

Maternal health



This chapter focuses on care during pregnancy, preparing for childbirth, recognising danger signs during pregnancy, labour and delivery, and after giving birth, as well as men's role in maternal health. This chapter naturally links to the chapters on preventing mother-to-child transmission and child health.

1. Care during pregnancy



Session objectives

By the end of the session, participants should be able to:

- Describe what women can do to help have a healthy pregnancy.
- Identify ways to overcome obstacles to proper care during pregnancy.



Session guide

1. **Ask:** What can a women and her partner do to have a healthy pregnancy? [Answers: Go for antenatal care, reduce her workload, get plenty of rest, eat healthy foods, eat more, get medicines to prevent malaria, avoid STI and HIV infection, and not drink alcohol or smoke.]
2. **Ask:** Do most pregnant women in our community do all of these things? Why or why not? Allow participants to discuss. Note reasons why women do not take care of themselves during pregnancy.
3. **Ask:** How can pregnant women take better care of themselves during pregnancy? Allow participants to discuss. Refer to the reasons given earlier for why women do not take better care of themselves and ask how women can overcome them.
4. **Ask:** How can partners and other family members help pregnant women to take better care of themselves. Refer to the reasons given earlier for why women do not take better care of themselves and ask how partners and family members can women overcome them.
5. **Ask:** How many times should pregnant women go to the health facility for antenatal care (ANC)? [Answer: 4 times.]
6. **Ask:** Do most women go to the facility four times before giving birth? Why or why not?
7. **Ask:** How can we encourage women to go to the facility for all four of her antenatal care visits? What can partners and family members do?
8. **Ask:** Why should pregnant women sleep under bed nets? Allow participants to discuss.
9. **Explain** that pregnant women should sleep inside bed nets to protect themselves from malaria-infected mosquitoes. During pregnancy, it is especially important for women to avoid becoming sick with malaria. Malaria during pregnancy can cause anaemia (weak blood), miscarriage, and low birth weight and premature babies. When women are pregnant, they are less able to fight malaria infection, so they are more likely to become very sick with malaria than other adults. Treatment is also more complicated during pregnancy. In addition to sleeping under a bed net, pregnant women should be given 2 doses of a medicine that helps prevent malaria called SP. SP is safe and works very well.
10. **Ask:** Are all bed nets the same? Allow participants to discuss.
11. **Explain** that there are different kinds of bed nets: those with insecticide and those without. Insecticide repels and kills mosquitoes and is the best option for pregnant women. The insecticide treated bed nets are safe for people to use and provide a high level of protection from mosquitoes. These nets kill mosquitoes that touch the net; reduce the number of mosquitoes in the house, inside and outside the net; and kill lice, ticks, and pests such as bedbugs and cockroaches. Untreated bed nets are also safe and provide some protection from mosquitoes, but do not kill or repel mosquitoes

and can let mosquitoes in to bite when a person enters or leaves, if there is a hole or tear in the net, if the net is badly hung, or when skin touches the net.

12. **Ask:** Do most pregnant women in our community sleep under a bed net? If not, why not? Allow participants to discuss.
13. **Explain** that insecticide treated bed nets are available for pregnant women at government health facilities for Ksh. 50/=. Ask: How can we encourage women to purchase these bed nets and sleep inside them? Allow participants to discuss.



Main messages

1. All pregnant women need particularly nutritious meals and more rest than usual throughout the pregnancy.
2. Smoking, alcohol, drugs, and pollutants are especially harmful to pregnant women.
3. Physical abuse during pregnancy is dangerous both to the woman and the foetus.
4. Pregnant women should take anti-malarial tablets recommended by a health worker.
5. All pregnant women should sleep under insecticide treated nets to prevent malaria.
6. A skilled birth attendant, such as a doctor, nurse or midwife, should check the woman at least four times during every pregnancy.



Activities

Activity: Care during pregnancy role play

1. Ask for two volunteers to role play the following characters and scenario.

Characters: A woman who is seven months pregnant and a neighbour woman

Scenario: A pregnant woman is walking home from her shamba carrying a heavy basket on her head, a hoe and a child on her back. In the basket is maize, which she intends to cook for her family for supper. The neighbour meets her on the road and offers her advice and help in a kind, supportive way.

2. Let the characters role play for 5-10 minutes. Then ask the group to comment on the kind of support and advice given to the pregnant woman by her neighbour. Is there anything more she could have said or done to help the pregnant woman take care of herself during her pregnancy?

Activity: Eating well during pregnancy

Review the following information about different food groups.

Body-building foods have protein for cell repair and growth, help build strong bones and cells, help to fight infections, and repair the body. These include beans, lentils, peas, nuts, milk, yogurt, cheese, fish, eggs, chicken, meat, wheat, maize, and rice.

Protective foods help fight infections, help the body absorb and use protein and carbohydrates and help digest nutrients.

These include sukuma wiki and other greens, spinach, cabbage, pumpkins, mango, paw paw, carrots, tomato, avocado, oranges, pineapples, and bananas.

Energy foods give the body energy so it will work and people can stay active. These include maize, ugali, rice, matoke, millet, cassava, taro root, potato, and sweet potato.

