother who delivered three weeks ago in the nearby health facility. She has started breast feeding immediately after birth with the support of her mother-in-law. After breast feeding for a couple of weeks, she started to experience severe pain on both of her breasts. She experienced excruciating pain whenever the baby sucks milk.

Case scenario 2: Almaz delivered a 2.8 kg baby at home a day before with the support of a traditional birth attendant. She had delivered her previous child at home with no complications. Immediately after delivery, she experienced a heavy bleeding with clot. She complained of having tearing kind of pain in her abdomen which was unbearable to cope with. She feels dizziness and palpitation whenever she tries to stand from her bed.

Case scenario 3: Kebebushdelivered her baby two weeks back when she was 38 weeks of gestational age. Two days after delivery, she started experiencing back ache which started from the middle of the abdomen and descends down to the umbilical area and to the pelvis. She had severe headache accompanied with high grade fever. She feels tired whenever she tries to perform minor activities at her home.

Enabling objective 3: Explain post-natal care services with correct timing of home visit.

Training Methods: Group exercise (30 min)

The purpose of this exercise is to help you correctly identify the basic PNC services along with the timing of home visits.You will be asked to be in group and work on the services to be provided to a mother during PNC period

Note: For further information see table 12

Table 12:List of services given during postnatal period

Postnatal service	Timing
Vaccinate the baby for polio and BCG	1st visit
Check for vaginal bleeding	1st visit
Advise on baby bating	1st visit
Counseling on family planning	1st visit, 2nd and 3rd visit
Counseling on cord care	1st visit
Check for maternal temperature	1st visit, 2nd and 3rd visit
Advising on exclusive breast feeding	1st visit, 2nd and 3rd visit
Advising on nutrition and hygiene	1st visit, 2nd and 3rd visit

Note:

I. Care to be given during immediate postpartum visit:

***For the Mother*:**

- Ask what problems does the mother have
- If there is vaginal bleeding and if there appear danger signs after delivery
- Counseling on post-partum danger signs using family health card and if they are present, referring to a higher health facility
- Taking body temperature. If it is ≥ 380C refer
- Give TT vaccine as relevant
- If she has not completed taking Iron tablet, encourage her to continue (she has to take it for 6 months totally)
- Counsel about nutrition, hygiene, use of bed net, safe sex and family planning using the family health card
- Giving contraceptives of her choice
- Advising on the importance of ITN and encouraging use

***For the newborn*:**

- Checking for the presence of danger signs on the newborn. Refer if there is any
- Measure body temperature and weight
- Encouraging exclusive breast feeding
- Applying TTC eye ointment on both eyes
- If there is itching on the skin and drainage from the umbilicus, refer
- Advise not to bath/wash the newborn immediately. (Bathing should be delayed at least for one day)
- Make sure that the baby is placed in skin to skin contact with his mother and his whole body including the head and legs is covered
- Vaccinate for polio and BCG
- Counsel using the family health card on the following:
    - Breast feeding
    - Vaccination
    - Cord care
    - Prevention of heat loss
    - Newborn danger signs
    - Hygiene

II. Next visits on 3rd, 7th days and on 6th week after delivery/Care to be given during the visits:

For the mother

- Check for any problem
- Check for danger signs. If there is any, refer
- Counsel about family planning, personal hygiene, nutrition, danger signs using family health card

- Asking if there is any problem related with breast feeding and solving the problem
- Refer the mother if she has many sign of infection/sepsis (fever, convulsion, foul smelling vaginal discharge). Ask if the mother is recovering

For the baby

- Encouraging exclusive breast feeding
- Keeping the baby's temperature, cover the head, legs, hands and establish skin to skin contact
- Checking for newborn danger signs, emergency preparedness and refer if there is any
- Advise to hand wash before touching and caring the baby and to keep the baby's hygiene.
- Follow the baby for weight gain (the baby losses weight in the first few days and has to start gaining weight gradually)
- Advise to keep the cord clean

Session 6: Care for newborn

Session Objective: by the end of this session participants will be able to identify, counsel and demonstrate skills on essential new born care, early initiation of breast feeding and newborn danger signs.

Enabling objectives: By the end of this session participants will demonstrate the required knowledge, attitude and skill to:

- Identify Essential Newborn Care
- Demonstrate Common newborn care practice (clear air way, cord care and preventing hypothermia)
- Counsel on early initiation of breast feeding
- Identify newborn danger signs

Time: 120 minutes

Enabling objectives 1: Identify Essential Newborn Care

Training method: Group exercise with card game (30 min)

You are required to discuss on the common newborn care practices in the community. This activity is to enable the participants reflect and see their impact on the health and well –being of the neonate. As you are coming from different cultural backgrounds, this session will allow you see the common misconceptions in the community. It will also help you identify your own attitude on the common beliefs so that you will have the right approach to provide newborn care.

"**Agree/ disagree**" Statements for group exercises:

1. It is wise to apply butter and cow dung on the umbilicus since this practice help the healing process to be faster.
2. It is not advisable to give butter for the newborn because it will affect the digestive system and resulted in diarrhea.
3. Keeping the baby in the skin-to-skin contact with the mother protect the newborn form hypothermia.
4. The newborn should start breastfeeding soon after the delivery as long as mother and baby are ready._
5. It is advisable for the mother to wash her baby on the day of birth. This prevents newborn infections.

6. The level of care that should be provided to the newborn should vary based on sex of the newborn.
7. Women with low education can't really understand the importance of good newborn care.
8. Men should not be involved in newborn care._
9. Men can't be expected to share responsibility for newborn care.

Note:

Essential Newborn Care

- Wash hands with soap and water before handling the baby and encourage all others, including family members, to do the same
- Dry and stimulate the baby-if the baby is not breathing stimulate by drying with cloth, clear mucus from mouth with clean cloth
- Assess the baby's breathing and color
- Tie and cut the cord
- Place the baby in skin to skin contact with the mother (or other adult family member) then wrap with dry cloth
- Have the mother start breast feeding as soon as possible (within 1 hour of birth)
- Give eye care
- Give vitamin K injection (1mg, on the anterior & middle of thigh)
- Weigh the baby

Keeping a newborn warm

- Hypothermia (low body temperature) of the newborn mostly occurs during the first 5 minutes after birth
- The newborn cannot regulate its temperature as well as an adult and therefore needs to be protected from cold.

Steps to keep the newborn warm:

- Warm the room where the birth takes place and the baby will stay warm (but avoid suffocating the room with smoke or over warming).
- Dry the baby as soon as it is born (comes out of the birth canal). Remove the wet cloth or towel and replace with a dry cloth.
- Keep the baby in skin-to-skin contact with the mother and cover them with a dry sheet or blanket.
- Put a hat/cap and socks on the baby.
- Initiate breastfeeding as soon as the mother and baby are ready to breastfeed, usually within 60 minutes of birth.
- Avoid bathing the baby on the day of birth.
- Keep mother and baby together.
- Keep the baby warm in case of referral.

Care of the Umbilical Cord

1. Hand washing before touching the stump of the baby.
2. Keep the umbilical cord always clean and dry. Don't apply anything on the cord.
3. Check regularly that the cord is not bleeding or oozing blood. If stump oozes blood, check the cord tie and tighten if the tie is loose. If oozing/bleeding doesn't stop by tightening the tie, refer the baby to a health facility.

Extra care for small baby

If given the necessary care, small babies can have a very good chance of survival.

The following problems commonly happen in small babies:

- Get cold easily
- Difficulty in breastfeeding
- More likely to get an infection than normal weight babies
- Difficulties in breathing

Extra care that small baby needs:

- For very low birth weight (<1,500 gms)
    - Refer to a health facility as these babies may have breathing problems and may not be able to feed.
- For low birth weight (1,500 - <2,500 gms)
    - Extra support for breastfeeding, at least every two hours during day and night
    - If not able to breastfeed, feed express breast milk using cup and spoon
    - Extra care for keeping warm- the best way to keep them warm at all times is to keep them in skin to skin contact with the mother or other family members.
    - Extra attention to hygiene– e.g. hand washing.
    - Mothers of small babies need extra support from other family members to feel confident about caring of a small baby.
    - Regular and additional postnatal follow up visits. Include checking for danger signs in the new-born.

