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Training manual for cluster representatives and health volunteers

Module I Family health



World Health
Organization

Regional Office for the Eastern Mediterranean

Training manual for cluster representatives and health volunteers

Module I

Family health



**World Health
Organization**

Regional Office for the Eastern Mediterranean

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Introduction

Poverty is the most serious challenge that humankind currently faces. A healthy life, free from starvation and disease, is the right of each and every person. Diseases are one of the main obstacles that stand in the way of community efforts to overcome poverty. The spread of disease increases poverty and poverty accelerates the spread of disease. Improving health status through investment in health improves economic and social outcomes and thus can alleviate vulnerability and offer an exit route out of poverty. Indeed, healthy children are better able to learn and healthy adults are better equipped to work and care for their families. The health sector thus has sufficient grounds to justify its engagement in poverty reduction initiatives, for which it has to develop both the skills and infrastructure necessary to work in partnership with other sectors and the community.

The Regional Office for the Eastern Mediterranean has successfully advocated to Member States the importance of involving communities as active partners in the delivery of comprehensive primary health care. Experience from different countries of the Region implementing community-based initiatives (CBI) programmes has shown that organized and aware communities are able to significantly improve health indicators, especially related to immunization coverage, access to water and sanitation, mother and child health, tuberculosis and malaria control and healthy lifestyles. Community-based initiatives have been so successful in countries that Member States have begun to institutionalize the programme in a sustainable manner as part of the government structure. Community participation in health care programmes is now increasingly being recognized as an innovative and effective approach.

Cluster representatives and health volunteers in CBI-implementing areas of the Region have been assisting in the implementation of priority health programmes at the community level, while maintaining strong linkages with health services and health workers operating in the area. They are trained by specially selected trained nurses and technicians working in the nearest health facility to the CBI site supervised by members of the CBI intersectoral team and related technical programmes at the district level. However, there is a growing need to empower them, not only with the transfer of health messages, but also as partners in health planning and in its implementation. Responding to the challenge, the community-based initiatives programme of the Regional Office produced this training manual for cluster representatives and health volunteers in coordination with the 17 relevant technical units in the Regional Office. Its publication represents a starting point towards the integration of community-based initiatives into all health-related programmes at community level and its use facilitates the ability of health programmes to work closely with communities to involve them in a sustainable way at grass-roots level.

In using this manual health volunteers and cluster representatives will be trained on their specific roles and responsibilities and will be made aware of simple and timely actions to prevent and manage common diseases and health-related issues. It is expected that more extensively trained community representatives and health volunteers will be able to assist the health system in improving the access of the target population to primary health care services and in helping to ensure the provision of timely health services to the entire population. This manual has been successfully field-tested in several countries of the Region and it is

expected that Member States will translate the manual into local languages and use it as a guideline for community involvement in health actions. Countries of the Region can adapt and adopt the material in accordance with their specific needs, culture and local situation. It should be updated periodically to accommodate new health issues and challenges.

The manual comprises four modules.

Module 1. Family health: Birth and emergency planning; Birth spacing; Child health, Nutrition and Dental hygiene

Module 2. Emergencies, environmental health and food safety: Emergency planning, First aid, Healthy environment, Food and chemical safety

Module 3. Communicable diseases: Tuberculosis; AIDS and sexually transmitted infections; Malaria; Childhood diseases and immunization

Module 4. Noncommunicable diseases: Noncommunicable diseases; Prevention of control of blindness; Active and healthy ageing and old age care; Mental health and substance abuse; Tobacco and health

Unit 1

**Planning for safe
delivery**

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Planning for safe delivery

Learning objectives

The objectives of this session are to enable cluster representatives and health volunteers to:

- understand the importance of providing skilled care at birth, of preparing a birth and emergency plan and of appropriate care-seeking behaviour;
- understand the different elements of a birth and emergency plan to provide support to pregnant women and their families;
- recognize the signs of labour and any danger signs during pregnancy, childbirth and the postnatal period for the mother and the newborn baby;
- consider the possible roles of the community in supporting families during births and complications.

Expected outcomes

After completion of this session cluster representatives and health volunteers will be able to:

- support pregnant women and their families in preparing a birth and emergency plan;
- build community support for birth and emergency planning, for skilled care at birth and for appropriate care-seeking behaviour;
- improve the community's knowledge of danger signs during pregnancy, childbirth and the postnatal period for mothers and newborn babies;
- discuss with the community the barriers to seeking care with skilled attendants and work with different community groups to address those barriers.

Introduction

Every day, 1600 women and more than 10 000 newborn babies die around the world as a result of complications arising during pregnancy and childbirth, despite the fact that most of these complications are avoidable. Careful planning, adequate preparation and appropriate care during pregnancy, childbirth and immediately after birth can contribute to improved maternal and newborn health and to reductions in maternal and newborn morbidity and mortality. WHO recommends that all women are assisted at birth by a trained birth attendant.

Some women and newborn babies will experience complications that require higher level care although it is not always possible to identify those at risk in advance. Every pregnant woman and her family should prepare a birth and emergency plan, and health workers should build community support to ensure that women and babies receive the care they need, as and when they need it.

Safe delivery planning

At the time of birth there are many decisions to be made such as where to give birth, who to select as the trained birth attendant, what is needed for the birth, which transport will be used to take the pregnant woman to the health centre and other issues related to ensuring that all other needs in the home are covered. Planning is essential in order to ensure that the birth takes place in a safe place and is assisted by a trained birth attendant.

If decisions are made in advance and various alternatives identified regarding where to go, how to get there and how it will be paid for, delays can be avoided because the

family is prepared and risks to the mother and/or the baby can be reduced.

Planning for safe delivery should be conducted with the pregnant woman and her family, other community members can also be involved and can provide support if additional care is needed.

Preparing a safe delivery plan

As mentioned earlier, cluster representatives and health volunteers have an important role in advising and supporting women and their families to seek the assistance of a trained birth attendant during and after the birth and for any emergency situation. They can either assist the woman and her family in following the plan prepared with the health worker, or if no plans have been made, in helping them to prepare a safe delivery plan.

The preparation of a safe delivery plan may be a difficult task. The woman and her family may have several options and decisions to make. The preparation of a birth and emergency plan requires support in weighing the best options by looking at the benefits and disadvantages of each option and considering which options best meet the woman's, baby's and the family's needs.

The role of cluster representatives and health volunteers may also be to assist the family in mobilizing the resources necessary to seek appropriate care. This may be done through establishing links with other community members and encouraging them to set up support mechanisms in the community for emergencies (Table 1).

Birth planning

During antenatal visits health workers explain why giving birth with a trained

birth attendant present is recommended. Based on a woman's health status, the health worker can suggest where the best place is for a woman to give birth. Whether this is at home or at the health facility, all births should be attended by a trained birth attendant.

The health worker should support the pregnant woman and her family to plan for the birth by asking questions and assisting them in making decisions regarding the necessary arrangements. Cluster representatives and health volunteers can review the prepared plan with the woman, support her in any discussions she may need to have with her husband and the rest of the family to complete the plan, reinforce the information and assist the family in considering all aspects of the birth.

If a woman decides to give birth in a health facility, she and her family should be assisted in reviewing the arrangements by considering the following issues.

- How will she get to the health centre? Will she, or her family, have to pay for transport? How much will it cost? Can they start saving for these costs now? (If not, what are the alternatives?).
- How much will it cost to give birth at the centre? How will she, or her family, pay? Can they start saving for these costs now? (If not, what are the alternatives?).
- Who will accompany the woman for support during labour and childbirth?
- Who will help to care for the home and any other children while the mother is away?
- Does the woman have the following important items?
 - home-based maternal record and safe delivery plan;

- clean cloths for washing, drying and wrapping the baby;
- additional clean cloths to use as sanitary pads after birth;
- clothes for the mother and the baby; and in some cases, food and water for the woman and her support person.

A woman should be advised to go to the nearest health facility at the first signs of labour. If she lives far away from the health facility, she should go 2–3 weeks before the baby's due date and stay either at the maternity waiting home or with family or friends near the facility.

If a woman decides to give birth at home with a trained birth attendant, her and her family should be assisted by considering the following points.

- Who has been chosen as the birth attendant?
- Who will be the woman's companion during labour and childbirth?
- Who will be close by for at least 24 hours after the woman has given birth?
- Who will help to care for the home and any other children?



The expectant mother will need to prepare the following items.

- a clean and warm room or corner of a room;
- home-based maternal record and safe delivery plan;
- a clean delivery kit which includes soap, a brush to clean under the nails, a new razor blade to cut the baby's cord, three pieces of string (about 20 cm each) to tie the cord;
- clean cloths of different sizes: for the bed, for drying and wrapping the baby, for cleaning the baby's eyes, and for the woman to use as sanitary pads;
- warm covers for the woman and the baby;
- warm spot for the birth with a clean surface or clean cloth;
- three bowls: two for washing and one for the placenta;
- plastic for wrapping the placenta;
- buckets of clean water and a method of heating the water;
- for hand-washing: water, soap and a towel or cloth for drying the hands of the birth attendant;
- fresh drinking-water, fluids and food for the mother;

Advise the woman and her family that they should call the birth attendant at the first signs of labour.



Signs of labour

Cluster representatives and health volunteers should support pregnant women and their families to recognize the first signs of labour so that they can quickly bring a trained birth attendant to provide care at birth.

If a pregnant woman has any of the following signs, she should go to a health centre or call a trained birth attendant as soon as possible. If these signs have continued for 12 hours or more, she should seek medical care immediately.

- painful contractions every 20 minutes or less;
- water breaks;
- bloody, sticky discharge.