Divide the participants into three groups. Ask each group to talk about the kinds of food that are available in our community and would be good for pregnant women to eat. Ask each group to plan three meals and two snacks for a pregnant woman to eat in one day. Ask them to think about problems women might face in trying to get these foods, and how they can be solved. When the group has discussed for about 10 minutes, ask them to return to the large group and share their ideas.

2. Preparing for childbirth



Session objectives

By the end of the session, participants should be able to:

- Understand why lack of planning leads to problems and emergency situations during childbirth.
- Describe the key elements of birth preparedness.
- Identify danger signs during pregnancy, childbirth, and the postpartum period.



Session guide

1. **Ask:** In our community, how do pregnant women and their families usually prepare for birth? Allow participants to discuss.
2. **Ask:** Do you think this amount of planning and preparation is enough? Why?
3. **Ask:** Why is planning for birth important? Allow participants to discuss.
4. **Explain** that not planning can lead to emergency situations that put the mother and the child at great risk, and even death. It is important that woman and their families are prepared and get appropriate health care before an emergency.
5. **Ask:** How should women and their families prepare for childbirth? Allow participants to discuss. Participants should mention the following information:
A woman should:
 - Know what to expect during pregnancy, including their due date and how to stay healthy during pregnancy (eat healthy, work less, and get plenty of rest).
 - Make an individual birth plan and choose a birth partner.
 - Know and recognize danger signs during pregnancy, childbirth, and the post-partum period.
 - Understand the importance of having a skilled provider attend the birth.
 - Know which health facility to go to if she has any problems.
 - Know how to get to that facility.
 - Develop a plan to pay (savings/loan) for those services.
 - Understand the importance of immediate and exclusive breastfeeding.
 - Recognize the danger signs for newborns.
 - Learn about their return to fertility and contraceptive options available to them after childbirth.
6. **Explain** that because dangerous problems can happen at any time during pregnancy, childbirth, or just after the birth, it is important for families to know where the nearest hospital or clinic is and have plans and funds available to get the woman there quickly at any time. If possible, pregnant women should move, temporarily, closer to a clinic or hospital so that she is within reach of medical help if she needs it.

7. **Ask:** From the seventh month of pregnancy women should have the necessary items for delivery, what would those items be? Participants should mention the following:
- One pair of sterile rubber gloves (or clean plastic bags to wear over the hands)
 - A lot of very clean cloths or rags
 - Soap
 - A new razor blade
 - Clean cotton wool
 - Two ribbons, strings or strips of clean cloth for tying the cord
 - Sanitary napkins or rags
8. **Explain** that it is also important for each pregnant woman to have a birth plan. A birth plan should be able to answer the following questions:
- When is the baby due?
 - Where will the baby be born?
 - Which trained and skilled attendant will be there?
 - What supplies are needed to prepare for delivery?
 - Who will be the birth partner?
 - Who will care for the rest of the family?
 - Which health facility will she go to in case of an emergency?
 - How will she get there?
 - How long will it take to get there?
 - How much will it cost for transport?
 - How will you raise funds for transport?
9. **Explain** that a birth partner is the person who is with the pregnant woman during childbirth. This person will support the woman during childbirth and should help her make the birth plan. A birth partner can be the father, a sister, mother-in-law, mother, other family member or a Community Health Volunteer. A birth partner should also be able to recognize warning signs during pregnancy and encourage the pregnant woman to get help as needed.
10. **Ask:** What are the danger signs for a woman during pregnancy? Participants should mention the following:
- Any bleeding from the vagina
 - Bad headache
 - Blurred vision
 - Swelling in the hands or feet
 - Convulsions or fits
 - Loss of consciousness
 - A high fever
 - Heavy vaginal discharge
 - Severe abdominal pain
 - Difficulty breathing
 - Painful urination
 - A lot of vomiting
 - Very pale palms of hands or nail beds
 - Genital ulcers
 - The baby is not moving at all

11. **Ask:** What are danger signs for the mother during and after childbirth? Participants should mention the following:

- A lot of bleeding during and after birth
- Convulsions or fits
- Bad abdominal pain
- Fever with or without chills
- Labour pains for more than 12 hours
- Water breaks without labour for more than 12 hours
- Arm or leg of baby coming out first
- Placenta not delivered in 30 minutes
- Foul smelling vaginal discharge

12. **Ask:** What are danger signs during and after childbirth for the baby? Participants should mention the following.

At birth

- Not breathing
- Skin yellow in colour
- Skin on palms and soles of feet are blue
- Unable to suck

First 7 days

- Skin on palms and soles of feet are blue
- Fever/chills
- Skin yellow in colour
- Difficulty breathing
- Convulsions (fits)
- Unable to suck or poor sucking
- Diarrhoea/constipation
- Red swollen eyes with discharge
- Redness and discharge around the cord

13. **Ask:** What should be done if a woman or her child have any of these danger signs? [Answer: Go to a health facility immediately.]

14. **Ask:** Do you know any pregnant women who died during pregnancy or childbirth? Do you know any women who had a baby die during childbirth or soon after being born? Allow participants to share their stories.

15. **Explain** that many of the problems that women have during childbirth happen because they do not get the medical care they need in time. Often women do not get proper care on time because:

- Women and their families do not know what the danger signs are.
- Women are not being able to make a decision to go to the health facility on their own and the decision maker is not there.
- Women are not able to get to the health facility in time.
- Women are not able to get quality care in time.