Enabling objective 2: Counsel on early initiation of breast feeding

Facilitation methods: Brainstorming (10 min), demonstration and group discussion (50 min)

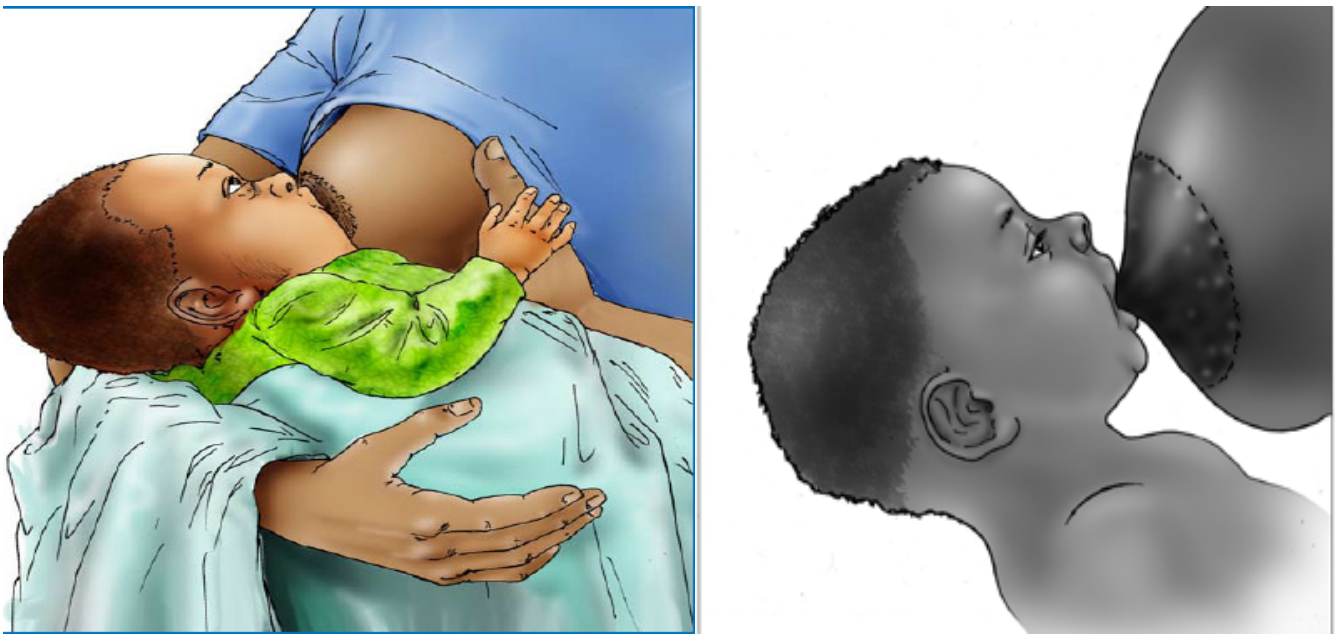
You will be asked to brainstorm on the common breast feeding practices in your locality and to interpret the pictures below, (fig. 11 and 12)

- A - - B –

Fig 11: Positioning a baby for breast feeding

Note:

Figure 11 A shows correct/good positioning, but Fig 11B is incorrect positioning.



- A - - B –

Figure 12B shows correct/good attachment, but Fig 12A is incorrect attachment.

Finally, you will be asked to discuss on the common breast feeding problems using the following case studies. your facilitator will help you find correct answer

Case study

Group I: Abise's story

Abise gave birth to a full-term, healthy baby boy two days ago, and she has been exclusively breastfeeding. The baby started breastfeeding within 20minutes after birth. Abise is complaining of sore nipples. You observe Abise nursing the baby and see that the baby is not opening his mouth wide and is only latching on to the nipple. Counsel Abise. Be sure to include all of the relevant information.

Group II: Amarech's story

Amarech gave birth to a healthy, full-term baby girl one week ago. The baby weighed 3.5 kg at birth. Today the baby weighs 3 kg. Amarech complains that her baby sleeps a lot so she is nursing 6 to 7 times in 24 hours. She does not think the baby is getting enough milk. Counsel Amarech. Be sure to include all of the relevant information.

Group III: Tedbabe's story

Tedbabe gave birth to a healthy baby boy three days ago. Tedbabe's mother has been feeding the baby sugar water from a bottle so that Tedbabe can rest. Tedbabe complains that her breasts are very full, hard, and painful. The baby is having trouble latching on. Counsel Tedbabe. Be sure to include all of the relevant information.

Group IV: Letaye's story

Letaye gave birth to a healthy baby girl 7 days ago. She is complaining that her breasts have become hard, tender even to the touch of her cloths, red and hot. Demonstrate how you will counsel Letaye. Be sure to include all of the relevant information.

Facilitator`s Note:

Optimal Breastfeeding practices for baby from 0 to 6 months.

1. Give the first yellow milk made especially for the newborn as it will protect your baby from illness.

- This first yellow milk (colostrum) will help to expel your baby's first dark stool.
- Colostrum contain many important antibodies which will protect your new baby from disease. Colostrum is the first vaccination for your child protecting it from common childhood illnesses like tetanus until the baby develops its own resistance.

2. Put your baby on the breast immediately after birth, even before the placenta is expelled, to stimulate your production of milk.

- Immediate breastfeeding within one hour of birth will help to expel the placenta and reduce post-partum bleeding.
- More milk is produced when babies suck on the breast for longer and more frequent time
- Pre-lacteal feeds (such as sugar water, water, butter, other) are not necessary and may interfere with establishing good breastfeeding practices or cause diarrhoea during the first days of the baby's life.

3. Feed your baby only breast milk for the first six months, do not even giving water, to help your baby to grow healthy and strong.

- Feeding the baby only breast milk provides the best nourishment possible for the baby and will protect

her/him from diseases such as diarrhoea and respiratory infections.

- Breast milk is a well-balanced and the best food for children under the age of 6 months. Its water and other nutrient contents are sufficient to satisfy the needs of the baby. In addition giving the baby water or other liquids may make your baby sick with diarrhoea. If the baby takes water or other liquids, your baby's appetite for breast milk may decrease meaning s/he sucks less on the breast leading to poor growth.
- Even during very hot weather, breast milk will satisfy all your baby's thirst for liquids during the first six months.

4. Breastfeed your baby on demand, 10 to 12 times in 24 hours, to produce enough milk and provide your baby with enough food.

- Frequent breastfeeding helps to produce enough milk.
- Increases bonding between mother and child.
- Ensure proper positioning and attachment so baby gets adequate breast milk and to avoid breast problems such as sore and cracked nipples. Advise mothers with nipple and breast problems to seek immediate care from Health Worker.

5. Empty one breast first before switching to the second for your baby to get the most nutritious hind milk to grow strong and healthy.

- Foremilk quenches thirst because it is more watery.
- Hind milk is richer and satisfies the baby's hunger so that s/he will be satisfied.

6. Ensure that woman who is breastfeeding, eats two extra meals a day to maintain her health and the health of the baby.

- To maintain their health, breastfeeding women need to eat a wide variety of foods, particularly, animal products (meat, milk, eggs, etc), fruits, and vegetables.

7. If your baby is ill, increase the frequency of breastfeeding for your baby to recover faster.

- Continue to breastfeed during episodes of diarrhoea. Try to increase the frequency of feeding, to replace the liquid lost.
- Breastfeeding more frequently during illness will help your baby to fight the sickness and not lose weight.
- Breastfeeding also provides comfort to a sick baby.
- Sick mothers can continue to breastfeed their baby unless advised by a medical personal.