Safe delivery planning

Complications may occur either during pregnancy, childbirth or after birth, either for the mother or the baby. It is important that the woman, her family and others in the community are able to recognize the danger signs and support the woman in quickly reaching the care she needs. In order to ensure that a woman can obtain the care she needs in an emergency, she and her family must consider and plan for emergencies in advance.

To help a woman and family prepare for an emergency during pregnancy, childbirth or after birth, the following issues should be considered.

- What are the danger signs that indicate that care should be sought during pregnancy? During the birth (if the birth is taking place at home)? During the postnatal period for the mother and for the newborn baby?
- Where can the mother go to receive emergency care?

- How will she get there? Will she or her family have to pay for transport? How much will it cost? Is it possible to start saving for these costs now? (If not, what are the alternatives)?
- What costs will have to be paid at the health centre? How will this be paid for? Is it possible to start saving for these costs now? (If not, what are the alternatives)?
- Who will accompany the woman to the health facility?
- Who will help to care for the home and other children while their mother is away?
- Has a blood donor been identified in case they are needed?
- blurred vision;
- severe lower abdominal pain;
- rapid or difficult breathing;
- fever (over 38.5 °C) and severe fatigue.
- water breaks and labour is not induced within 6 hours;
- illness;
- unusually swollen face, fingers or legs.

Danger signs during childbirth

Complications may occur at the time of birth. If the birth is taking place at home cluster representatives and health volunteers should educate the woman and her family about the danger signs during birth and support them in seeking immediate care if any complications arise.

If a woman has any of the following signs she should go to a health centre or hospital immediately.

- water breaks and labour is not induced within 6 hours;
- labour pains (contractions) continue for more than 12 hours;
- heavy bleeding occurs after birth (pad/cloth is soaked in less than 5 minutes or soaks more than 2–3 pads in 15 minutes);

Danger signs in pregnancy

Problems and complications leading to high risks for the mother and baby can occur at any time during pregnancy. These complications require the assistance of a trained birth attendant. The following danger signs are indicative of complications.

A pregnant woman should go to the health centre or hospital immediately if any of the following signs appear.

- vaginal bleeding;
- convulsions, fits;
- severe and continued headache;



- placenta is not expelled within 1 hour of the birth.

If a baby has any of these signs, they must be taken to a health centre or hospital immediately.

- very small size;
- difficulty in breathing;
- fits;
- fever;
- feels cold to the touch;
- bleeding;
- unable to feed.

Danger signs for the mother after birth

Risks do not end with childbirth. Many risks may still arise after childbirth and at any time during the first 6 weeks. The most dangerous period is the first 72 hours following the birth. Cluster representatives and health volunteers should discuss with the mother and her family the possible danger signs and the need to go immediately to a health centre or hospital when danger signs occur. A woman should go to a health centre or hospital immediately if any of the following signs appear.

- vaginal bleeding has increased;
- fits;
- rapid or difficult breathing;
- fever and extreme fatigue;
- severe headaches with blurred vision;
- swollen, red or tender breasts or nipples;
- problems urinating, or leakage occurring;
- increased pain or infection in the perineum;
- infection in the area of the wound;
- smelly vaginal discharge.

Danger signs for the newborn baby

A significant proportion of newborn deaths occur at birth or within the first week of life, particularly on the first day. Cluster representatives and health volunteers should inform the mother and her family about the possible risks and danger signs and of the necessity of taking the baby immediately to a health centre or hospital when danger signs occur. A baby should be taken to a health centre or hospital immediately if any of the following signs appear.

- breathing difficulty;
- fits;
- fever;
- feels cold to the touch;
- bleeding and/or pallor;
- swelling on scalp;
- stops feeding;
- vomiting and/or abnormal abdominal distension;
- diarrhoea;
- feeding difficulty;
- feeding less than every 5 hours;
- eyes red, swollen or draining pus;
- irritated cord with pus or blood;
- umbilicus red and swollen, draining pus or foul smelling;
- yellow eyes or skin.

Birth and emergency preparedness card

The birth and emergency preparedness card is a very useful support tool that assists pregnant women and their families to be prepared for the birth and for the possibility of an emergency. Cluster representatives and health volunteers can refer to the card

already prepared with the health worker in antenatal care or assist the woman and her family to fill one out, if she does not have one already. While filling out the card it is important to discuss all the possible options with the woman and her family and to support them in selecting the solutions that suit them best. It is important to remind the woman to bring her card to every antenatal care visit so that the health worker can review it and make any changes required. It is also important that she bring the card with her for the birth or in the case of an emergency so that the trained birth attendant and other health workers can see

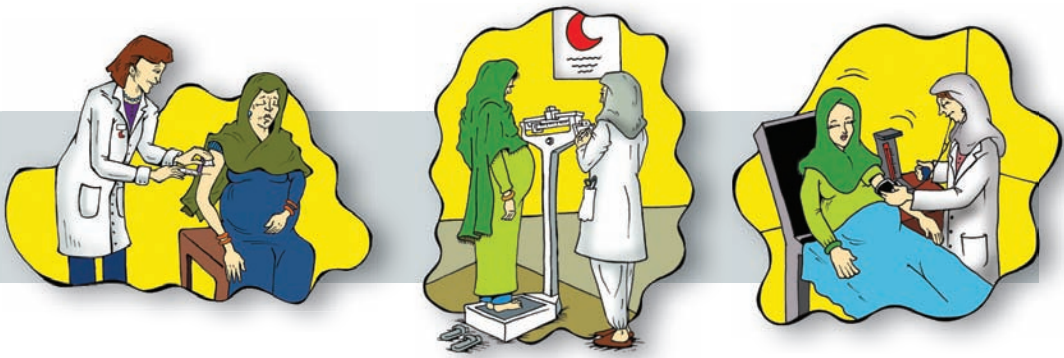
her preferences. Figure 1 is an example of a birth and emergency preparedness card.

Care during pregnancy

Every pregnancy deserves appropriate care. Women, their families and communities should be aware of the needs of the pregnant woman and of the appropriate level of care in the home. This includes proper nutrition, rest and hygiene. It also includes supporting the woman to seek the care of a trained birth attendant. A pregnant woman needs to be checked by a trained birth attendant at least four times during every pregnancy.

Name:		Age:
Address:		Date:
Expected date of childbirth:		
Name and address of local trained birth attendant:		
Nearest health facility:		
Activity	Indicate response	
Skilled birth attendant identified for birth:	-	
Preferred location for the birth:	-	
Health centre identified in case of emergency:	-	
Companion identified to accompany during birth, 24 hours after birth and in case of emergency:	-	
Support person identified for care of the home and children during birth or in case of an emergency:	-	
Transportation to the health centre identified including costs:	-	
Estimated costs of care in case of emergency identified:	-	
Arrangements made to cover costs:	-	
Supplies for birth:	-	
Possible blood donors identified in case of haemorrhage/emergency:	-	

Figure 1. Birth and emergency preparedness card



Essentials of an antenatal check-up

Care during pregnancy by a trained birth attendant can contribute to a safer pregnancy and healthy baby by:

- checking the progress of the pregnancy so that if problems arise the woman can go to a health facility for prenatal and childbirth care;
- detecting any complications, including high blood pressure, anaemia, bleeding, malpresentations and multiple pregnancies, which can be dangerous for the mother and the baby;
- advising on improved nutrition;
- checking for anaemia and providing regular iron and folic acid supplements;
- advising on preventive measures for malaria and distributing impregnated bednets in areas where malaria is prevalent and giving treatment for malaria, if necessary;
- giving two injections four weeks apart to protect the mother and her baby against tetanus;
- checking any infections during pregnancy, especially urinary tract infections and sexually transmitted infections, and referring or treating with antibiotics;
- counselling and testing for HIV;
- syphilis testing;
- deworming;
- assessing for female genital mutilation, where prevalent;
- supporting the woman and family in preparing a birth and emergency plan;
- advising on care in the home during pregnancy including nutrition, safer sex, rest, and discussing birth spacing and breastfeeding.



Basic principles of self care during pregnancy

Pregnancy represents a special time for a woman, her husband and the family. Cluster representatives and health volunteers should discuss with the pregnant woman and her family the required level of care in the home, including advice on the following.

- A pregnant woman requires the best food which is available. She should be encouraged to eat healthier foods, including fruit, green leafy vegetables, beans, meat, fish, eggs, cheese and milk.
- Iron and folic acid tablets should be taken every day to prevent and/or treat anaemia.
- All pregnant women should take more rest than usual throughout their pregnancy and they should avoid lifting heavy objects.
- A pregnant woman can damage her own health and the health of her baby by:
 - smoking or living in an environment where others smoke or from cooking fires or other chemicals or poisons;
 - by drinking alcohol;
 - by using narcotic drugs;
 - by taking medication not prescribed by a skilled health worker.
- A pregnant woman should sleep under an insecticide-treated bednet in areas where malaria is a problem.

Establishing links with the community

In addition to the family, there are many other people who can offer care and support to women during pregnancy and

birth, such as physicians, nurses, midwives, other health workers and women's groups, etc. Identifying these additional resources in advance can help to obtain the necessary support. Links already exist between the community-based initiatives (CBI) programme and these groups.

Cluster representatives and health volunteers can play an important role in establishing links, in sharing key information on maternal and neonatal health and discussing these issues, and the method of addressing them with community members and other stakeholders at community level. Cluster representatives can work with the community to review the reasons for delays in seeking skilled care or the barriers to women giving birth with a trained birth attendant present or to reaching health services in case of an emergency. Community members, nongovernmental organizations and women's groups, in addition to staff from health care facilities can discuss solutions to these problems and develop a plan to address them. Cluster representatives can also help in disseminating information on the danger signs so that community members can support families in recognizing these signs and in seeking care.

The role of cluster representatives and health volunteers in safe delivery planning

Table 1 explains the roles of cluster representatives and health volunteers in safe delivery planning (depending on their role in each country).