16. **Divide** participants into four groups and assign one of the above reasons to each group. Ask each group to talk about their delay and if it is a problem in their community and how the problem can be overcome. Ask them to think about what they can do as an individual to overcome this problem, as well as what they can do as a community.

17. **Bring** the group back together and ask a representative from each group to share what their group talked about. Allow participants from other groups to add additional ways to overcome these problems.
18. **Ask:** Why do health workers recommend that women deliver at the facility or at the very least having a trained and skilled birth attendant (like a doctor, nurse or midwife) at the birth? Allow participants to discuss. Share information from the background notes as needed.
19. **Explain** that having a skilled birth attendant assist at the delivery in a health facility and check on the mother in the 12 hours after delivery reduces the likelihood of either the mother or the baby becoming ill or dying.
20. **Ask:** Do most pregnant women in our community deliver in a facility? Why or why not? How can we encourage women to deliver in a facility?
21. **Ask:** What are some signs that a woman should go to a health facility after giving birth?
22. **Ask:** What are some signs that a newborn should be brought to a health facility?
23. **Explain** that all babies born at home should be brought to a hospital within 48 hours of birth, even if both the baby and mother are healthy. At the facility, they will both be examined for infections, the mother will be counselled on feeding and caring for her baby, the baby will be vaccinated, and the mother will be counselled on contraceptive options.
24. **Ask:** What is some advice you would give to mothers to stay healthy after giving birth? Allow participants to discuss.
25. **Explain** that mothers need care after birth just like their babies. Oftentimes people are so busy caring for the baby that the mother is not looked after. To stay healthy after childbirth, mothers should get plenty of rest during the first six weeks after giving birth, eat more food than usual, drink a lot of fluids, not have sexual intercourse or put anything in the vagina until the bleeding stops, keep their genitals clean and wash often, and not put plant or herbal medicines inside the vagina.
26. **Ask:** What can mothers and caregivers do to keep babies healthy? Allow participants to discuss. They should mention keep the home and baby clean, take care of the cord, keep the baby warm, take the baby to the facility within 48 hours of birth, start breastfeeding in the first hour of birth and continue to give only breastmilk for six months, and take the baby for immunizations. hide their true selves, their true feelings and ambitions. You may feel one way, but act another because you are worried about what your family and friends may say. What they will think of you. You may hide feelings of doubt, fear, concern, caring and sadness because they are not 'masculine.'



Main messages

1. All families should be able to recognize warning signs of problems during pregnancy and childbirth and have plans for getting immediate skilled help.
2. All pregnant women should have a birth plan.
3. A skilled birth attendant, such as a doctor, nurse or midwife, should check the woman at least four times during every pregnancy .
4. Mothers must be immunized against Tetanus.
5. All births must be conducted by a trained health worker such as a doctor, nurse, or midwife.
6. Women who deliver at home should go to the post-partum clinic at least three times: within 48 hours, at 2 weeks, and at 4 to 6 weeks.

7. Women and their families should follow all instructions given at the health facility.
8. Women should go to a facility or bring their child to a facility if they have any of the danger signs.
9. Women should begin breastfeeding within 1 hour of birth and continue to give only breastmilk for six months.
10. Women and their children should sleep under an insecticide treated net.
11. Women should begin a contraceptive method that is healthy for women who have just given birth (progesterone-only pills, condoms, injectables, implants, or IUDs).
12. All children born must be notified and registered.
13. Wash your hands before breastfeeding or feeding, after cleaning the baby's faeces, and after visiting the toilet.
14. All newborns should be immunized against preventable diseases.



Activities

Activity: Waiting game

Ask participants to listen to the following story about a woman in labour and note every time something happened or did not happen that caused a delay in the woman receiving the health service she needed. Discuss what could have been done to save the woman.

Mary is 17 years old. She has been married for a year and is expecting her first child. Her husband is often away from home because of his work, so she stays with her mother-in-law. Mary is frightened of her mother-in-law, who does not like giving Mary any money and seems to think childbirth is an everyday event that should be endured bravely by all women without complaining or special attention. Because of this, Mary has never gone for antenatal care - besides, the clinic is far away and public transportation is not readily available. During the last month of pregnancy, Mary's feet and hands started swelling up seriously. The day she started labour, Mary's husband was not home and her mother-in-law called in the local traditional birth attendant (TBA).

Mary laboured for 18 hours and finally the TBA suggested that she go to the health centre to finish giving birth. After the brother-in-law spent another two hours searching for transportation, he finally located a farmer with an old truck who agreed to drive her to the health centre and wait to be paid later. By the time Mary reached the health centre, it was the middle of the night and there was no midwife on duty. Mary started bleeding heavily and died before a midwife or doctor could be found.

Activity: Danger signs quiz

Read out the following list of things a woman may experience when she is pregnant or delivering or postpartum. For each of the items you read out loud, ask the participants to raise their hand if it is a sign that she or her newborn is in danger. After each situation, allow participants to discuss why they think it is or is not a danger sign. Correct any incorrect information.