8. After each illness increase the frequency of breastfeeding for the baby to regain health and weight.

- Each time a baby is sick, s/he will lose weight so it is important to breastfeed as often as possible.

Enabling objectives 3: Identify newborn danger signs and counsel for further investigation and management

Training method: Group activity with case study (30 min)

You will be asked to discuss on the danger signs of the new born based on the information

given below on different cases (card a, b, c, d, e, f, g, h, i, j). your facilitator will assist you while doing this activ-
Cards for Newborn Danger Signs: Decision-Making Game

Baby A - 6 hours old	Baby B - 8 hours old	Baby C - 20 hours old
• Able to feed • Convulsions • 55 breaths/minute • No chest in-drawing • Temperature 39 ^{0}c • Not moving on his own • Soles not yellow • Pus from umbilicus • Weight 2700 gm	• Able to feed • No convulsions • 55 breaths/minute • No chest in-drawing • Temperature 37.2 ^{0}c • Moving on his own • Soles not yellow • Eyes draining pus • Weight 2900 gm	• Able to feed • No convulsions • 44 breaths/minute • No chest in-drawing • Temperature 36.6 ^{0}c • Moving on his own • Soles not yellow • No pus from eyes, skin or umbilicus • Weight 2500 gm
D - 12 hours old baby	**E - 10 hours old baby**	**F - 12 hours old baby**
• Able to feed • No convulsions • 50 breaths/minute • No chest in-drawing • Temperature 35 ^{0}c • Moving on her own • Soles not yellow • No pus from eyes, skin or umbilicus • Weight 2300 gm	• Not able to feed • No convulsions • 58 breaths/minute • No chest in-drawing • Temperature 35.6 ^{0}c • Moving on her own • Soles not yellow • No pus from eyes, skin or umbilicus • Weight 2500 gm	• Able to feed • No convulsions • 52 breaths/minute • No chest in-drawing • Temperature 35.5 ^{0}c • Moving on his own • Soles not yellow • No pus from eyes, skin or umbilicus • Weight 3000 gm
G - 8 hours old baby	**H - 14 hours old baby**	

• Able to feed • No convulsions • 44 breaths/minute • No chest in-drawing • Temperature 36.6 ^{0}c • Moving on her own • Soles not yellow • No pus from eyes, skin or umbilicus • Weight 2200 gm	• Able to feed • No convulsions • 57 breaths/minute • No chest in-drawing • Temperature 37 0c • Moving on his own • Soles not yellow • No pus from eyes, skin or umbilicus • Weight 3200 gm	

I - 22 hours old baby	**J - 16 hours old baby**
• Able to feed • No convulsions • 55 breaths/minute • No Chest in-drawing • Temperature 35.8 ^{0}c • Moving on his own • Soles not yellow • No pus from eyes, skin or umbilicus • Weight 2200 gm	• Able to feed • No convulsions • 50 breaths/minute • No chest in-drawing • Temperature 36.9 ^{0}c • Moving on his own • Soles not yellow • No pus from eyes, skin or umbilicus • Weight 2000 gm

UNIT FOUR: CHILD HEALTH

Unit description: This unit is developed using competence based training approach to improve trainees` knowledge, attitude and skill that they need to better understand vaccine preventable diseases (VPD) and features of vaccines, common childhood illness and home based care for sick child. This unit also enable them to carry out nutritional screening, growth monitoring and supplementations, and follow up visits for healthy children as well as early detection and referral of sick child..

Unit objective: By the end of this unit UHE-Ps will be able to discuss VPDs, explain common features of vaccines, common childhood illness and provide home based immediate care to sick child and demonstrate nutritional screening and supplementation for children.

Training unit specific objectives: By the end of this training unit the participant will be equipped with the required knowledge, attitude and skills to:

- Discuss the types and common side effects of vaccines, immunization schedules, demonstrate administration of each vaccine and trace a child who defaulted from vaccination.
- Explain steps of identifying sick child and Provide immediate care for sick child.
- Effectively demonstrate nutritional screening, explain growth monitoring, explain complementary feeding, and demonstrate vitamin A supplementation and de-worming.

Time: 385 minutes

Session 1: Immunization

Session Objective: By the end of this training session, the participant will have the required knowledge, skill and attitude to discuss the types and common side effects of vaccines, immunization schedules, demonstrate vaccine administration and trace a child who has defaulted from vaccination.

Enabling Objective: By the end of this session, the participant will able to:

- Discuss the types of vaccines, common side effects and immunization schedules
- Demonstrate administration of vaccines
- Trace a child who defaulted from vaccination

Time: 85 min.

Enabling Objective 1: Describe the types of vaccines, common side effects and national immunization schedules

Enabling Objective 2: Demonstration of vaccine administration

Training Methods: Group exercise (50 min) and demonstration (35 min)

Your facilitator will ask you to form four groups and work on the feature of vaccines based on the information given in a series of tables below. You will be asked as well to demonstrate on how to administer Vaccines (EO 2). you need to accomplish both activities according to the instruction of your facilitators.

Group 1

VPDs	Causative agent (bacteria or viral)	Vaccine type available	Schedule	Rout of administration	Dosage
Tuberculosis					
Pertussis					
Diphtheria					

Group 2

VPDs	Causative agent (bacteria or viral)	Vaccine type needed	Schedule	Rout of administration	Dosage
Tetanus					
Hepatitis B					
Hemophilus influenza type b					

Group 3

VPDs	Causative agent (bacteria or viral)	Vaccine type needed	Schedule	Rout of administration	Dosage
Measles					
Pneumococcal Diseases					
Poliomyelitis					
Rotavirus disease					

Group 4- TT

Doses	Causative agent (bacteria or viral)	Schedule	Rout of administration	Site of vaccination	Dosage
TT1					
TT2					
TT3					
TT4					
TT5					

Note

Immunization

Immunization is the process of administrating a weakened or killed microorganism or its product to stimulate the host's immunologic response to that antigen.

Types of Vaccines:

Vaccines can be

- Killed microorganisms (pertussis),
- Live but weakened – attenuated – microorganisms (measles, polio TB)
- Toxoids (tetanus and diphtheria).

Target group

- All under one year children and women of childbearing age(15 - 49 years).

Immunization Schedule for children

A. For those who start at birth:

Contact	Age of Child	Vaccines
1st	At birth	BCG and Polio 0
2nd	6 weeks	OPV1 and DPT1
3rd	10 weeks	OPV2 and DPT2
4th	14 weeks	OPV3 and DPT3
5th	9 months	Measles

B. For those who start later

Age of child	Antigens
Less than 6 weeks	BCG and OPV1
Above 6 weeks	BCG if not given previously OPV (3 doses) DPT (3 doses)
Above 9 months	BCG if not given previously OPV DPT Measles

C: PCV 10 vaccinations schedule for children who have received 0 or 1 -3 pentavalent vaccines doses.

(FMOH,June2011,IntroductionofPneumococcalConjugateVaccineinEthiopia:AReferenceHandbookforHealthExtension Workers, p.8)

Vaccination status if infant aged less than 1 year at time of PCV1 introduction	At first contact	Subsequent contact after4 weeks	Subsequent contact after 4 more weeks
Never received any Penta	Penta1+PCV1	Penta2+PCV2	Penta3+PCV3
Already received Penta1	Penta2+PCV1	Penta3+PCV2	PCV3
Already received Penta2	Penta3+PCV1	PCV2	PCV3
Already received Penta3	PCV1	PCV2	PCV3

D. Tetanus toxoid vaccine schedule for women (15 - 49 years)

Dose	Minimum interval	Duration of protection
TT1	At any time	0
TT2	4 weeks after TT1	3 years
TT3	6 months after TT2	5 years
TT4	1 year after TT3	10 years
TT5	1 year after TT4	Life long

NB: If a woman was given 3 doses of DPT vaccine when she was a child, provided that a written document of her immunization is available, and the doses are given at the right intervals, the 3 doses of DPT can be counted as two doses of TT.