Table 1. The role of cluster representatives and health volunteers in birth and emergency planning

	Activities
Support to develop a safe delivery plan or review the plan prepared in the health facility	<p>Assist the pregnant woman and her family to review the safe delivery plan (or prepare one if one has not already been prepared during antenatal care visits with the health worker) through reinforcing information and providing support in identifying different solutions to prepare for the birth or an emergency</p> <p>Support the pregnant woman and her family in putting the plan into action</p> <p>Arrange for TT vaccination as per schedule</p> <p>Provide support in the necessary preparation in case of childbirth in the home</p> <p>Educate women, families and community members about the normal signs of labour and danger signs during pregnancy, birth and the postnatal period for the woman and her child</p> <p>Promote births assisted by a trained birth attendant</p> <p>Promote, advise and mobilize regarding appropriate care in the home, including nutrition, hygiene and rest</p>
Links with the community for providing support during childbirth and emergencies	<p>Analyse with community groups the different problems related to the use of the trained birth attendant at birth and to reaching care for an obstetric or neonatal emergency and work together to develop a plan with community members, health services, nongovernmental organizations and women's groups to address these problems</p> <p>Promote birth assisted by a trained birth attendant</p> <p>Educate women, families and community members about the normal signs of labour and danger signs during pregnancy, birth and postnatal period for the woman and her child</p> <p>Share key information on maternal and newborn health and work with different partners to ensure harmonized information for discussion with the community</p>

Annex 1

Pre- and post-test

The following test should be given to trainees before and after the training.

A. What are the elements that should be discussed in preparing a birth and emergency plan?

1. trained birth attendant
2. transport
3. necessary funds
4. necessary supplies
5. birth companion
6. all of the above

B. The danger signs during pregnancy are:

1. vaginal bleeding
2. bad cough
3. severe and continued headache
4. toothache
5. severe lower abdominal pain
6. rapid or difficult breathing
7. fever (over 38.5° C) and too weak to get out of bed
8. all of the above

C. The role of cluster representatives/health volunteers in planning for safe delivery is to:

1. help the pregnant woman and her family to review the safe delivery plan (or prepare one if not done during the antenatal care visits with the health worker) through reinforcing information and supporting them in identifying different solutions to prepare for birth or an eventual emergency.
2. support the pregnant woman and her family in putting the plan into action.
3. establish links with the community.
4. all of the above.

Unit 2

Birth spacing

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Birth spacing

Learning objectives

The objectives of this session are to enable cluster representatives and health volunteers to:

- understand and discuss the importance and benefits of birth spacing and the use of family planning methods;
- understand and discuss the importance of family planning during the postpartum period;
- be aware of available family planning methods and where to seek them.

Expected outcomes

After completion of this session cluster representatives and health volunteers will be able to:

- advocate for birth spacing and for the use of family planning methods to improve the health of women and newborn babies;
- identify which family planning methods are available in their area and provide basic information to women and families on the importance of birth spacing, available contraceptive methods and where to seek advice and services;
- advise women and encourage them to talk to their health worker about which method of family planning is the most suitable for them.

Introduction

It is important that during pregnancy a woman and her husband begin to think about birth spacing and which family planning method they wish to use. Family planning is about deciding how many children you want to have and at what time you want to have them. After a birth, the recommended interval before attempting the next pregnancy is at least 2 years. This will reduce risks for the mother and baby. A woman who is not fully or nearly exclusively breastfeeding can become pregnant as quickly as four to six weeks after childbirth. Cluster representatives and health volunteers can discuss with women and their families the benefits of spacing births for the health of the mother and the baby, as well as advise women and their husbands on talking to health workers about the different family planning methods that can be used after birth.

Birth spacing and postpartum family planning

Birth spacing should be discussed during the third trimester of pregnancy, after birth and in the immediate postpartum period with all women who have recently given birth, their husbands and families.

The health benefits of birth spacing

Birth spacing and family planning: saves lives of mothers and babies; reduces abortions and unwanted pregnancies; improves children's health, nutrition and development; increases equity among community members; and helps to preserve the environment. Women should wait for at least 2 years after giving birth before trying to become pregnant again. Spacing births is

beneficial for the health of the mother and the baby. Birth spacing allows the mother to recover physically and emotionally before she becomes pregnant again and faces the demands of another pregnancy, birth, breastfeeding and child care.

Birth spacing enables the proper planning of family resources for each child, and more time for the parents to dedicate to each child. Closely spaced and frequent births are often linked to poverty and overburdened family environments, which contribute to poor school performance through malnutrition and the inability of parents to provide attention to each child's needs.

Correct and consistent use of condoms as a family planning method can also prevent sexually transmitted infections, including HIV/AIDS. Correct and consistent use of condoms with another family planning method in every sexual encounter is the best way to ensure dual protection against unwanted pregnancy and sexually transmitted infections, including HIV/AIDS. Avoiding too early a pregnancy after marriage can provide younger women with the opportunity of completing their school education and high school or university studies. Older women (over 35) can avoid unwanted pregnancies that present an increased risk to their health and lead to increased complications.

Cluster representatives and health volunteers can also advocate the benefits of birth spacing and family planning to influential people in the community (e.g. traditional, religious and political leaders) in order that they understand the benefits of birth spacing and how it helps to improve the health and well-being of individuals and the community as a whole, and encourage its practice.



Family planning methods

Women, their husbands and their families need to know that a woman who is not fully or nearly exclusively breastfeeding can become pregnant as quickly as four to six weeks after childbirth. Several methods of family planning can be started immediately after birth, but others may need to be delayed if the mother is breastfeeding (Table 1, Annex 1).

There is no single method of family planning which should be recommended for everyone. Family planning counselling can help a woman and/or her husband choose which method best suits him or her. If a woman, preferably with her husband, is able to make an informed choice, she is more likely to be satisfied with the method chosen and continue its use. The main temporary family planning methods include: lactation amenorrhoea method (LAM) (if the



Figure 1. Methods of family planning

mother is exclusively breastfeeding, the baby is less than six months of age and her menstrual periods have not returned); condoms; combined pill; and mini pill. Injectables include: subdermal implants; intrauterine devices (IUD); diaphragms and cervical caps; and spermicides (Figure 1). Surgical family planning methods include vasectomy for men and female sterilization for women. Traditional methods of family planning include fertility awareness-based methods, including rhythm and withdrawal.

The role of cluster representatives and health volunteers in birth spacing

Cluster representatives and health volunteers should advise mothers and their husbands to discuss family planning with their health worker. There is no single method of family



planning which should be recommended for everyone. The health worker will discuss with the woman and her husband their specific needs, inform them of the different family planning methods which are available, and will counsel them in order that they can

choose the family planning method that best suits their situation. The health worker will check whether the woman is eligible to use the chosen method and will provide useful information about that method (Table 1).

Table 1. The role of cluster representatives and health volunteers in birth spacing

Role	Activities
Advocate the health benefits of birth spacing	Explain the health benefits of birth spacing to pregnant women and their families Discuss the benefits of birth spacing with community leaders and other influential people in the community
Advise mothers, their husbands and families to talk to health workers	Encourage women to see a family planning counsellor Discuss which types of family planning methods are available

Annex 1

Contraceptive methods

Table 1. Contraceptive methods

Method	Fully or nearly fully breastfeeding	Partially breastfeeding or not breastfeeding
Lactational amenorrhea method (LAM—exclusive breastfeeding)	Start immediately after childbirth; can use if these requirements are met: exclusively breastfeeding for up to 6 months or until menstruation returns	N/A
Copper-bearing intrauterine device (IUD)	Within 48 hours of childbirth, otherwise wait for 4 weeks	
Female sterilization	Within 7 days of childbirth, otherwise wait for 6 weeks	
Vasectomy	Immediately or during wife's pregnancy or at any time	
Levonorgestrel IUD	4 weeks after childbirth	
Combined pills (estrogen-progestogen)	From 6 months after childbirth	From 21 days after childbirth if not breastfeeding
Monthly injection (combined)		From 6 weeks after childbirth if partially breastfeeding
Mini-pill (progestogen-only)	From 6 weeks after childbirth	Immediately if not breastfeeding
Depot medroxyprogesterone acetate (DMPA) and norethisterone enantate (NET-EN) (3 or 2 month injection) (progestogen-only)		From 6 weeks after childbirth if partially breastfeeding
Implants		
Male or female condoms	From immediately after childbirth	
Spermicides		
Diaphragms	From 6 weeks after childbirth	
Fertility awareness-based methods	When periods return to normal	When periods return to normal

Annex 2

Pre- and post-test

The following test should be given to trainees before and after training.

A. Which one of the following sentences is correct?

1. A woman who is not fully exclusively breastfeeding can become pregnant as soon as four to six weeks after childbirth.
2. Women should wait at least two years after giving birth before trying to become pregnant again.
3. Birth spacing should be discussed during the third trimester of pregnancy, after birth and in the immediate postpartum period with all pregnant women, their husbands and family.
4. All of the above.

B. What age represents the optimum reproductive age for women?

1. Below 18 and above 35.
2. Below 18.
3. Any age.
4. Between 18 and 35.

C. Which one of the following sentences is correct?

1. Family planning can only save a mother's life and has nothing to do with improving children's health, nutrition or development.
2. One method of family planning can be recommended for everyone.
3. Pregnancy above the age of 35 can lead to increased complications for both mothers and babies.
4. All of the above are incorrect.

D. Put a tick (✓) or a cross (x) next to each statement depending on whether you agree with the statement or not

Statements	✓	x
1. Correct and consistent use of condoms as a family planning method can also prevent sexually transmitted infections, including HIV/AIDS.		
2. Health workers and volunteers should discuss the type of family planning methods which are available in their area.		
3. The health worker should check whether a woman is eligible to use the chosen birth control method and provide useful information about that method.		
4. Birth spacing allows the mother to recover physically and emotionally before she becomes pregnant again.		