During pregnancy

- Vomiting in the morning (no)
- Vaginal bleeding (yes)
- Convulsions (yes)
- Backache (no)
- Difficulty breathing (yes)
- Headache (yes)
- Fatigue/tiredness (no)
- Swollen hands/face (yes)
- High fever (yes)
- Severe abdominal pain (yes)

During childbirth

- Heaving bleeding (yes)
- Severe cramps (no)
- Backache (no)
- Convulsions (yes)
- Fevers, chills, discharge (yes)
- Labour longer than 12 hours (yes)
- Shortness of breath (no)
- Fatigue (no)
- Placenta not delivered in 30 minutes (yes)

Postpartum (up to 6 weeks after birth)

- Light bleeding (no)
- Heavy bleeding (yes)
- Convulsions (yes)
- Fatigue (no)
- Swollen breasts (no)
- Fever, chills, discharge (yes)

Newborn

- Not breathing (yes)
- Skin colour is yellow (yes)
- Black stools (no)
- Blue skin, palm, or soles of feet (yes)
- Unable to suck (yes)
- Closed eyes (no)
- Fever/chills (yes)
- Convulsions (yes)
- Indifference to loud noise (no)
- Diarrhoea or constipation (yes)
- Red swollen eyes with discharge (yes)
- Cord is red or has discharge (yes)

3. Men's responsibilities during pregnancy



Session objectives

By the end of the session, participants should be able to:

- Identify specific ways that men can help their partners have a healthy pregnancy and childbirth.
- Describe reasons why men might not be helpful to their partners during pregnancy.
- Identify ways to encourage men to get involved.



Session guide

1. **Ask:** Do men in our community traditionally help their wives during pregnancy? What are examples of how they help? If they do not help, why not?
2. **Ask:** Can anyone share an example of how your husband helped you/you helped your wife during pregnancy? Encourage participants to share their experiences.
3. **Ask:** How else can men help make sure their wives have healthy pregnancies? Participants should mention the following:
 - Make sure that your pregnant wife gets the food and medical care she needs
 - Pay for transport, fees and medicine
 - Escort his wife to antenatal services
 - Take over physically demanding work
 - Provide encouragement and emotional support
4. **Ask:** How can you encourage men to become more involved? Allow participants to discuss.
5. **Ask** four volunteers to role play the following situations in front of the group. Explain the scenario to the volunteers, but do not read the scenarios to the group. For each situation, there are two characters, a husband and his wife who is six months pregnant. They have several other children.

Scenario 1: (the “un-supportive” husband, he does not help his wife even though she is pregnant. He thinks she should continue doing the same amount of work, does not need to eat more and that it is too expensive to go to a health facility for exams.) It is a typical evening in a rural community. The wife is just returning from spending the day at the market selling vegetables. The husband is returning from the shamba.

Scenario 2: (the “supportive” husband, helps his wife so she does not have to work as hard, he helps make sure she gets rest, he gives her money to buy extra food, and he goes with her to her antenatal care visits at the hospital.) It is morning and the couple is just getting up. The children must get ready for school, the wife is going to the market to sell vegetables and the husband is going to work on the shamba.

6. **Ask** the couple with the “un-supportive” husband to role play for a few minutes.
7. **Ask:** Was the scene they acted out typical in our community? Why or why not? Allow participants to discuss.

8. **Ask** the couple with the “supportive” husband to role play their scenario for a few minutes.
9. **Ask:** How was the husband different from the husband in the first role play? How did the husband help his wife? What else could he have done? Is this typical in our community? How can this kind of male involvement be encouraged and supported in our community? Allow participants to discuss.



Main messages

- Men should support and encourage their wives during pregnancy.
- Men should remain faithful to their wives (or use condoms correctly every time they have sex) especially during pregnancy and while she is breastfeeding.
- Men should go with their wives to the antenatal clinic.
- Men should help make the individual birth plan with their wives.
- Men should help their wives to eat well during pregnancy, sleep under an insecticide treated net, and get plenty of rest.
- Men should be with their partners during childbirth.
- Men should take their wives for treatment if there are any danger signs.



Background notes

Care during pregnancy

One of the most important things a woman can do as soon as she thinks she is pregnant is visit a health facility for antenatal care, ideally by the fourth month of pregnancy and sooner if possible. An early visit can detect complications such as anaemia or a sexually transmitted infection. These complications can then be treated before the pregnancy advances and the problem becomes serious. It is also important to make sure the woman has a tetanus injection, as women are especially at risk of tetanus during childbirth. Tetanus is an infection that can kill and is caused by a germ that enters the body through cuts or wounds.

There are a number of reasons why a woman might not attend antenatal care early or often enough. She may not understand the benefits of antenatal care, so she sees no reason to go. Her husband and family may not think it is important, and may discourage her from going or refuse to give her money for transport or fees.