Rota virus vaccineisgivenintwooraldoses,eachof1.5ml,atthefollowingtime intervals:

- First dose at 6 weeks of age, but not later than 12 weeks
- second dose at least 4 weeks after the first dose
- The two- doses schedule should be completed by 16 weeks, but no later than by 24 weeks of age.

Note that the ideal schedule is to give the first dose of Rota virus vaccine to all infants at 16 weeks of age at the same time with Penta 1 and OPV1, and the second dose at 10 weeks at the same time with Penta 2 and OPV 2.

Note:

Common side effects of vaccines

- Low grade fever
- Abscess at injection site
- Swollen lymph glands
- Soreness at the injection site
- Sometimes, several allergic reactions (rash, berating difficulty, rapid pulse, dizziness or fainting)

Session 2: Identification and care of sick child

Session objective: By the end of this training session, the participant will have the required knowledge, skill and attitude to explain steps of identifying sick child and provide immediate care for sick child.

Enabling objectives: By the end of this session, the participant will able to:

- Explain steps of identifying sick child
- Demonstrate the provision of immediate care for sick child

Time:90 minutes

Enabling Objective 1: Explain steps of identifying sick child

Training Method: Case study (50 min)

You will be asked to identify a sick baby based on the following case studies (case study 1 and 2) and what you need to do for cases with danger signs (EO 2) .You need to do it in group based on your facilitator`s instruction

Case studies

Case study 1: Salem's story

Salem is 15 months old. She weighs 8.5 Kg. Her temperature is 38^0C. She lives in a high malaria risk area. The health worker asked, "'what are the child`s problems?" The mother said ' Selma has been coughing for the last four days, and she is not eating well'. This is Salem`s initial visit for this problem. The health worker checked Salem for general danger signs. She asked," Is Salem able to drink or breastfeed?" The mother said ' No, Salem doesn't want to breastfeed." The health worker gave Salem some water. She was too weak to lift her head. She was not able to drink from a cup. Next she asked the mother," is she vomiting?" The mother said, "No". Then she asked, "Has she had convulsion?" The mother said, "No". The health worker looked to see if Salem was convulsing or lethargic or unconscious. She was not convulsing but lethargic.

Case study 2: Fatuma's story

Fatma is 18 months old. she weighs 11.5 KG. Her temperature is 37.5 ^{0}C. The health worker asked, 'what are the child`s problems?'. The mother said ' Fatuma has been coughing for the last six days, and she is having trouble breathing'. This is the initial visit for her illness. The health worker checked Fatuma for general danger signs. The mother said that Fatuma was able to drink. She had not been vomiting. She had not had convulsions during this illness. The health worker asked,' does Fatuma seem unusually asleep?' The mother said, 'yes'. The health worker clapped her hands. She asked the mother to shake her child. Fatuma opens her eyes, but didn't look around. The health worker talked to Fatuma, but the child didn't watch her face. Fatuma stared blankly and appeared not to notice what was going on around her. The top part of the sick child case recording form for the relevant information from the case study has been recorded

Note:

The general danger signs of serious illness that are seen in children aged 2 months up to 5 years will need immedi-

ate action to save the life of the child. There are 5 danger signs and these are set out in the box below (reproduced from IMNCI Assess and Classify Chart Booklet, FMOH, Ethiopia, June 2008). Make sure that any infant or child with any danger sign is referred after receiving urgent pre- referral treatment.

For **ALL** sick children ask the mother about the child's problem, then
CHECK FOR GENERAL DANGER SIGNS

CHECK FOR GENERAL DANGER SIGNS	
ASK:	***LOOK:***
• Is the child able to drink or breastfeed? • Does the child vomit everything? • Has the child had convulsions?	• See if the child is lethargic or unconscious. • See if the child is convulsing now.
A child with any general danger sign needs *URGENT* attention; complete the assessment and any pre-referral treatment immediately so referral is not delayed	

Checking for general danger signs

As you can see there are key questions you need to ask signs you need to look for. A child with a general danger sign has a serious problem. Most children with a general danger sign need urgent referral to hospital. They need live saving treatment with injectable antibiotics, oxygen or other treatments that may not be available at home.

Enabling Objective 2: Demonstrate the provision of immediate care for sick child (see EO 1)

Session 3: Child nutrition

Primary Objective: By the end of this training session, the participant will have the required knowledge, skills and attitude to effectively demonstrate nutritional screening, explain growth monitoring and complementary feeding, demonstrate administration of vitamin A supplementation and deworming.

Enabling Objective: By the end of this session, the participant will able to**:**

- Effectively demonstrate nutritional screening
- Explain growth monitoring and SAM
- Explain complementary feeding
- Demonstrate vitamin A supplementation and de-worming administration

Time: 210 minutes

Enabling Objective 1: Effectively demonstrate nutritional screening

Training Methods: Demonstration (50 min) and case study (20 min)

The purpose of this activity is to enable you with the skill of performing nutritional screening using MUAC tape. Therefore, you need to show your ability by doing MUAC measurement from your experiences and interpreting results based on the following case studies

Case study

Divide participants into four groups and provide the following four cases for discussion on the classification of acute malnutrition and the role of UHEPs in each specific case. Ask them the following questions.

Case 1: Almaz has a 10-months old son. The measurement of MUAC for the baby is 108 mm and the infant has bilateral pitting edema.

Cases 2: Hirut has an 8-months old son. The measurement of MUAC for the baby is 130 mm and the infant has no any bilateral pitting edema.

Case 3: Tirhas had a 12-months old daughter. The measurement of MUAC for her baby is 118 mm and the infant has no bilateral pitting edema.

Case 4: Mame has a 1 and ½ year old daughter. The measurement of MUAC for her baby is 105 mm and the infant has bilateral pitting edema.

You will also be asked to respond to the following questions:

1. Under which classification of malnutrition would the cases fall? (no malnutrition, moderate, acute, serve acute or complicated acute malnutrition)
2. What should be your action if you encounter this case during your house visit?

Note:

Mid Upper Arm Circumference:

An accurate way to measure fat-free mass is to measure the Mid Upper Arm Circumference (MUAC). The MUAC is the circumference of the upper arm at the midway between the shoulder tip and the elbow tip on the left arm. The mid-arm point is determined by measuring the distance from the shoulder tip to the elbow and dividing it by two (Fig. 13). A low reading indicates a loss of muscle mass.

MUAC is a good screening tool in determining the risk of mortality among children, and people living with HIV/AIDS. MUAC is the only anthropometric measure for assessing nutritional status among pregnant women. It is also very simple for use in screening a large number of people, especially during community level screening for community-based nutrition interventions or during emergency situations.

MUAC is therefore used as a screening tool for community based nutrition programs such as an outpatient therapeutic program (OTP), for community-based interventions, supplementary feeding program and enhanced outreach program throughout Ethiopia. MUAC is also used for screening target children and pregnant women for severe acute malnutrition (SAM) and moderate acute malnutrition (MAM).