Unit 3

Child health

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Child health

Learning objectives

The objectives of this session are to enable cluster representatives and health volunteers to:

- recognize infant and young child feeding-related optimal practices, namely, early initiation of breastfeeding, exclusive breastfeeding for 6 months and correct complementary feeding;
- recognize the danger signs of diarrhoea, acute respiratory infections and fever;
- explain the home management of diarrhoea and respiratory diseases in children.

Learning outcomes

After completion of this session cluster representatives and health volunteers will be able to:

- advise women on infant and young child feeding-related optimal practices to encourage early initiation of breastfeeding, exclusive breastfeeding for 6 months and correct complementary feeding;
- teach parents how to recognize the danger signs of diarrhoea, acute respiratory infections and fever;
- advise parents on the home management of diarrhoea and respiratory diseases in children.

Introduction

Child feeding is the core of child health. Diarrhoea and acute respiratory infections are the commonest childhood illnesses.

Breastfeeding

Breastfeeding is an ideal way of providing young infants with the nutrients they need for healthy growth and development. Virtually all mothers can breastfeed, provided they have accurate information, and the support of their family and the health care system. Colostrum, the yellowish, sticky breast milk produced at the end of pregnancy, is recommended as the perfect food for the newborn baby, and feeding should be initiated within an hour of birth. Exclusive breastfeeding is recommended up to 6 months of age (Figure 1).

Table 1 highlights the benefits of breastfeeding, and Table 2 provides information on complementary feeding.

Recognize signs of diarrhoea and acute respiratory infections

Diarrhoea

A child with diarrhoea should be closely observed for signs of dehydration, these include: sunken eyes; great thirst; skin goes back slowly when pinched.

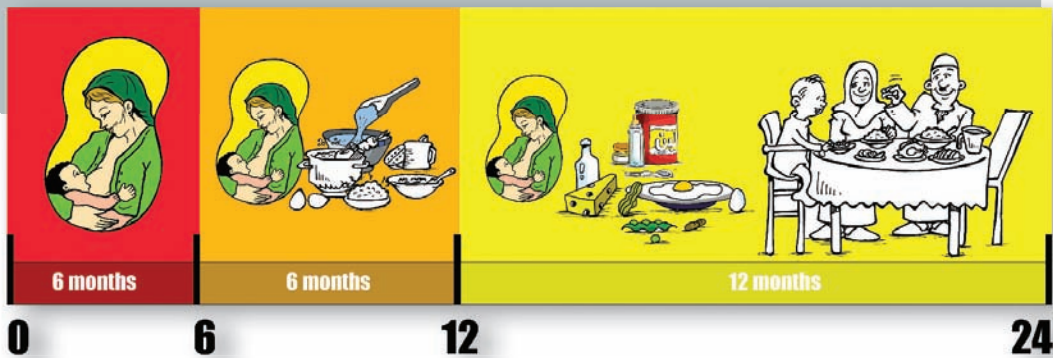
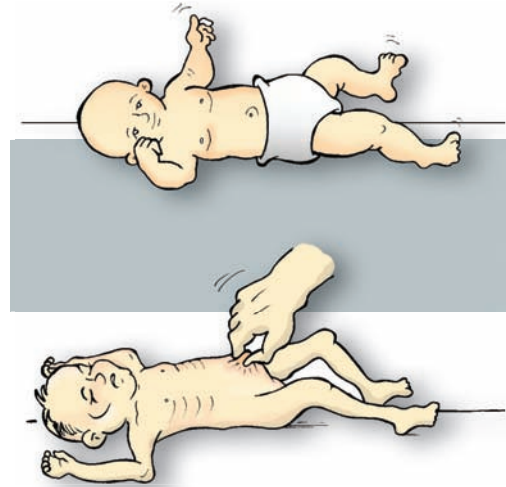


Figure 1. Recommended time-frame for breastfeeding and complementary feeding

Table 1. The benefits of breastfeeding

Messages	Reasons
Breast milk is the best food for babies	It contains all nutrients in a suitable form. It protects the baby from infection and malnutrition. Breastfeeding lowers maternal risk of haemorrhage after delivery, reduces the risk of breast and ovarian cancer and has many other advantages.
Breastfeeding should start within half an hour of delivery	Colostrum, the milk produced after delivery, should be given to the baby. It helps protect against infections and should be considered as the first immunization of the baby. If the baby is put to the breast immediately after delivery, the sucking helps the uterus to contract and thus reduces haemorrhage after delivery. The baby should suck as often as he/she wants, day and night, because frequent sucking is the best stimulus for milk production. The baby should breastfeed from both breasts. There is no need to give water to the baby. Correct frequent breastfeeding prevents breast problems such as sore nipples, engorgement and breast infection (mastitis).
Exclusively breastfeeding for the first 6 months of an infant's life	Exclusive breastfeeding means feeding the child only with breast milk, nothing else should be given to the infant, even water. Exclusive breastfeeding leads to reduction of childhood mortality and morbidity. Breast milk alone meets all the food and fluid requirements of an infant for the first 6 months of life. Infants should be breastfed on demand day and night at least eight times a day. Breast milk can still be given to a baby even if the mother is away from home as the breast milk can be expressed.

Table 2. Complementary feeding

Messages	Practices
When an infant reaches 6 months of age, food should be given in addition to breast milk.	Starting at approximately 6 months of age, feed infants freshly prepared energy and nutrient-rich complementary foods, while continuing to breastfeed for up to two years.
Breastfeeding should continue with complementary food until the infant reaches 2 years of age.	An infant should be given a variety of food to keep them healthy and to protect them from disease. Use foods that are available in the household and make sure that a variety of foods are given.

Diarrhoea usually improves within a few days. However, the real danger is loss of water and salt from the body, which are extremely important for the normal functions of the body. When signs of dehydration appear in a child, he/she should be immediately referred to the nearest health facility, however, at the same time, the home management of diarrhoea should begin in order that lost fluids are replaced until appropriate medical help is available. The best home treatment is use of an oral rehydration solution (ORS). This is extremely important and saves lives. Start giving a child ORS as soon as diarrhoea develops. Ensure that every household with small children keeps a few packets of ORS.

Refer the child urgently if you notice the following signs:

- blood in faeces;
- vomiting;
- sunken eyes;
- lethargy or unconsciousness;
- inability to eat or drink.

While arrangements should be made to seek medical care, continue giving fluids to the child. Drinks should be provided until the diarrhoea stops. If a child vomits, wait for 10 minutes and then begin again. Do not give any tablets, antibiotics or other medicines to stop diarrhoea.

Acute respiratory infections

Refer a child immediately to hospital if the child (Figure 2):

- is breathing more quickly than usual;
- is breathing with difficulty or gasping for air;
- has had a cough for more than two weeks.
- is unable to breastfeed or drink;
- vomits after eating;
- has high fever, in addition to a cough.



Figures 2. Signs of acute respiratory infection

If the lower part of the child's chest sucks in when the child breathes in, or it looks as though the stomach is moving up and down, refer the child immediately to hospital.

Home care for diarrhoea and acute respiratory infections

Since the 1980s diarrhoeal diseases have been greatly reduced due to the success of control of diarrhoeal disease programmes. This success can be attributed to consistent promotion of standard case management in health facilities, local production and wide use of ORS and increased awareness among families of how to correctly manage cases at home, with special emphasis on continuing feeding of children during illness. An important tool in reducing mortality as a result of diarrhoea has been the conducting of social marketing of ORS and implementation of community-based interventions. Table 3 provides instructions for breastfeeding a child with diarrhoea. Table 4 highlights preventive measures to avoid acute respiratory infections.

Table 3. Breastfeeding a child with diarrhoea

Messages	Reasons
Continue giving breast milk to a young child with diarrhoea. Mothers should breastfeed their infant more frequently if the child is suffering from diarrhoea.	Breast milk is nutritious and clean and helps fight against illness and infection. An infant who is fed only breast milk is unlikely to get diarrhoea. Breast milk prevents dehydration and helps replace lost fluids and improves nutrition.
Give extra fluids, including oral rehydration solution and an extra meal.	A child with diarrhoea loses weight and can quickly become malnourished. A child with diarrhoea needs all the foods he or she can take. Food can help a child to recover quickly from diarrhoea. However, feeding may be difficult as a child with diarrhoea may not be able to eat or may vomit. If a child is 6 months or older, encourage him/her to eat as often as possible. Give small meals of soft food, which are easier to eat.

Table 4. Preventive measures to avoid acute respiratory infections

Messages	Preventive measures
<p>If a child has a fever, sponge or bath them with water. Do not use very cold water.</p> <p>The nose of a child with a cough or cold should be cleared frequently.</p> <p>Breastfeed a child as breastfeeding is important to fight infections and improve nutrition.</p> <p>Children who are not breastfed should be encouraged to eat or drink small amounts frequently.</p> <p>After recovery, a child should be given one additional meal for at least a week.</p> <p>Keep infants warm as they lose heat from their body easily.</p>	<p>People with a cough or cold should avoid coughing, sneezing or spitting near children. Sputum should be collected and carefully disposed of.</p> <p>Ensure breastfeeding as it strengthens the body's defences against infections, including acute respiratory infections.</p> <p>Vitamin A helps protect against severe respiratory infection. Give a child food rich in vitamin A, such as breast milk, liver, fish, meat, eggs, green leafy vegetables, dairy products or vitamin A supplements. Vitamin A capsules can be given by a health worker.</p> <p>All childhood immunizations should be completed before a child is one year of age. Measles immunization protects against measles, which can cause pneumonia. Immunization can also provide protection against whooping cough and tuberculosis.</p> <p>Keep children away from smoke including cigarette, cooking and other household smoke.</p>

How to prepare an oral rehydration solution

If an ORS is available, ensure the safety of the water by boiling and cooling it before preparing the solution. Add the contents of one ORS packet to four glasses of water and stir well before use. Do not add sugar as the ORS already contains sugar. Use the correct amount of water as too little water will make the diarrhoea worse. Do not boil the water once the ORS has been added. A 27.5 mg solution requires four glasses of water (approximately 1 L) (Figure 3). Do not add an ORS to milk, soup, fruit juices or soft drinks. Stir well and feed the solution using a clean cup, do not use a bottle. Do not keep any prepared solution for more than 18 hours, always prepare a fresh solution.