The table below describes what pregnant woman can expect health workers to do at each antenatal visit:

<p>1st visit¹</p> <ul style="list-style-type: none"> • Take history. • Do physical exam. • Look for anaemia. • Screen for syphilis. • Give tetanus toxoid. • Advise on individual birth plan. • Tell her about danger signs. <p><i>If more than 16 weeks</i></p> <ul style="list-style-type: none"> • Give first SP. • Take iron and folate 2 weeks after taking SP. 	<p>2nd visit</p> <ul style="list-style-type: none"> • Check on individual birth plan. • Give first SP. • Take iron and folate 2 weeks after taking SP. • Listen for foetal heart sound. • Counsel and educate.
<p>3rd visit</p> <ul style="list-style-type: none"> • Check on individual birth plan. • Give second SP. • Take iron and folate 2 weeks after taking SP. • Give tetanus toxoid (if 4 weeks after 1st dose). • Listen to foetal heart sound. • Counsel and educate. 	<p>4th visit</p> <ul style="list-style-type: none"> • Check on individual birth plan. • Look for anaemia. • Check foetal presentation. • Do vaginal exam. • Give iron and folate. • Counsel and educate.

Most women work very hard – in the home, on the shamba, or in the office. Many continue to work just as hard or even harder when they are pregnant. Too much physically demanding work during pregnancy can contribute to problems with the pregnancy, such as miscarriage, premature labour, or underweight infants, especially if a woman is not eating enough. Pregnancy is hard work in itself; the body is trying to feed a growing baby, and as the pregnancy advances a woman carries about 11 kilos more weight than usual. Women should be encouraged to avoid heavy physical labour during pregnancy, especially work such as lifting and carrying heavy loads, walking for many hours, and digging or weeding for long periods.

¹From MOH-Division of Reproductive Health/Division of Malaria Control, JHPIEGO. Community Reproductive Health Package for CORPS. JHPIEGO; Nairobi, Kenya.

A pregnant woman should also get as much rest as possible; she should lie down for an hour or so during the day, and sleep between six and ten hours every night. Near the end of her pregnancy it may be difficult for her to get a good night's sleep because of the size and movements of the baby. Lying on the side is often the most comfortable position and improves the blood supply to the baby.

Avoid malaria

During pregnancy, it's especially important for women to avoid becoming sick with malaria. Malaria during pregnancy can cause anaemia, miscarriage, and low birth weight and premature babies. Pregnancy reduces a woman's immunity to malaria, making her more likely to develop severe malaria than other adults. Treatment is more complicated during pregnancy.

In areas where malaria is a common problem, pregnant women should be given 2 doses of SP (sulfadoxine-pyrimethamine). SP given during antenatal care to all pregnant women even without symptoms can significantly reduce the negative consequences of malaria during pregnancy. This treatment is safe and effective.

Pregnant women should also sleep inside insecticide treated bed nets. Sleeping under a treated bed net protects pregnant women from malaria-infected mosquitoes and their babies from placental infection. Ideally, all women of child-bearing age should sleep under treated nets, protecting the child from the time of conception.

Anaemia

A person with anaemia has weak blood. This happens when red blood cells are lost or destroyed faster than the body can replace them. Because women lose blood during their monthly periods, anaemia is often found in women between puberty and menopause. Many women become anaemic during pregnancy because they need to make extra blood for the growing baby.

Anaemia is a serious illness. It makes a woman more likely to get other kinds of diseases, and affects her ability to work and learn. Anaemic women are more likely to bleed heavily or even die during childbirth.

Signs of anaemia:

- Pale inner eyelids, tongue and nails.
- Weakness and feeling very tired.
- Dizziness, especially when getting up from a sitting or lying position.
- Fainting.
- Shortness of breath.
- Fast heartbeat.

Avoid alcohol and smoking

Alcohol in the mother's blood passes through the placenta to the baby. Women who drink heavily risk having babies with serious problems, including mental and physical disabilities. Since it is not known exactly how much alcohol is dangerous to a baby, a pregnant woman should be counselled to avoid it completely.

Smoking during pregnancy is harmful as it interferes with the blood flow from the mother to the baby. Babies born to women who smoke during pregnancy are often smaller than babies of non-smoking mothers; smaller babies are more likely to be sick. It is best if women who smoke can stop before pregnancy or as soon as possible during the pregnancy.

Avoid medicines

Medicines taken during pregnancy pass through the placenta to the baby. Because no medicine is completely free of side-effects, and because the baby is more likely to suffer from these side-effects, medicines should be avoided during pregnancy.

This is particularly true for medicines purchased from chemists that are not prescribed by a doctor. It is especially important to avoid medicines during the first three months of pregnancy when the fertilized egg is undergoing the most rapid process of growth and development. Medicines taken during this time may cause abnormalities in the baby.

There are some exceptions to the “no medicines” rule. They include medicines prescribed by a trained health worker to prevent malaria and tablets to supplement the diet with iron and vitamins. Other medications may be prescribed by a doctor for specific problems related to pregnancy, such as high blood pressure.

Eating well

Pregnancy puts many demands on a woman’s body, especially in terms of nutrition. During pregnancy, the baby’s needs are met before those of the mother. For example, if a woman does not get enough food or enough of a particular vitamin, her body will give the baby what it needs first, and then use whatever is left over – which may not be enough. Lack of some vitamins or minerals in the diet can cause illness. For example, anaemia is caused by lack of iron, and goitre by lack of iodine. It is important that a woman gains enough weight during pregnancy and only eats the right foods in order to meet her own energy and nutritional needs, as well as those of her baby. Women need to continue to eat more while they are breastfeeding.