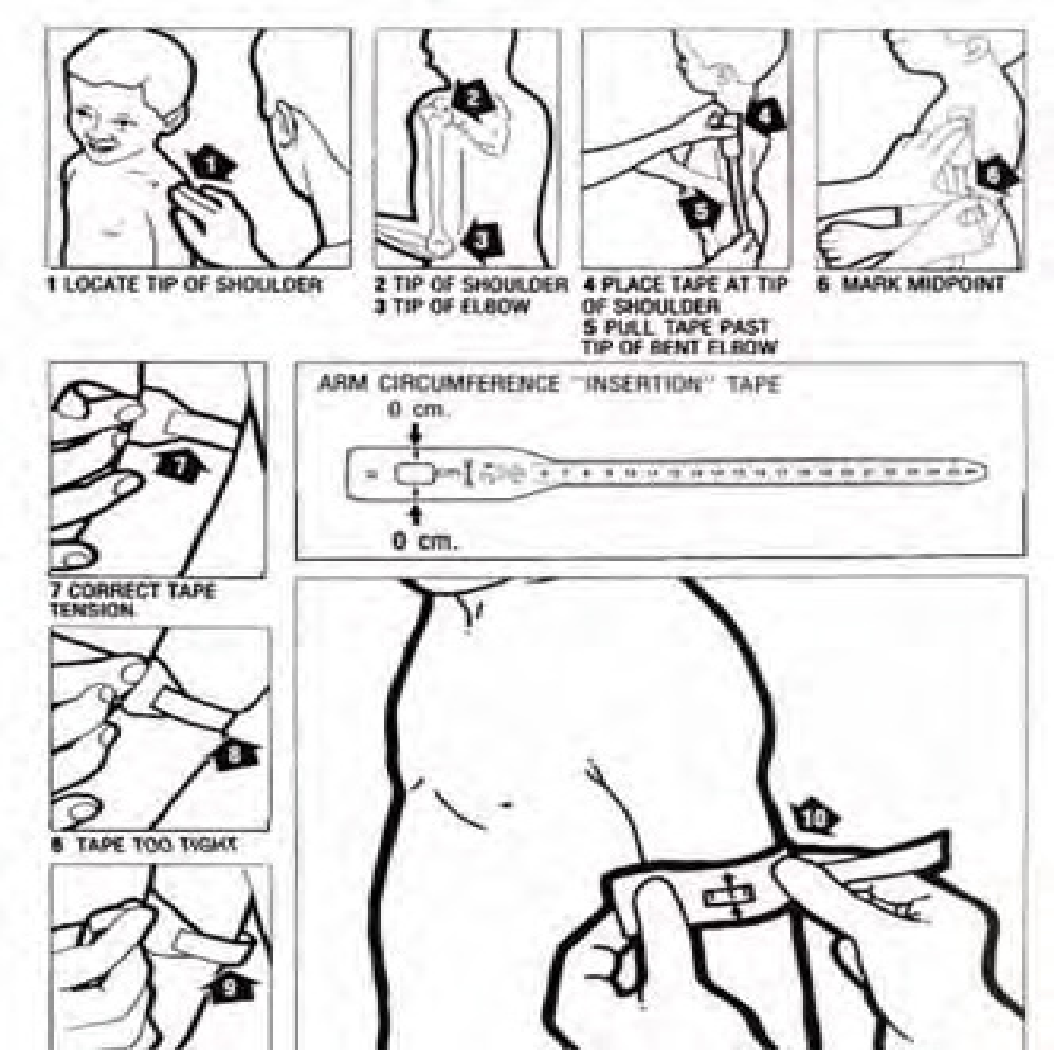


Fig 13: Measuring the MUAC of children:

A special tape is used for measuring the MUAC of a child (see Fig.14). The tape has three colors, with the red indicating severe acute malnutrition, the yellow indicating moderate acute malnutrition and the green indicating normal nutritional status. Figure shows you how to use the tape to measure a child's MUAC.

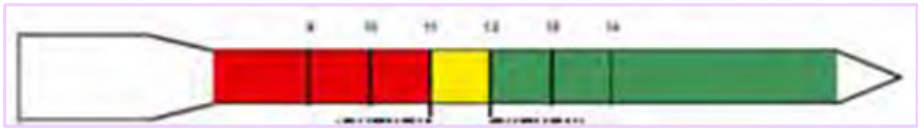


Fig 14: Measuring MUAC. (Source: UNICEF, 1986, How to weigh and measure children: assessing the nutrition status of young children)

Procedures for measuring MUAC (Fig 13)

- Ask the mother to remove any clothing that may cover the child's left arm. If possible, the child should stand erect and sideways to the measurer.
- Estimate the midpoint of the left upper arm (arrow 6).
- Straighten the child's arm and wrap the tape around the arm at the midpoint. Make sure the numbers are right side up. Make sure the tape is flat around the skin (arrow 7).
- Inspect the tension of the tape on the child's arm. Make sure the tape has the proper tension (arrow 7) and is not too tight or too loose (arrows 8 and 9). Repeat any step as necessary.

- When the tape is in the correct position on the arm with correct tension, read the measurement to the nearest 0.1 cm (arrow 10).
- Immediately record the measurement.

Enabling Objective 2: Explain growth monitoring and SAM

Training Method: Demonstration (40 min) and brain storming (20 min)

Two of you will be asked to demonstrate how to take anthropometric measurements of a child for the audience. To practice this your facilitator will give you weighting scales, measurement boards and dolls. you need to practice it in groups but make sure that everyone of you has had an opportunity to practice.

Note

Measuring length

To measure the length of a child under 2 years you need one assistance and a sliding board. As you can see in Fig 15. you need an assistant to help when you measure a child using this method.

1. Both assistant and measurer are on their knees (arrow 2 and 3).
2. The assistant holds the child`s head with both hands and make sure that the head touches the base of the board (arrow 4).
3. The assistant's arms should be comfortably straight (arrow 5).
4. The child should be looking at an object perpendicular to the best of the board (looking straight forwards) (arrow 6).
5. The child should lie flat on the board (arrow 7).
6. The measurer should place their hands on the child`s knees or shins (arrow 8).
7. The child`s foot should be flat against the foot piece (arrow 9).
8. Read the length from the tape attached to the board.
9. Record the measurement on the questionnaire(arrow1).

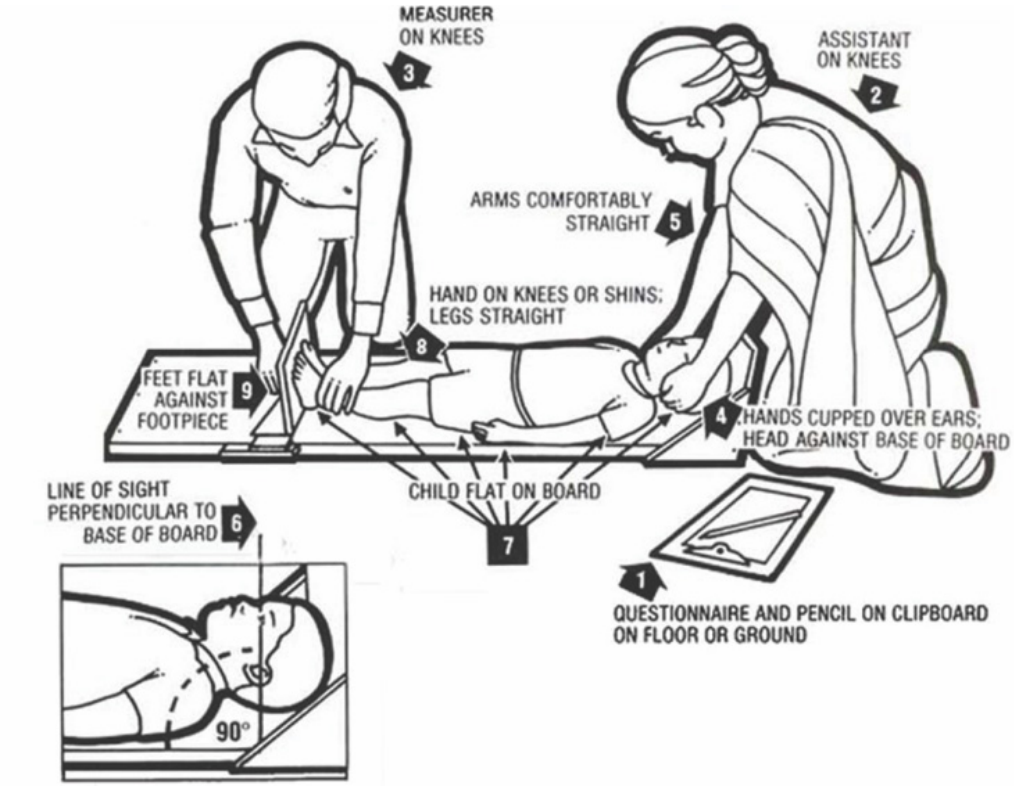


Fig 15 Measuring length. (Source: UNICEF, 1986, How to Weigh and measure children: Assessing the nutrition status of the young children)

Measuring height

This is measured with the child or adult in a standing position (usually children who are two years old or more). The head should be in the Frankfurt position (a position where the line passing from the external ear hole to the lower eye lid is parallel to the floor) during measurement. Shoulder, buttock and the heels should touch the vertical stand. Measurement are recorded to the nearest millimeter.