Encourage a child to drink as much as possible. The following measures are recommended:

- Child under two years of age: $\frac{1}{4}$ to $\frac{1}{2}$ cup of solution, after each loose stool.
- Child between 2 and 9 years of age: $\frac{1}{2}$ to one cup after each loose stool.
- More than 10 years of age and adults: as much as is wanted.

Recommended foods and fluids for a child with diarrhoea

If a child is less than six months old and exclusively breastfed, he/she will rarely get diarrhoea. However, breastfeeding should be maintained and breast milk given as frequently as possible. A child aged six months or older with diarrhoea may be given the following foods, five or six times a day:

- breast milk more often than usual;
- soups;
- rice water;
- mashed vegetables, well cooked meat, fish, yogurt, cereals.

If a child is six months of age or older, in addition to the breast milk, they may be given clean drinking-water treated with chlorine or boiled or ORS.



Figure 3. How to prepare an oral rehydration solution

Annex 1

Pre- and post-test

The following test should be taken by trainees before and after training.

1. List the benefits of breastfeeding to mothers, children and families?
2. List the signs of dehydration.
3. How do you prepare an ORS?
4. When would you refer a child with diarrhoea to a doctor?
5. How can respiratory illnesses be prevented?
6. When would you refer a child with acute respiratory illness to hospital?

Unit 4

Nutrition

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Nutrition

Learning objectives

The objectives of this session are to enable cluster representatives and health volunteers to:

- understand the causes of malnutrition among children and pregnant and lactating women;
- recognize the special nutritional needs of children and mothers;
- identify early signs of malnutrition among children and mothers;
- understand the importance of conducting growth-monitoring of young children.

Expected outcomes

After completion of this session cluster representatives and health volunteers will be able to:

- advocate and promote good nutritional practices among mothers and children;
- build community awareness about the underlying causes of malnutrition among children and pregnant and lactating women;
- conduct monthly weighing and growth-monitoring of children under 2 years of age;
- refer suspected cases of malnutrition to health facilities;
- collaborate between health facilities and the community on deworming activities and ensure the provision of micronutrient supplementation (vitamin A, iodine, iron, folic acid).

Introduction

Malnutrition is responsible for more than half of under-5 child mortality. Approximately one third of infants worldwide are exclusively breastfed during the first six months of life and complementary feeding frequently begins too early or too late. Individuals suffering from malnutrition who survive experience long-term complications, such as diminished learning capacity and lower productivity in adulthood.

Nutrition for children and pregnant and lactating women

Malnutrition can be either generalized or due to deficiencies of micronutrients, such as vitamin A, iron, folic acid and iodine. Generalized malnutrition causes low body weight for age or height, while a lack of vitamins or other micronutrients causes a variety of physical and mental problems. Malnutrition often begins at conception, when a pregnant woman may consume an inadequate diet, have an excessive workload, or experience frequent illness. Under these circumstances, women give birth to smaller babies with a variety of health problems. Children born to malnourished mothers are more likely to die before reaching one year of age. If they do survive by the second year of life they may have permanent or temporary damage. Pregnant women, breastfeeding mothers and children under 2 years of age should be priority target groups for nutrition interventions.

The health and nutritional status of mothers and children are linked. Improved infant and young child feeding begins with ensuring the good health and nutritional status of the mother. Diseases and inadequate dietary intake are the immediate causes of malnutrition among most individuals but there are also other causes, such as

insufficient access to food due to poverty or lack of resources, inadequate maternal care and child care and a lack of clean water and sanitation.

Exclusive breastfeeding

Exclusive breastfeeding means only giving an infant breast milk during the first six months of life and no other liquids or solids during this time, including water. Breast milk is a safe, hygienic source of energy, nutrients and fluids. It contains substances and vitamins that protect children against diarrhoea and other common infections. No other substance provides a nourishing, germ-free, antibiotic and digestible alternative to milk. It also contains all the water a baby needs. The baby does not require extra fluids.

During the first six months of a baby's life, breastfeeding should be unrestricted and the baby should be given breast milk day and night as often as they want. This may include giving the infant expressed mother's milk from a cup if the mother is not present.

Complementary feeding and continued breastfeeding

Breastfeeding should be continued until the infant is at least 2 years of age. However, in order to grow and to stay healthy, children need complementary feeding in addition to breast milk between 6 and 24 months of age (Figure 1). This is the time when the risk of diarrhoea and other infections is the greatest and children need to be properly fed. Complementary feeding includes a combination of breast milk and complementary foods, such as mashed vegetables, a small amount of chopped meat, eggs, fish, pulses, grains and fruit, which are hygienically prepared and fed

to the child with clean hands using clean utensils.

It is important to remember the following points.

- A child's stomach is smaller than an adult's stomach so a child is unable to eat as much at one meal.
- Children's energy and body-building requirements are substantial. It is therefore important that children eat frequently to provide for all their nutritional needs.
- If meals are served in a common dish, younger children may not get enough food. Young children should have their own plate or bowl of food to ensure that they can eat what they need and so that parents can see how much they have eaten.
- Even a few days of not eating properly can cause nutrition problems.
- Mothers should encourage the child, through hugging, smiling, playing and giving 'rewards' for eating more during each feed.
- Forced feeding, such as pouring or pushing food into the mouth can be dangerous and should always be avoided.
- Young girls need the same amount and quality of food as young boys and should not be discriminated against.

Care of a sick malnourished child

Childhood diseases, such as diarrhoea, pneumonia, measles, malaria and fever, weaken a child and result in a loss of appetite and low intake of food. If this happens several times a year, the child's growth will slow or stop.

It is important to screen the child visually to look for signs of severe malnutrition. If you recognize these signs in a child, the child should be referred immediately to a health centre. Severe malnutrition is a medical emergency. If a child is suffering from malnutrition they will look very thin and have little body fat or muscle. The child's ribs will be clearly visible. If a child has oedema (swelling of both feet), press gently the upper top side of each foot for a few seconds to ensure that the swelling is due to collection of fluids. If a dent remains when you remove your thumb, this confirms that the child has oedema.

It is essential to encourage a sick child to eat. It is important to keep offering the child

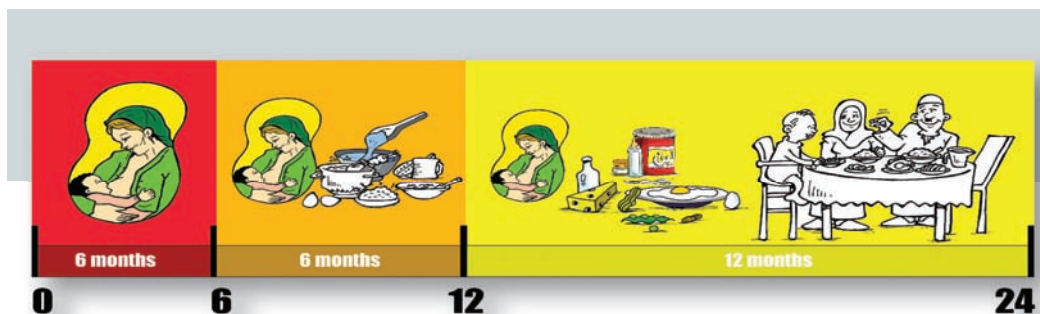


Figure 1. Recommended time-frame for breastfeeding and complementary feeding



food that they like. They should be given a little at a time and as often as possible. Extra breastfeeding is essential. Without appropriate supplementation, many children with common diseases of childhood die or become disabled or severely malnourished.

It is essential to encourage a sick child to also drink as often as possible. Drinking plenty of liquids will help to prevent dehydration, which is in itself a serious problem. After an illness, children need at least one extra meal everyday for at least a week.

Pregnant and lactating mothers

Nutritional requirements increase during pregnancy and when a woman is breastfeeding. It is important that women eat a sufficient quantity of food during this period. Inadequate or inappropriate nutrition of mothers results in the poor physical and mental growth of the fetus and poses a greater risk to the fetus during pregnancy and childbirth.

Family members, such as husbands and mothers-in-law, should be encouraged to

persuade women to eat enough nutritious food, particularly during pregnancy and childbirth. The diet of pregnant women should contain milk, meat, eggs, leafy vegetables, beans, lentils and fruit.

After delivery women should be encouraged to practise birth spacing to enable them to breastfeed their babies and to build up their body stores for future pregnancies. Ensure that lactating mothers choose an appropriate contraceptive method to control birth spacing after receiving counselling from medical staff. Young pregnant women and mothers who are lactating and carrying out strenuous physical activities should eat energy-dense food.

Pregnant women need special care during pregnancy and child birth and it is important to look out for the following signs.

- height less than 145 cm;
- weight less than 45 kg;
- weight gain during the pregnancy: less than 1.5 kg per month from the fourth to seventh month of pregnancy or less than 10 kg during the full course of the pregnancy.

Micronutrients

Micronutrients are substances which are required in very small amounts; they are essential for the normal physical and mental development of the body.