On average, women should gain about 9-13 kilos during pregnancy. If there is not enough weight gain and the woman is thin to begin with, there is a chance that the baby may weigh too little. Underweight babies are much more likely to die during their first year of life. They are also more likely to have illnesses such as diarrhoea, anaemia, and colic. If they survive, they are more likely to be mentally disabled. Some women intentionally try to avoid gaining too much weight during pregnancy, because they believe the baby will be smaller and easier to deliver if they do not eat too much. This custom can be very harmful for the both the woman and her baby.

Types of foods

Pregnant women should follow a normal, healthy diet. The most important rule is for them to eat enough of different types of foods to meet their needs and those for the developing baby. Some women have strong desires for certain types of foods or develop strong dislikes for other foods. Both reactions are normal, and women should be encouraged to eat what they want and avoid what they do not want as long as what they eat is healthy. The following are different types of food that must be included in a daily diet.

Energy-giving foods: These include starchy foods like maize, potatoes, yams, sweet potatoes, millet, and bread. Fats are also an important source of energy. They include the oils used for cooking, such as coconut oil and groundnut oil, as well as fat from animal sources, such as butter. A pregnant woman should eat four servings of food from this group every day.

Body-building foods: These include both meats and vegetables that provide the necessary materials, called proteins, for building the many types of tissues that form the human body. Good sources of animal protein include meat, fish, milk, and eggs. Vegetable sources include beans (which are healthiest if they are eaten with a starchy food such as rice or yams), groundnuts, and the leaves of some plants. A pregnant or breastfeeding woman should eat three servings of food from the body-building group every day.

Protective foods: Vitamins are special substances present in many types of foods. The body needs small amounts of different vitamins for normal growth and development. Lack of vitamins can cause illness. Good sources of essential vitamins are liver, fish and eggs. These foods can also provide many of the minerals (such as calcium, iron, iodine, and copper) needed for normal body functions and the growth of the baby. Other good sources of vitamins include fruits and vegetables such as oranges, bananas, pineapples, mangoes, pawpaw, tomatoes, and carrots. A pregnant woman should eat three servings of food from the protective group, especially fruits and vegetables, each day.

Continue to have sexual intercourse, if desired by both partners

Women, as well as men, often have questions about the effects of sexual intercourse during pregnancy, although they may be reluctant to ask. Traditional beliefs regarding this topic are common. For example, some people believe that intercourse is necessary during pregnancy because they think the man's semen will help the baby grow. While this is not true, couple should know that they can continue to have normal sexual relations during pregnancy as long as they want to. It will not hurt the baby or mother unless there is bleeding from the vagina, signs of premature labour, or the bag of water has broken. Some women feel no desire for sex during pregnancy; others do, and may even feel increased desire. As pregnancy advances, however, sex may be uncomfortable. Women should be encouraged to discuss their feelings, try different positions during sexual intercourse, and find other ways to be close to their husbands or partners.

Preparing for birth

Planning for birth is not a common practice in many communities. Pregnancies are often not acknowledged until there are visible physical signs (at 6-7 months). Not planning can lead to emergency situations that put the mother and the child at great risk, and even death. It is important to encourage women and their families to think about getting appropriate health care before an emergency. Young women and adolescents, especially with their first pregnancy, are often more at risk because their bodies are not fully developed, they do not have accurate information, they often lack decision-making abilities, and they do not go for antenatal services.

Individual birth plan

It is important for every pregnant woman and her family to have an individual birth plan. This plan should answer the following questions:

- When is the baby due?
- Where will the baby be born?
- Which trained and skilled attendant will be there?
- What supplies are needed to prepare for delivery?
- Who will be the birth partner?
- Who will care for the rest of the family?
- Which health facility will she go to in case of an emergency?
- How will she get there?
- How long will it take to get there?
- How much will it cost for transport?
- How will you raise funds for transport?

A birth partner is the person who is with the pregnant woman during childbirth. This person will support the woman during childbirth and should help make the individual birth plan. A birth partner can be the father, a sister, mother-in-law, mother, other family member or a Community Health Volunteer. A birth partner should also be able to recognize warning signs during pregnancy and encourage the pregnant woman to get help as needed.

Four delays

Many of the problems that women have during childbirth happen because they do not get the medical care they need in time. From the time that a problem begins to the time the woman receives care, a number of delays can occur. These are called the "four delays."

1. Delays in problem recognition: Many women and their families have not been educated about danger signs, the causes of maternal death, and/or the risks associated with childbirth. They also do not know the signs indicating that the newborn is in trouble. This lack of knowledge contributes to the delay in recognizing the danger signs indicating a problem.
2. Delays in decision-making: In many communities, women have limited ability, if any, to influence decision-

making in the household. Women are often subjected to the beliefs of their mothers, mother-in-laws and other female relatives. In addition, they usually need their husband's permission before they can obtain care. Often, the decision-makers in a family are not available at the time of an emergency, meaning a delay in the decision to seek appropriate care.

3. **Delays in getting to the health facility:** Often, women and her family wait until an emergency situation is on hand before they think about arranging for a way to get the mother to the health facility. Sometimes families do not know how to contact a transport worker, no transport is available, it is expensive, or security might be an issue. Any of these situations can cause a life-threatening delay in getting the women to the facility quickly or comfortably.
4. **Delays in receiving quality maternal and newborn care:** In many places, health facilities are not adequately equipped to provide quality services. Facilities are useless in providing emergency obstetric care if trained personnel, emergency medicines, supplies, blood, anaesthesia, electricity and running water are not available.