As with measuring a child's length, to measure a child's height, you need to have another person helping you. Fig 16 illustrates the procedures, and in Figure 17, you can see a young child having his height measured.

1. Both the assistant and measurer should be on their knees (arrows 2 and 3).
2. The right hand of the assistant should be on the shins of the child against the base of the board (arrow 4).
3. The left hand of the assistant should be on the knees of the child to keep them close to the board (arrow 5).
4. The heel, the calf, buttocks, shoulder and occipital prominence (prominent area on the back of the head) should be flat against the board (arrows 6, 7, 14, 13 and 12).
5. The child should be looking straight ahead (arrow 8).
6. The hands of the child should be by their side (arrow 11).
7. The measurer's left hand should be on child`s chin (arrow9).
8. The child's shoulders should be leveled (arrow 10).
9. The head piece should be placed firmly on the child's head (arrow 15).

10. The measurement should be recorded on the questionnaire (arrow 1).

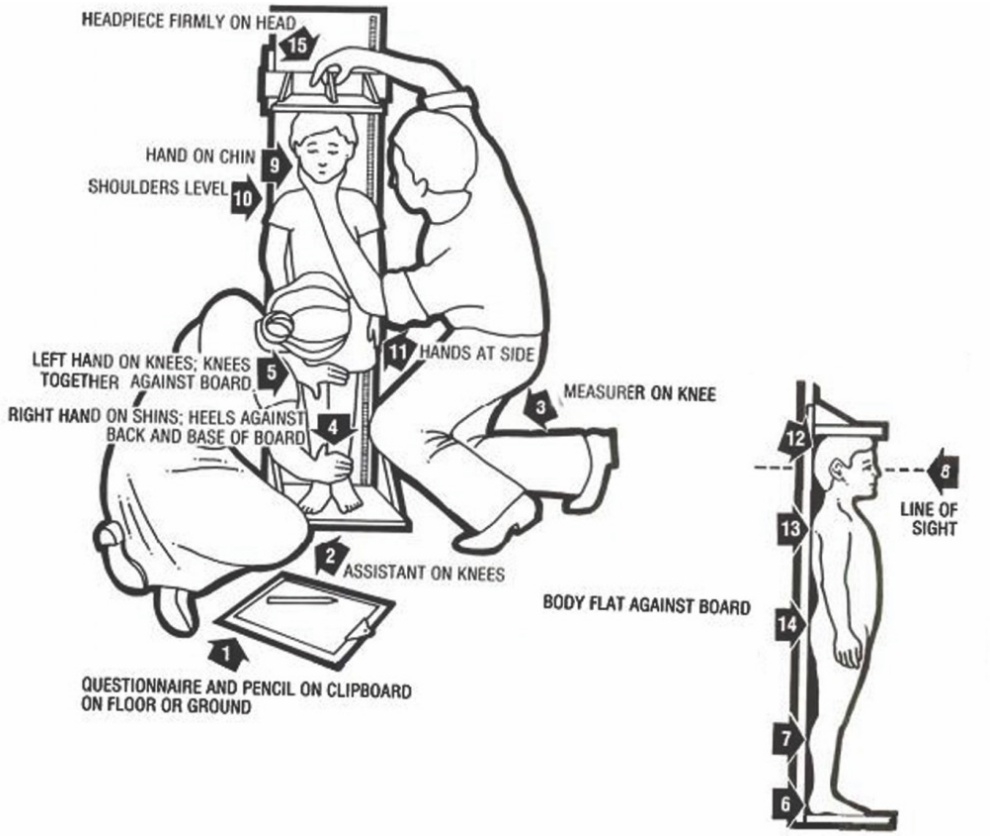


Fig 16: Measuring height. (Source: UNICEF, 1986, How to Weigh and measure children: Assessing the nutrition status of the young children)

Measuring Weight

A weighing sling (spring balance), also called "Salter scale" is used for measuring the weight of children under two years old. A beam balance is used to measuring children over two years and adult persons. In both cases digital electronic scale can be used if available. Don't forget to re-adjust the scale to zero before each weighing. You also need to check whether your scale is measuring correctly by weighing an object of known weight.

Procedures

In Figure 4.3.2.3 you can see the procedures for weighing a children 2 years old using a Salter scale. The photo in Figure 5.4 shows a small boy being weighted using the scale.

1. Adjust the pointer of the scale to zero level

2. Hold the child`s legs through the leg holes (arrow 1)

3. Hold child`s feet (arrow 2)

4. Hang the child on the Salter scale (arrow 3)

5. Read the scale at eye level to the nearest 0.1 Kg (arrow 5)

6. Move the child slowly and safely.

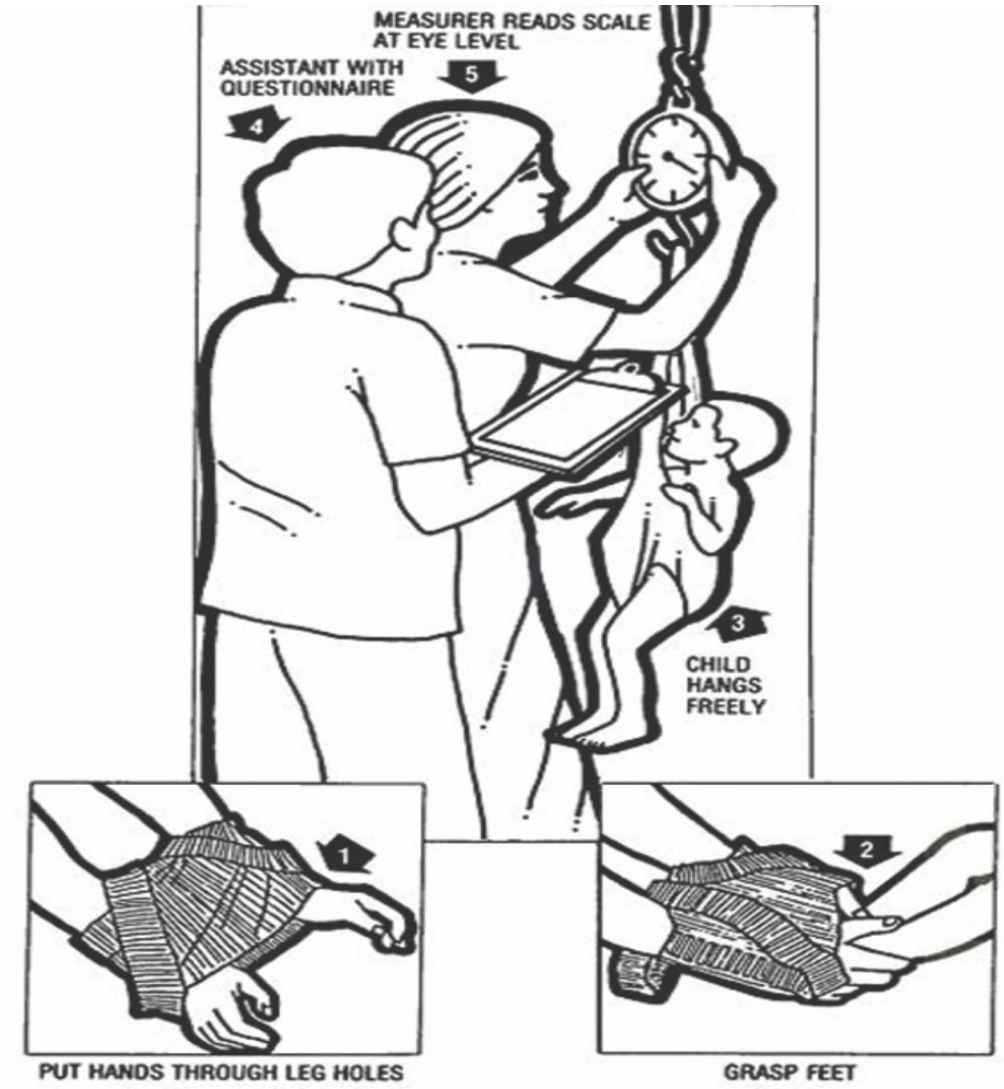


Fig 17: Measuring Child's weight using Salter Scale. (Source: UNICEF, 1986, How to Weigh and measure children: Assessing the nutrition status of the young children)