Vitamin A

Vitamin A is essential for human health, especially for children, adolescents and pregnant and lactating women or those of childbearing age. Until children reach six months of age, breast milk provides them with all the vitamin A that they need provided that the mother has enough vitamin A in



Figure 2. Child with vitamin A deficiency

her diet. Children aged six months and older need to obtain vitamin A from other foods or supplements. When children do not have enough vitamin A, they are at risk of night blindness (Figure 2). If a child has difficulty seeing in the early evening and at night, they are probably suffering from vitamin A deficiency.

The child should urgently be given vitamin A to protect them from becoming permanently blind. Vitamin A can be found in liver, eggs, dairy products, fish liver oil, mangoes, green leafy vegetables and carrots.

The following actions should be taken by cluster representatives and health volunteers to encourage the intake of vitamin A.

- Promote daily intake of vitamin A-rich foods, particularly for young children and women.
- Encourage adequate exclusive breastfeeding of infants and breastfeeding for 2 years with complementary feeding.

- Ensure that all sick children suffering from diarrhoea, measles and severe malnutrition for prolonged periods receive vitamin A supplementation.
- Identify cases of night blindness among children and women.
- Assist health workers in the provision of vitamin A supplementation to children aged between 6 months and 5 years. In some countries vitamin A capsules are given with immunization schedules.

Iodine

Very small amounts of iodine are essential for normal growth and development and for the functioning of both the brain and the body. If a child does not receive enough iodine, or if a child's mother has an iodine deficiency during pregnancy, the child is likely to be born with a mental impairment, hearing or speech disability, or may experience delayed physical or mental development.

Goitre, which is a swelling of the neck, is the most visible sign of a shortage of iodine in the diet. A pregnant woman with goitre is at high risk of miscarriage, stillbirth or of giving birth to a child with brain damage.

Using iodized salt instead of ordinary salt provides pregnant women and children with as much iodine as they need. Iodine in salt can be destroyed by prolonged exposure to direct sunlight and moisture, so it is important to store iodized salt in an airtight container made of plastic, wood, glass or clay.

The following actions should be taken by cluster representatives and health volunteers to encourage the intake of iodine.

- Promote the use of iodized salt through enhanced awareness and advocacy.
- Ensure that only iodized salt is sold in the local market. During meetings with

the village development committee encourage them to convince the consumer that only iodized salt should be bought for household use.

- Identify all cases of goitre and refer individuals with goitre to a health centre.
- Ensure that all children and pregnant women use iodized salt.

Iron and folic acid

A lack of iron and folic acid in the body causes anaemia. Anaemia can affect physical and mental development. Symptoms of anaemia include paleness of the tongue, palms of the hands and inside of the lips, tiredness and breathlessness. Anaemia is a significant cause of maternal mortality as it increases the severity of bleeding during pregnancy and childbirth. Infants born to mothers with anaemia are of low birth weight and have anaemia themselves. Iron and folic acid supplements for pregnant women protect both the mother and her baby during pregnancy.

Iron is found in liver, meat, eggs and pulses and green leafy vegetables. Iron and folic acid tablets should also be used by pregnant women. Malaria and parasitic worm infestations are two dangerous conditions that can result in, or worsen, anaemia. Contracting malaria can be avoided by sleeping under a bednet to prevent mosquito bites. Good hygienic practices, such as washing hands before eating, drinking safe drinking-water, using latrines for defecation, not playing near latrines and wearing shoes prevents against parasitic worm infestations. In areas where worms are common, children should be given deworming medication between 2 and 3 times a year to get rid of the infestation.

The following actions should be taken by cluster representatives and health volunteers

to encourage the intake of iron and folic acid.

- Identify children and women with anaemia through the recognition of symptoms such as paleness of the tongue, palms of the hands and inside of the lips, tiredness and breathlessness.
- Refer individuals suspected of suffering from anaemia to a health centre and ensure affected individuals receive regular and sufficient iron and folic acid supplements.
- Promote iron-rich foods, particularly for women of reproductive age, infants and young children.
- Ensure that all pregnant women attend antenatal care clinics and are checked for anaemia during these visits.
- Promote and ensure the use of mosquito bednets for all pregnant women and young children.
- Assist health workers with deworming activities when required.
- Ensure that pregnant women take deworming medication after the third month of pregnancy, if needed.

Growth-monitoring and promotion

Maintaining a growth-monitoring chart

Maintain a growth-monitoring chart for all children under 5 years of age. A growth-monitoring chart is instrumental in monitoring the growth of children. Cluster representatives and health volunteers can be trained to weigh children under 2 years of age every month. The weight and age should be marked with a dot on the growth chart each time the child is weighed, and the dots should be connected after each weighing. This will produce a line which shows how well a child is growing. If the line

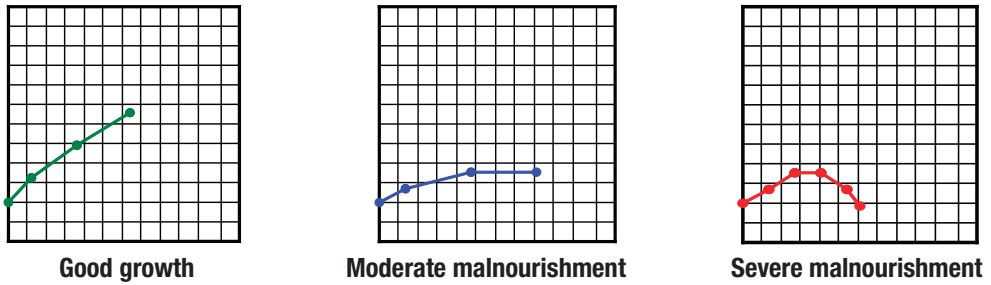


Figure 3. Maintaining a growth-monitoring chart

goes up, the child is doing well (coloured in green). A line that stays flat shows moderate malnourishment (coloured in blue), and if the line goes down it indicates that a child is severely malnourished (coloured in red) (Figure 3).

Cluster representatives should assess the nutritional status of children and share the information with the mother. Health workers should identify the underlying cause of malnutrition through discussions with the mother. All children with a severely malnourished nutritional status should be referred to a health centre immediately. All children with moderate and severe malnutrition should be frequently visited and followed up. The results of the growth-monitoring should be discussed in community meetings or women's groups and adequate action and support should be planned.

If a child is not growing sufficiently, check the following.

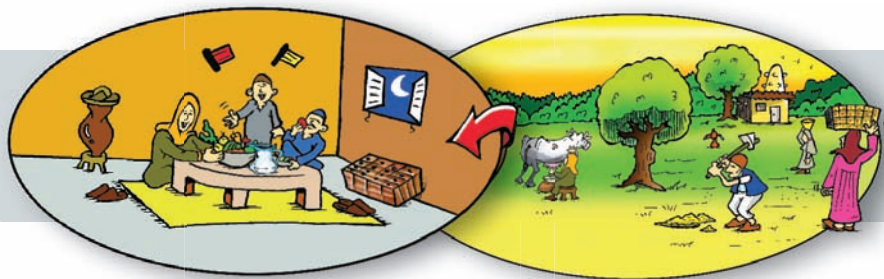
- Is the child receiving enough food?
- Is the child eating enough?
- Does the child's food have too little nutritious value?
- Is the child refusing to eat?
- Is the child sick?

- Is the child receiving enough vitamin A?
- Is the child being given formula milk by bottle?
- Are food and water and utensils kept clean?
- Are faeces put down a latrine or buried?
- Is the child left alone much of the time while feeding?

Food-promoting home gardening

Limited access to food due to poverty is an important cause of poor nutritional standards among children and pregnant women. Cluster representatives and health volunteers should raise awareness and advocate home gardening, which will provide a sufficient and diverse supply of micronutrient-rich foods throughout the year. Cluster representatives can seek the help of an agricultural department and demonstrate improved agricultural methods and practical training for household gardening.

Most household gardens yield surplus food that may be sold for additional income enabling families to reduce their level of poverty. Eggs, poultry and other sources of animal foods carrying more nutritious value can also be integrated into the programme.



The role of cluster representatives and health volunteers in promoting nutrition

The following actions should be taken by cluster representatives and health volunteers to promote good nutrition and to address problems of malnutrition.

Maternal nutrition

- Screen for severe anaemia and refer individuals suspected of suffering from anaemia to a health facility.
- Ensure all pregnant women receive iron and folic acid supplementation.
- Promote adequate diets and reduced workloads for women during pregnancy and following delivery.
- Monitor weight gain during the last six months of pregnancy.
- Identify and refer individuals suspected of suffering from night blindness to a health facility.
- Ensure women receive vitamin A supplementation.
- Identify and refer cases of goitre to a health facility.
- Ensure the use of only iodized salt in the home and its sale in the market.
- Promote the practice of early breastfeeding within 30 minutes of birth.

- Encourage birth spacing for at least 2–3 years.
- Promote the use of clean drinking-water, good sanitation and personal hygiene.
- Ensure deworming medication is taken if needed;
- Promote the use of insecticide-treated bednets.

Child nutrition

- Advocate effective and exclusive breastfeeding to mothers.
- Assess complementary feeding practices and promote continued breastfeeding for at least 2 years;
- Ensure that all children aged between 6 months and 5 years receive vitamin A supplements every 4 to 6 months;
- Ensure that iron supplementation is given to all low-birth-weight infants starting at 2 months, and to all infants up until 6 months of age.
- Discourage the use of formula milk, bottles, pacifiers, etc.
- Screen for oedema/wasting/pallor/night blindness and refer to a health facility.
- Weigh all children monthly to ensure that they are growing properly.
- Identify moderately and severely malnourished children, counsel the mother and refer the child for treatment.