Key elements of birth preparedness

A woman should:

- Know what to expect during pregnancy, including their due date and how to stay healthy during pregnancy (eat healthy, work less, and get plenty of rest).
- Make an individual birth plan and choose a birth partner.
- Know and recognize danger signs during pregnancy, childbirth, and post-partum.
- Understand the importance of having a skilled provider attend the birth.
- Know which health facility to go to if a complication arises.
- Know how to get to that facility.
- Develop a plan to pay (savings/loan) for those services.
- Understand the importance of immediate and exclusive breastfeeding.
- Recognize the danger signs for newborns.
- Learn about their return to fertility and contraceptive choices after childbirth.

Pregnant women should also have the following items at home by the seventh month:

- One pair of sterile rubber gloves (or clean plastic bags to wear over the hands if she does not have gloves)
- A lot of very clean cloths or rags
- Soap
- A new razor blade
- Clean cotton wool
- Two ribbons, strings or strips of clean cloth to tying the cord
- Sanitary napkins or rags

Danger signs during pregnancy

1. **Bleeding:** If a woman begins to bleed during pregnancy, even a little, this is a danger sign. She may be having a miscarriage (losing the baby). The woman should lie quietly and send for a health worker. Bleeding late in pregnancy (after 6 months) may mean the placenta (afterbirth) is blocking the birth opening. Without expert help, the woman could bleed to death. Try to get her to a hospital at once.
2. **Severe anaemia:** The woman is weak, tired, and has pale or transparent skin. If not treated, she might die from blood loss at childbirth. If anaemia is severe, a good diet is not enough to correct the condition in time. See a health worker and get pills or an injection. If possible, she should have her baby in a facility, in case extra blood is needed.

3. Swelling of the hands, feet, and face, with headache, dizziness, and sometimes blurred vision, are signs of toxemia or poisoning of pregnancy. Sudden weight gain, high blood pressure, and a lot of protein in the urine are other important signs. If possible, a woman should go to a midwife or health worker who can measure these things.

Women should get help immediately if:

Pregnancy

Any bleeding from the vagina
Bad headache
Blurred vision
Swelling in the hands or feet
Convulsions or fits
Loss of consciousness
A high fever
Heavy vaginal discharge
Severe abdominal pain
Difficulty breathing
Painful urination
A lot of vomiting
Very pale palms of hands or nail beds
Genital ulcers
The baby is not moving at all

During and after childbirth

A lot of bleeding during and after birth
Convulsions or fits
Bad abdominal pain
Fever with or without chills
Labour pains for more than 12 hours
Water breaks without labour for more than 12 hours
Placenta not delivered in 30 minutes
Foul smelling vaginal discharge

Caregivers should get help immediately if newborns:

At birth

Not breathing
Skin yellow in colour
Skin on palms and soles of feet are blue
Unable to suck

First 7 days

Skin on palms and soles of feet are blue
Fever/chills
Skin yellow in colour
Difficulty breathing
Convulsions or fits
Unable to suck or poor sucking
Diarrhoea or constipation
Red swollen eyes with discharge
Redness and discharge around the cord

Importance of skilled birth attendants and delivering in a facility

The chance of a mother or baby becoming ill or dying during and after childbirth is much lower if a skilled birth attendant assists at the delivery in a health facility and also checks on the mother and baby in the 12 hours after delivery. A skilled birth attendant (such as a doctor, nurse, or trained midwife) helps make pregnancy and childbirth safer and babies healthier by:

- Checking the woman's health during pregnancy, treating any infections or problems during pregnancy, giving preventative injections and medications, counselling on nutrition, checking the foetus, helping the mother prepare for childbirth, and giving advice on breastfeeding and caring for herself and her newborn.
- Advising the pregnant woman and her family where the birth should take place and how to get help if problems arise during childbirth or immediately after delivery.
- Knowing when labour has gone on for too long (over 12 hours) and when a move to a hospital is necessary, when and how to get medical help, how to reduce the risk of infection (clean hands, clean instruments and a clean delivery area), what to do if the baby is in the wrong position, what to do if the

mother is losing too much blood, when to cut the umbilical cord and how to care for it, what to do if the baby is not breathing right away, how to care for the baby after delivery, how to guide the baby to breastfeed immediately after delivery, how to deliver the afterbirth safely and care for the mother after the baby is born.

- Checking the woman's health after birth and counselling women to prevent another pregnancy, avoid sexually transmitted infections such as HIV or how to reduce the risk of infecting their infants.

Care after birth

Mothers who deliver at home should take their babies to a health facility for postpartum care within 48 hours of birth. Even if both the mother and baby seem healthy it is important for them to go to the facility. At the facility, they will both be examined for infections, the mother will be counselled on feeding and caring for her baby, the baby will be vaccinated, and the mother will be counselled on contraceptive options.