Calculating index

An index is a combination of two measurements or one measurement plus the person's age. The following are a few indices that you may find useful in your work.

Weight-for-ageis an index used in growth monitoring for assessing the children who may be underweight. you can assess weight-for-age children under two years old when you carry out your community- based nutrition (CBN) activities every month.

Height-for-age is anindex used for assessing stunting (chronic malnutrition children). stunted children have poor physical and intellectual performance and lower work output leading to lower productivity at individual level and poor socio-economic development at the community level. stunting of children in a given population indicates the fact that the children have suffered from chronic malnutrition so much so that it has affected their liner growth.

Stunting is defined as a lower weight for age of the child compared to the standard child of the same age. Stunted children have decreased mental and physical productivity capacity

Weight-for-height is an index used for assessing wasting (acute malnutrition). Wasting is defined as a low weight for the height of the child compared to this standard child of the same height. wasted children are vulnerable to infection and stand a greater chance of dying.

Body mass index is the weightof a child or adult in Kg divided by their height in meter squared: Weight (Kg)/ height (meters). Here is how to calculate each index for children in your community.

Weight for Age = Weight of the child

Weight of the reference child of the same age X 100

Weight for Height = Weight of the child

Weight of the reference child of the same Height X 100

Birth Weight

Weight of the child at birth and is classified as follow:

More than 2500 grams	=	Normal birth weight
1500–2499grams	=	Low birth weight
Less than 2500 grams	=	Very low birth weight

***Brainstorming :* Assessment and Classification SAM**

This activity will help you assess SAM in children 0-6 months and 6-59months age groups. You will be asked to do the activity based n the following questions:

1. What should we ask mothers/care givers during SAM screening?
2. What do we look for and measure in SAM screening?
    - Why do we need to know about SAM?
    - How would you do be able to use this in your daily activities?

Note:

SAM screening techniques and classification

Criteria for classification of acute malnutrition among young Infants 0 to 6 months

ASK	LOOK AND FEEL	Signs	Classify	Treat
Ask for signs of medical complications: Is the child: • Too weak to suckle effectively? • Vomiting everything? Does the child have • Recent weight loss or failure to gain weight	**1. Check for presence of edemaof both feet** (orsacrum) • Does the child have edema? **2. Check the weight and Length** •Is the weight-for-length less than-3z-score? **3. Check for signs of medical complications:** • Hypothermia: axillary temp <35 ^{0}C or rectal < 35.5 ^{0}C • Fever ≥ 37.5 ^{0}C • Ineffective feeding (attachment, positioning and suckling) directly observed for 15 to 20 minutes • Any medical or social issue needing detailed assessment or intensive support • severe anemia (sever palmar pallor) • Jaundice • convulsions • Very Weak, Lethargic or unconscious • Pneumonia or fast breathing	• WFL <-3Z score, OR • Visible wasting OR • Edema of both feet And presence of any one of complications	**Complicated Severe Acute Malnutrition**	**Admit for in-patient management** **(CARE PLAN C-Inpatient)**
		• WFL < -3Z scoreAND no complications OR • WFL ≥ -3Z to < -2Z score, AND • No edema of both feet	**Uncomplicated severe acute malnutrition** **or** **Moderate Acute Malnutrition**	Course of broad-spectrum oral antibiotic, such as amoxicillin • Detailed assessment of underlying cause(s) of malnutrition + tailored action to address these • Plot & appraise growth chart for monitoring progress

Criteria for classification of acute malnutrition among children 6 to 59 months of age

ASK	LOOK AND FEEL
Ask for signs of medical complications: Is the child: • Unable to breast feed, drink or feed? • Vomiting everything? Does the child have: • Blood in stool? • Diarrhea≥14d? • Bleeding tendencies? • History of recent sunken eyeball? • Convulsion (more than one or prolonged for >15 min)?	**4. Check for presence of edemaof both feet** (orsacrum) • Does the child have edema? • If yes, is it generalized involving upper arms and face? **5. Check the weight and height** •Is the weight-for-height less than-3z-score? **6. Check MUAC;** is the MUAC <11. 5cm? **7. Check for signs of medical complications:** • Hypothermia: axillary temp <35 ^{0}C or rectal < 35.5 ^{0}C • Fever ≥ 38.5 ^{0}C • Pneumonia/severe pneumonia • Shock • Dehydration (watery diarrhea with recent sunken eye balls.) • Hypoglycemia • Severe anemia (severe palmar pallor) • Jaundice • Dermatosis +++ • Corneal clouding or ulceration • Measles (now or with eye/mouth complications) • convulsions • Very Weak, Lethargic or unconscious

Signs	Classify	Treat
• WFL/H < -3Z scoreOR MUAC <11.5 cm OREdema of both feet (+, ++), **PLUS** ○ Any one ofthe medical complications or ○ Failed Appetite test OR • +++ Edema,OR • Marasmic Kwashiorkor (WFL/H < -3Z with edema, OR MUAC <11.5 cm with edema)	**Complicated Severe Acute Malnutrition**	**Admit for in-patient management** **(CARE PLAN C-Inpatient)**
• WFL/H < -3ZscoreORMUAC <11.5 cm OR • Edema of both feet (+, ++) AND • No medical complication AND pass appetite test	**Uncomplicated Severe Acute Malnutrition**	Manage in OTP using the OTP protocol **(CARE PLAN C-outpatient)**
• WFL/H ≥ -3Z to < -2Z score OR MUAC 11.5 cm to <12.5 cm AND No edema of both feet	**Moderate Acute Malnutrition**	Admit to TSFP if available, Counsel on infant and child feeding/care **(CARE PLAN B)**
• If WFL/H ≥-2Z score ORMUAC ≥ 12.5 cm AND • No edema of both feet	**No Acute Malnutrition**	Congratulate and Counsel the mother on infant and child feeding/care **(CARE PLAN A)**

CRITERIA FOR CLASSIFICATION OF ACUTE MALNUTRITION AMONG CHILDREN 5 TO 18 YEARS OF AGE

ASK

Ask for signs of medical complications:

1. Is the child vomiting everything?
2. Does the child have:

- Blood in stool?
- Diarrhea≥14d?
- Bleeding Tendencies?
- History of recent sunken eyeball?
- Cough more than 21 days
- Active TB on treatment?
- Convulsion (more than one or prolonged for >15 min)?