- Teach mothers the correct position for breastfeeding.
- Ensure that children are immunized, including measles vaccination.
- Promote the use of clean drinking-water, good sanitation and personal hygiene.
- Ensure deworming medication is taken if needed.
- Ensure children are given iodized salt.
- Promote the use of insecticide-treated bednets.

Annex 1

Questionnaires

Table 1 shows a personal details recording form. Cluster representatives can carry out a simple survey to gain information on nutrition services available to a community (Table 2). The training facilitator should train cluster representatives and health volunteers to carry out this survey and to analyse and use the results for planning purposes.

Table 1. Recording personal details

Personal details
Name:
Address:
Age:
Occupation:
Number of children under 2 years of age:

Table 2. Questionnaire to assess maternal nutrition services

Prenatal care	Yes	No
Do you attend/receive antenatal care visits?		
Do you receive iron/folic acid tablets?		
Do you receive adequate information on diet, iron intake and breastfeeding?		
Do you use iodized salt in your food?		
Do you sleep under an insecticide-treated bednet?		
Delivery and postpartum care		
Have you been supported in initiating the practice of breastfeeding soon after delivery?		
Did you receive birth-spacing counselling in order to choose a contraceptive method which does not interfere with breastfeeding?		
Have you received vitamin A supplements?		
Have you been counselled on adequate exclusive breastfeeding?		
Have you received medication for deworming?		

Table 3. Questionnaire to assess child nutrition services

Questions	Yes	No
Have you been counselled on practising effective and adequate exclusive breastfeeding for the first six months of your child's life?		
For working mothers: Have you been taught how to express your breast milk to be given to your baby while you are out?		
Have you received counselling on adequate complementary feeding to ensure that children aged between 6 and 24 months receive food supplements in addition to breast milk?		
Have you been taught/counselled on the breastfeeding position and lactation management skills?		
Have you ever been advised against the use of formula milk, bottles, pacifiers, etc?		
Have you been advised, or have you received, vitamin A supplementation for children aged 6 months to 5 years, repeated every 4 to 6 months?		
Have you been advised, or have you received, iron supplementation for all infants?		
Has your sick child been screened for visible wasting/oedema/palmer pallor, night blindness, diarrhoea and measles?		
Has your sick child been referred for visible wasting/oedema/palmer pallor, night blindness, diarrhoea and measles?		
Is your child weighed regularly?		
Have you received advice on the use of iodized salt for your children?		
Has your child completed his/her immunizations, including measles?		
Have you been counselled on the use of clean drinking-water, good sanitation and personal hygiene for ensuring good health for your child?		
Has your child received deworming medication?		
Does/Do your child/children sleep under an insecticide-treated bednet?		

Annex 2

Pre- and post-test

The following test should be taken by trainees before and after training.

A) Which one of the following sentences is not correct?

1. Pregnant women who take inadequate food, work hard and are frequently ill, give birth to malnourished babies.
2. Insufficient access to food due to poverty, no access to maternal and health care services and unsafe water and sanitation are the main causes of malnutrition at the household and family level.
3. Exclusive breastfeeding means giving the infant only breast milk with some water or other liquids, during the first three months of age.
4. Breast feeding in the first six months of life should be unrestricted and as often as the infant wants.

B) Which one of the following groups are target groups for nutritional interventions?

1. Pregnant and breastfeeding mothers.
2. Children under two years of age.
3. Women who have given birth to low-birth-weight babies.
4. All of the above.

C) Which piece of advice would you give to the mother of a child of 8 months who had moderate diarrhoea?

1. Stop breastfeeding and giving fluids.
2. Continue breastfeeding and give the baby more water and fluids.
3. Stop food and watch the baby's status.
4. There is no need to do anything except watch the baby carefully.

D) Which one of the following sentences is not correct?

1. Breast milk provides children under 6 months of age with all the vitamin A they need.
2. Goitre (a swelling of the neck), is the most visible sign of a shortage of iodine in the diet.
3. Weigh all children under two years of age every 6 months to ensure that they are growing properly.
4. Iron is found in liver, meat, eggs and pulses and green leafy vegetables but all pregnant women need iron and folic acid tablets during pregnancy.

Unit 5

Dental hygiene

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Dental hygiene

Learning objectives

The objectives of this session are to enable cluster representatives and health volunteers to:

- understand the importance and function of our teeth and gums;
- understand the cost and damage caused by inadequate dental hygiene;
- recognize the signs and symptoms of tooth decay and gum disease;
- acknowledge the role of the community in promoting dental health awareness, including the importance of preventing diseases of the teeth and gums.

Expected outcomes

After completion of this session cluster representatives and health volunteers will be able to:

- improve the community's knowledge of the importance and function of our teeth, gums and dental hygiene;
- deliver basic dental hygiene education sessions to the target community;
- give particular dental health advice for pregnant women, newborn infants, children, adolescents and older people;
- recognize when it is necessary to refer an individual to a dental clinic.

Introduction

There are two types of dental disease: tooth decay and gum disease. Tooth decay and gum disease are caused by unhealthy dental hygiene behaviour and the environment (not all individuals have access to safe drinking-water and this will affect their dental hygiene). Tooth decay and gum disease affect what an individual may be able to eat and the appearance of the mouth. They cause pain and consequently affect an individual's quality of life. Dental decay is the most common chronic disease of childhood, 60%–90% of schoolchildren worldwide have dental cavities (holes or structural damage in the teeth). Severe gum disease affects 5%–20% of adults, it is the leading cause of tooth loss in adults.

To restore dental cavities and to treat severe gum disease is expensive, so it is important to target prevention of tooth decay and gum disease through dental hygiene health education and by taking simple preventive measures to prevent diseases of the oral cavity (Figure 1).

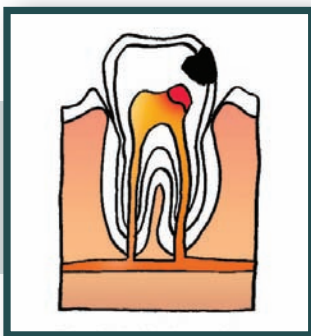


Figure 1. Mechanism of tooth decay and gum disease

The function of the teeth

The function of our teeth is to chew food by cutting and grinding, to aid the correct pronunciation of words and to also serve an aesthetic role.

Types of teeth

Milk teeth

A child has 20 milk teeth. The formation of the milk teeth starts in the fetus's jaw in the fourteenth week of pregnancy. The teeth start to come through when the child is approximately 6 months old and by the age of 33 months old, a child usually has all their milk teeth.

Permanent teeth

An adult has 32 permanent teeth. They start to form in the jaw when a child is approximately 3 to 4 months old and the teeth come through when a child is about 6 years old. By the time a child is 13 years old all their teeth have usually come through with the exception of the wisdom teeth which usually come through between the ages of 18 and 25 years. The permanent teeth, which are known as molars, are very important because they come through at a young age (6 years) and can easily be mistaken for milk teeth because they do not come through in place of milk teeth and parents often believe they are new milk teeth.

The structure of a tooth

A tooth comprises three parts (Figure 2):

- the crown is the visible part of the tooth in the mouth.
- the root is the imbedded part of the tooth in the jaw bone.

- the pulp is the space inside both the crown and the root that carries the blood and nerve supply to the tooth.

Bacteria

Our mouth is home to millions of disease-causing organisms called bacteria. These bacteria feed on the food left over in our mouths, especially sugar, and they turn it into acid. The acid forms a sticky, soft white coating called plaque on the teeth's surface. As it builds up, the acid in this coating eats away the minerals on the teeth's surface and form holes which decay the teeth. The more frequently this happens, the faster and more frequently holes will develop.

The bacteria in plaque also causes gum inflammation; the gums become red, swollen and bleed easily. If the plaque layer is not removed by brushing, it hardens and is known as tartar. This can only be removed by a dentist.

The signs and symptoms of tooth decay include:

- visible soft plaque deposits;
- brownish roughness;
- holes in the teeth;

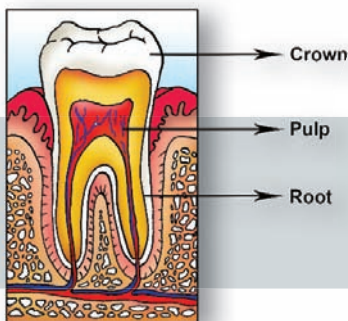


Figure 2. Tooth structure

- toothache on chewing and/or on drinking cold or hot fluids; and
- bad mouth odour.

The signs and symptoms of inflamed gums include:

- dark red puffy gums;
- visible soft plaque deposits or hard tartar;
- blood or fluids discharged on brushing or chewing food;
- bad mouth odour;
- toothache;
- bone loss around the tooth leading to tooth mobility and loss.

Good dental health

For good dental health you should:

- brush your teeth twice a day with a soft bristle toothbrush and fluoride toothpaste;
- eat a healthy diet and increase consumption of fruit and vegetables as they are rich in fibre and act as a self cleanser;
- avoid sugary snacks and drinks or consume them less frequently;
- visit your dentist on a regular basis;
- not smoke or chew tobacco. Tobacco can cause gum disease/tooth loss, oral cancer, stains, black discolouration of the tongue and oral tissues, delayed wound healing, bad breath and altered taste and smell sensation.

Brushing the teeth

We need to brush our teeth to remove food debris and plaque from the teeth's surface to prevent tooth decay and gum disease. Brushing with fluoride toothpaste supplies the teeth's surface with fluoride. Correct brushing controls bacterial plaque, improves

dental hygiene and prevents bad breath (Figure 3).

When to brush

You should brush your teeth at least twice a day, preferably after meals, and it is extremely important to go to bed with a clean mouth as the bacteria thrive during the hours of sleep in the dark, moist, warm climate of the mouth.