Mothers need care after birth just like their babies. Oftentimes people are so busy caring for the baby that the mother is not looked after. To stay healthy after childbirth, mothers should follow the advice below:

- Mothers should get a lot of rest during the first six weeks after giving birth.
- Mothers need to eat more food than usual. They can eat all foods. Meats, fish, beans, vegetables, fruits, and grains will all help her heal from the birth and have more energy.
- It is important for mothers to drink a lot of fluids.
- Mothers should begin breastfeeding within one hour of birth.
- If a mother has a tear at the opening of her vagina, it needs to be kept clean.
- To prevent infection mothers should not have sexual intercourse or put anything in the vagina until the bleeding stops.
- Mothers should try to keep their genitals clean and wash often. They should wait until after the first week before sitting in water.
- No plant or herbal medicines should be put inside the vagina.

To keep babies healthy, mothers and caregivers can:

- Keep the home and baby clean, and wash their hands often.
- Take care of the cord by:
 - Cutting the cord with a sterile blade or new razor.
 - Clean the cord with a spirit and keep it dry.
 - Do not put anything on the cord, not even saliva, powder, salt or cow dung.
- Keep the baby warm.
- Take the baby for immunizations.
- Start breastfeeding in the first hour of birth and continue to give only breastmilk for the first 6 months.

Danger signs after birth

For the mother

A mother should go to a hospital without waiting, if she has any of the following signs:

- Heavy bleeding from the vagina. This means that more than 2 pads or thick rags are soaked through in 1 hour, or that she is bleeding more after giving birth, not less.
- Fits (convulsions).
- Fast or difficult breathing.
- Fever (temperature 38° C or above) and too weak to get out of bed.
- Very bad pain in the abdomen.
- Foul smelling fluid coming out of the vagina.
- Swollen, red or tender breasts, or sore nipples.

For baby

A baby should be brought to a health centre if it has any of the following:

- Not breathing normally, either too fast (more than 60 breaths per minute) or too slow (less than 30 breaths per minute).
- Fits (convulsions).
- Floppy or stiff.
- Fever (temperature above 38°C).
- Temperature below 35°C or not becoming higher after rewarming.
- Pus coming out of the cord or skin around cord is red.
- Skin is swollen, red, or hard.
- Yellow body, eyes, or palms.
- Not feeding well, unable to suck.
- Eyes are red and swollen with pus coming out.
- Diarrhoea or constipation.

It is important that women give birth in a health facility to help them have a healthy delivery and have access to a health worker in case of any problems. If a woman does not give birth in a facility, she should have a trained and skilled attendant at the birth, and she and her baby should go to a facility in the first 48 hours after giving birth. People often wait too long to go to a health facility even when there are danger signs.

Male involvement during pregnancy and childbirth

Although pregnancy is not an illness, it makes great physical and emotional demands on the mother. Her husband or partner, as well as other members of the family, need to understand and appreciate the discomfort, worries, and tiredness that pregnancy may cause in a woman. Whenever possible, the man or some other family member should take over the physically tiring tasks like working in the fields, lifting or carrying heavy loads, washing, and scrubbing floors. Others can help by taking care of the children. The man can also help by providing encouragement and emotional support, by trying not to make demands on her, and by not criticizing her.

The man can learn about the pregnancy along with the mother. This will enable him to help her more effectively, and understand what she is going through. It will also help him feel more involved. If he is interested, he should be encouraged to go with the woman when she goes to the health centre for antenatal care and health education. He can learn about the danger signs during pregnancy and childbirth, so that if a complication develops he knows when the woman needs to go to a hospital or health centre. He should understand that eating well and getting proper medical care during pregnancy and childbirth are important. The man can also help in very practical ways by making sure the woman eats well, and by providing whatever money is necessary to pay for transportation, fees, or medicines. As the date the baby is due comes closer, the man or other family members should arrange to have transport ready in case there is an emergency.

If this is the family's first baby, the man may have doubts about his ability to be a good father, just as the woman may have doubts about her ability to be a good mother. It will help to talk about these feelings, as well as any other concerns about how having a baby will affect the family.

During labour and childbirth, the man cannot share the physical effort. Men, however, should be encouraged to stay with their wives during labour and childbirth to give comfort and support. This will help the man feel a close attachment to the new baby and have a greater appreciation and sense of responsibility towards the mother.

Male involvement after the baby is born

The first six weeks after the birth of a baby can be an especially hard time for the whole family. The woman has just been through an exhausting and profound experience, physically and emotionally.

Both mother and father have to adapt to a new person in their lives and meet the baby's needs, including breastfeeding. Sometimes these responsibilities may seem overwhelming, and parents may doubt their ability to cope. During this time, the father can play an important role in giving the mother and baby support, affection, and help with day-to-day tasks. Other family members can help during this period by giving the mother time to recover and adjust.

After the child is born, the man can contribute to having a healthy and happy family by ensuring that the mother is eating healthy foods, and that both the mother and baby receive medical care. He should be aware of danger signs that might indicate that the mother or baby is unwell and needs to go a health facility.



Gender and maternal health

Maternal health is one of the best signs of a community's and a country's commitment to gender equality, women's rights and women's health. As with reproductive health and family planning, maternal health is closely linked with gender and gender norms. While having children is considered a woman's most important role, gender norms, myths and misconceptions regarding pregnancy and childbirth continue to affect women's pregnancies. It is important to address the barriers women may face in getting adequate care and attention during pregnancy. Harmful norms and attitudes that affect maternal health, including norms about family planning, should be changed to promote healthy pregnancies.

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