LOOK AND FEEL

1. **Check for presence of edemaof both feet** (orsacrum)
   - Does the child have edema?
   - If yes, is it generalized involving upper arms and face?
   - Is there no other cause for edema?
2. **Check the weight and height**
   - Is the weight-for-height less than-3z-score?
3. **Check BMI for age**
   - Does he have low BMI for age?
4. **Check MUAC**

Age (years)	MUAC severe (cm)	MUAC moderate (cm)	MUAC normal (cm)
Children 5 to 9	<13	13 - <14	≥14
Children 10 to 14	<16	16 - <18	≥18
Children 15 to 17.9	<17	17 - <19	≥19

5. **Check for signs of medical complications:**

- Hypothermia: axillary temp <35 ^{0}C or rectal < 35.5 ^{0}C
- Fever ≥ 38.5 ^{0}C
- Pneumonia/severe pneumonia
- Shock
- Dehydration (watery diarrhea with recent sunken eye balls.)
- Hypoglycemia
- Severe anemia (severe palmar pallor)
- Jaundice
- Dermatosis +++
- Corneal clouding or ulceration
- Measles (now or with eye/mouth complications)
- Very Weak, Lethargic or unconscious

SIGNS	CLASSIFY	TREAT
• WFL/H < -3Z score OR MUAC in severe category OR BMI for age<-3SD OR • Edema of both feet (+, ++), **PLUS** ○ Any one of the medical complications, or ○ Failed Appetite test OR+++ edema, OR • Marasmic Kwashiorkor (WFL/H < -3Z score with edema, OR MUAC in severe category with edema)	**Complicated Severe Acute Malnutrition**	**Admit for in-patient management** **(CARE PLAN C-Inpatient)**
• < -3Z score OR MUAC in severe category OR • BMI for age <-3SD OR • Edema of both feet (+, ++) AND • No medical complication AND pass appetite test	**Uncomplicated Severe Acute Malnutrition**	Manage in OTP using the OTP protocol **(CARE PLAN C-outpatient)**
• WFL/H ≥ -3Z to < -2Z score OR • MUAC in moderate category OR • BMI for age -3 to <-2SD AND No edema of both feet	**Moderate Acute Malnutrition**	Admit to TSFP if available Counsel on feeding and care **(CARE PLAN B)**
• If WFL/H ≥ -2Z score OR MUAC in normal category OR • BMI for age ≥ - 2SD AND • No edema of both feet	**No Acute Malnutrition**	Congratulate and counsel the mother on feeding and care **(CARE PLAN A)**

CRITERIA FOR CLASSIFICATION OF ACUTE MALNUTRITION AMONG ADULTS 18 YEARS OR OLDER

ASK	LOOK AND FEEL
1. Has the client lost weight unintentionally in the past month? 2. Has the client had • Active TB or on treatment for it? • Diarrhea≥14d? • Other chronic OIs or malignancies? (e.g. esophageal infection, mouth soar or oral thrush) 3. Has the client had noticeable changes in his/her body composition, specifically his/her fat distribution? • Thinning of limbs and face • Change in fat distribution on the limbs, breast, stomach region, back or shoulders? 4. Has the client experienced the following? • Nausea and/ or vomiting • Persistent fatigue • Poor appetite	**1. Check for presence of edemaof both feet** (orsacrum) • Does the client have edema? • If yes, is it generalized involving upper arms and face? • Is there no clear cut other cause? **2. Measure weight and height** •is the BMI <16? **3. Check MUAC** • is MUAC <18 cm? • is MUAC <19cm for PLW? **4. Examine for conditions that cause secondary malnutrition (see above and in "ASK" part)** **5. Check for signs of medical complications:** •Severe anemia •Severe dehydration •Active TB •Pneumonia •Shock •Jaundice •Dermatosis +++ •Very weak, lethargic or unconscious

Signs	Classify	Treat
• BMI <16 OR MUAC <18cm • for Pregnant and Lactating Women <19 cm • **OR** Edema of both feet without clear cut other cause, **OR** • **FOR HIV Positive client:** BMI >=16 and <17.5 OR MUAC >=18 and <21 cm **PLUS** • Any one of the medical complications,	**Complicated Severe Acute Malnutrition**	**Admit for in-patient management** **(CARE PLAN C-Inpatient)**
• BMI <16 OR MUAC <18cm • for pregnant and lactating women <19 cm OR • Edema of both feet without clear cut other cause, AND • No medical complication	**Uncomplicated Severe Acute Malnutrition**	Manage in OTP using the OTP protocol **(CARE PLAN C-outpatient)**
• BMI >=16 and <17.5 OR MUAC >=18 and <21 cm • **For pregnant women and lactating mothers:** MUAC>=19t and <23 cm OR • **For HIV positive client:** ○ Confirmed (>5% weight loss since last visit) or reported weight loss (e.g. loose clothing) ○ Regardless of BMI or MUAC: Any of the following: ▪ Chronic lung disease, TB, persistent diarrhea, other chronic Opportunistic Infection (OI) or malignancy **AND** • No edema of both feet	**Moderate Acute Malnutrition**	Admit to TSFP if available, Counsel on Critical Nutrition Practice (CNP) **(CARE PLAN B)**
BMI ≥17.5 OR MUAC ≥21 cm (for pregnant and lactating mothers ≥23 cm) AND • No edema of both feet	**No Acute Malnutrition**	Congratulate and Counsel on CNP **(CARE PLAN A)**

Enabling Objective 3: Explain complementary feeding**Enabling Objective 4:** Demonstrate vitamin A supplementation and de-wormin

Method: Demonstration (30 min) class exercise(10 min), group discussion (40 min)

First, You will be given a piece of paper with table depicting types and groups of foods (table 13) to identify the corresponding sources of the said foods. Next, you need to demonstrate how you do provide a counseling to mothers/guardians/family on complementary feeding and finally, you will demonstrate how to administer Albendazole and vitamin A to children of different age groups. your facilitator will assist you closely in doing these activities

Table 13: Types of nutrients and their food sources

Nutrient	Food group	Examples of food/sources (see facilitator note below)
Sugar and starch fiber	Carbohydrate	
Fats/oils	Fat	
Protein	Proteins	
Vitamins and minerals	Micronutrients	
Water	Water	

Note:

The UHE-Ps can assist families in choosing foods with diversified composition that keeps energy intake within reasonable bounds, while maximizing intake of nutrient-rich foods such as vegetables, fruits, legumes, whole grains, exclusive breast milk and other foods and fluids. Start optimal complementary feeding (giving solid or semi-solid food to a child in addition to breast milk) at six months with continuation of breast feeding for the first two years and above. School aged children needs at least two to three mixed meals and some snacks per day.

Children 1-5 years old need breast milk until they are at least two years old. They need at least three mixed meals and two snacks each day. They cannot eat large bulk meals. It is especially important for the meals to be clean and free from biological and chemical contaminations.

Babies 6-12 months need breast milk eight to ten times or more per day. They need small meals, which are not bulky, three to five times a day.

When you are advising mothers and caregivers about optimal complementary feeding, there are a number of key messages you can give.

- When the infant is six months old the mother must give the infant complementary foods in addition to breast milk to help the infant grow strong and healthy. At this age, breast milk alone cannot meet all the nutritional requirement for growth and development of the infant.
- The mother should continue giving breast milk as the main food throughout the infant`s first year. Breast milk will continue to protect the child against illness.
- The mother or caregiver should begin complementary feeding by adding available and affordable local foods. Vegetables, fruits, eggs, milk and meat should be mixed with cereals and legumes. Increase the amount of food given per day as the child grows.

Enabling Objective 4: Demonstrate vitamin A supplementation and de-worming (see EO 3 above)

Note:

Schedule for Vitamin A supplementation

Target for vitamin A for treatment	Immediately on diagnosis	Next day	Follow-up
Infants less than 6 months old			
Infants aged 6–11 months			
Children aged 12 months and over			

Target for vitamin A as EPI plus	Immunization contact	Vitamin A dose
Infants 6–11 months Children 12 months and older		
Children 12–59 months		

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Post-test, course evaluation, and closing (60 min)

When you have finished the module, your facilitator will summarize the whole module and provide you with a post-test. You must score at least 70 percent to be certified.

REPRODUCTIVE, MATERNAL, NEW BORN AND CHILD HEALTH

Participant`s Manual