How to brush your teeth

- 1) Wet your toothbrush.
- 2) Apply a pee-sized amount of toothpaste on your toothbrush. Remember it is the toothbrush strokes that mainly clean the teeth; the toothpaste facilitates the brushing and supplies the teeth's surface with fluoride.
- 3) Place the toothbrush on the side of the gum at an angle of 45 degrees facing the gum line. The brush will face up for the upper teeth and down for the lower jaw. Move the brush up and down.
- 4) For children, the easiest way is to teach them to brush in a circular motion on the outer surfaces of their teeth.

- 5) Brush the inner surface, outer surface and chewing surface of both the upper and lower teeth.
- 6) Avoid horizontal strokes with a lot of pressure as this will cause trauma to the gums.
- 7) Gently brush the upper surface of the tongue.
- 8) Spit out any left-over toothpaste, do not swallow it.
- 9) Do not share your toothbrush with another person as it can spread germs.
- 10) Change your toothbrush every three months, or after an illness to avoid re-infection.

Flossing

Why flossing is important

Brushing the teeth cleans the outer surfaces of the teeth effectively but does not clean well between the teeth. Plaque often accumulates in these places leading to teeth decay and gum disease. Dental floss removes plaque from between the teeth and below the gum line reducing the chance of tooth decay and gum disease.

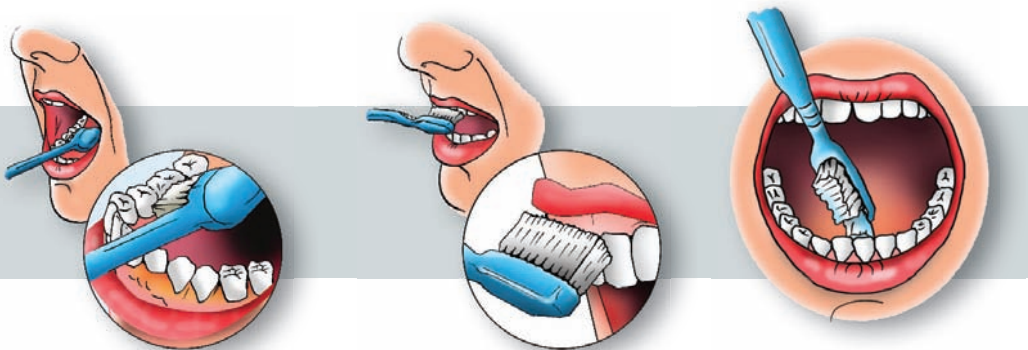


Figure 3. Correct brushing technique

When to floss

Although it is believed that flossing should take place after brushing, it is actually better to floss before brushing to remove the plaque, so that the fluoride in the toothpaste used during brushing reaches the surfaces between the teeth. Also, if the teeth are brushed first, the mouth feels clean and people feel less need to floss (Figure 4).

How to floss

- 1) Pull out about 40 cm of dental floss.
- 2) Wrap it around your middle finger. Pull tightly using the thumb for the upper jaw and the index for the lower jaw, leaving around 2 cm between the finger tips.
- 3) Insert the floss between the teeth and move it lightly back and forth. Form a 'U' shape around the teeth and clean this space with up and down movements and then clean the neighbouring teeth.
- 4) Repeat again with all teeth.

Dental hygiene education

Pregnant women

There is a misconception that pregnancy causes dental decay and gum inflammation, dental decay may increase during pregnancy but it is always as a result of previous decay, inadequate dental hygiene during pregnancy, a change to a sugary diet as a result of cravings of pregnancy or snacking more frequently to control nausea.

There is another misconception that pregnancy results in loss of calcium from the mother's teeth but minerals in the teeth are not affected at all during pregnancy, it is the minerals in the bone that can be affected.

Due to increased female sex hormones during pregnancy, the gums show an exaggerated response to the presence of plaque, tartar or an existing crown.

When providing pregnant or lactating women with dental hygiene education, you should:

- reinforce the importance of good brushing;

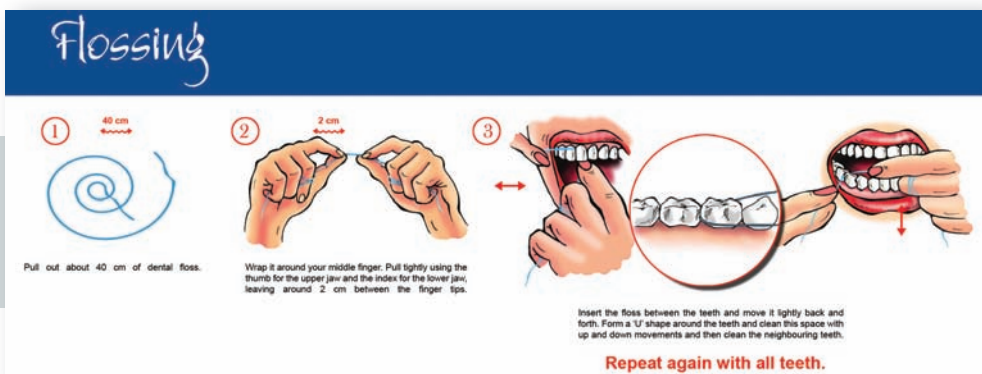


Figure 4. Correct flossing technique

- explain the importance of having a well-balanced diet;
- explain the negative effects of tobacco use;
- explain that morning sickness with vomiting exposes the teeth to very high acidity and that women should not brush their teeth after vomiting as this can damage the teeth's surface after exposure to acidity, explain that they should instead use a sodium bicarbonate rinse to neutralize the acidity;
- encourage breastfeeding as it promotes correct development of jaws, teeth and speech patterns;
- explain good oral care of the newborn infant.

Infants

The formation of the milk teeth starts in the fourteenth week of pregnancy. The milk teeth come through during a baby's sixth month. A teething baby:

- drools more;
- likes to bite on things;
- has swollen reddish gums;
- experiences irritability and more frequent crying episodes;
- experiences disrupted sleep and eating patterns;
- (may) experience mild fever.

To ease an infant's discomfort when they are teething, you can:

- wipe the baby's face with a cloth to remove the drool and prevent rashes;
- give the baby something to chew on such as a clean wash cloth;
- rub the baby's gum with your finger;
- give the child medication to reduce fever if they have fever.

There is a misconception that the care of milk teeth is not that important as they are all lost by the age of 13 when the child gets their permanent teeth. The care of milk teeth is very important because if the milk teeth are lost, it may affect the sort of food choices that children can make, their loss will affect the appearance of the mouth, and if the milk teeth are extracted early this will cause a shift in the position of the remaining teeth and may cause future crowding in the mouth when the permanent teeth come through.

For the care of an infant's teeth, mothers should:

- wipe their baby's gums with a clean, damp wash cloth or gauze after each feeding to remove remaining food or milk;
- brush the milk teeth with a small toothbrush using only a little toothpaste;
- not let the baby fall asleep with a bottle in their mouth. Tooth decay occurs when a child falls asleep with a bottle of milk, formula, juice or any sweet fluid. It can also occur when a child falls asleep during breastfeeding;
- begin to teach their child at the age of between 2 and 3 years how to brush their teeth; however children's teeth cleaning needs to be supervised until the age of 7–8 years;
- not give their children sugary snacks;
- take their children to a dentist regularly.

Adolescents

The occurrence of dental cavities is sometimes higher during adolescence due to neglect of dental hygiene, increased appetite and sugar consumption.

For the care of adolescents' teeth, you should:

- emphasize the importance of brushing and flossing;
- explain the importance of proper diet and nutrition;
- recommend the avoidance of sugary snacks;
- recommend the avoidance of tobacco use;
- emphasize the importance of very good dental hygiene care if they wear braces;
- recommend the use of mouth guards to protect the teeth and oral tissues during sports and driving motorized vehicles.

Older people

Tooth loss often increases with age but as a result of neglect of dental hygiene, not as a result of age itself. Dental decay and gum disease in older people are the result of long-term neglect of dental health.

For the dental hygiene of older people, you should:

- emphasize the importance of good dental hygiene;
- provide nutritional guidance on the suitability of certain foods if older people are experiencing problems chewing certain types of food;
- recommend good care of dentures (false teeth), dentures should be cleaned daily to remove plaque, remaining food and to prevent staining;
- dentures should be removed for the gums to rest either before going to sleep or during the day time. The gums should be cleaned and massaged with a clean finger.

General dental hygiene advice

Bad habits that adversely affect the teeth and the oral cavity include:

- sucking your thumb;
- biting your nails;
- breathing only through the mouth and not through the nose which can cause bad breath and a dry mouth;
- smoking and drinking alcohol;
- using the teeth to cut, break or open things, such as soda bottles;
- drinking a lot of acidic drinks, such as lemon, orange or grape fruit juice, or sugary carbonated drinks;
- trying to clean the teeth using pins or wooden matches;
- applying honey or any sugary solution to a baby's pacifier;
- using ashes to scrub the teeth;
- using only soap and water to clean the teeth.

Annex 1

Pre-and post-test

The following test should be giving to trainees before and after training.

A. Which of the following sentences are correct?

1. There are millions of disease-causing organisms called bacteria in our mouth.
2. A toothbrush should be changed every 3 months.
3. Inflamed gums look red and swollen.
4. All of the above.

B. A teething child usually:

1. drools.
2. has a slight fever.
3. bites on things.
4. all of the above.

C. Is it true that pregnancy causes tooth loss?

1. Yes.
2. No.

D. Which of the following sentences is correct?

1. A 4-year-old child should have 32 milky teeth.
2. It is all right to swallow toothpaste.
3. It is all right to share toothbrushes.
4. A sugary diet causes dental decay.

E. Is it essential to use a large amount of toothpaste every time you brush?

1. Yes.
2. No.

