Parasites (Malaria and Worms)
Leader Mother Flipchart
Module 4 of 6
Parasites (Malaria and Worms)

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Lessons, stories, and activities in the Parasites (Malaria and Worms) Lesson Plan are meant to complement the information provided in Parasites (Malaria and Worms) Leader Mother Flipchart.

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Lesson 1: Malaria Transmission and Impact on Health and Food Security

Materials for Lesson 1:
1. Attendance Registers
2. (Optional) Paper and pencil*

1. Game: The Two Mosquitoes

2. Attendance and Troubleshooting

3. Story: Hardship Has a Fever (Picture 1.1)

Hardship is not feeling well. Ruth uses the back of her hand to compare the warmth of Hardship’s forehead to her own. His skin is very hot. Is fever serious? Ruth can’t remember. She sings the Danger Sign Song. “His body is hot with fever... Take your child to the clinic, don’t wait another minute. The child’s life is in danger!” Ruth’s husband and Ruth go quickly to the clinic.

4. Ask

? What causes fever?
? Is fever a serious disease/sickness for children? Why?

Let’s compare your thoughts with the messages on the following pages.

* Materials with an asterisk should be organized by the Activity Leader.
Story: Hardship Has a Fever (Picture 1.1)

Hardship is not feeling well. His skin is very hot. Is fever serious? Ruth can’t remember.

Ruth sings the Danger Sign song... “His body is hot with fever... don’t wait another minute...”

Ruth and her husband quickly go quickly to the clinic.
Malaria Defined and Transmission (Picture 1.2)

5. Show

? What do you see in these pictures?

6. Explain

- Fever is the most common sign of malaria.
  - Fever is not a sickness, but a sign that there is sickness in the body.
  - In our region, fever is usually caused by malaria.
- Mosquitoes carry the sickness of malaria.
  - Mosquitoes that carry malaria are active when the sun is low in the sky and at night.
- When the mosquito bites a person who already has malaria, he picks up the illness.
- He carries it with him. The mosquito gives malaria to each person that he bites.
  - Mosquitoes do not become sick with malaria.
  - They only carry the illness to others.
  - If one person in our community has malaria, all of us are at risk of being bitten by a mosquito carrying the sickness.
Fever is the most common sign of malaria.

Mosquitoes carry the sickness of malaria.

When the mosquito bites a person who already has malaria, he picks up the illness. He carries it with him. The mosquito gives it to each person that he bites.
Impact of Malaria on Pregnant Women and Children (Picture 1.3)

7. Show

What do you see in these pictures?

8. Explain

- Untreated malaria can kill a child in 1 or 2 days.
  - Many children die from malaria.
- Malaria causes anemia. It prevents children from growing well.
  - Weak blood makes them tired, drowsy and weak.
  - Malaria prevents children from doing well in school.
  - Children with weak blood are often sick with other illnesses.
- Anemia in pregnancy may cause the baby to be born too early, too small, or dead.
  - In the womb, infants get nutrients from the mother’s blood.
  - If her blood is too weak, the infant will not grow well.
- Anemia in pregnancy increases the risk of the mother dying in childbirth.
  - Anemia makes the blood and the mother very weak.
  - If she loses too much blood during birth, she will not survive.
Untreated malaria can kill a child in 1 or 2 days.

Malaria causes anemia. It prevents children from growing well.

Anemia in pregnancy may cause the baby to be born too early, too small or dead. It increases the risk of the mother dying.
Impact of Malaria on Food Security (Picture 1.4)

9. Show

? What do you see in these pictures?

10. Explain

- Workers with malaria have little energy. They are not able to work long hours.
  - Anemia (weak blood) makes them weak and tired.
  - Malaria reduces a worker’s productivity.
- Frequent malaria makes life difficult. Caregivers must pay for travel to the clinic and medicine.
  - Malaria puts a financial burden on families.
- When children have malaria, caregivers are not able to work long hours.
  - Malaria reduces the time families can work.

? Do you believe that malaria can be overcome? What can we do to reduce malaria sickness and death?

11. Activity: The Cost of Malaria

12. Probe

13. Inform

14. Practice and Coaching

15. Request

16. Examine
Workers with malaria have little energy. They are not able to work long hours.

Frequent malaria makes life difficult. Caregivers must go often to the clinic and pay for medicine.

When children have malaria, caregivers are not able to work long hours.
Lesson 2: Malaria Prevention (ITNs, IPTs and Indoor Spraying)

Materials:
1. Attendance Registers
2. Leaves, pebbles, a small bucket of sand or other small items for the game.
3. Two different types of malaria nets; bring one example of each.*
4. A home where the group can practice hanging mosquito nets *

1. Game: The Mosquito Game

2. Attendance and Troubleshooting

3. Story: No Money for a Net (Picture 2.1)

Ruth goes to visit Mary. Ruth tells her about Hardship’s visit to the clinic. “Is he sleeping under a mosquito net each night?” Mary asks. “No,” says Ruth. “We don’t have enough money for a mosquito net. Besides, Hardship is taking malaria medication. Why does he need to sleep under a net?”

4. Ask
   ? Why should Hardship sleep under a net?
   ? Do you and your children sleep under a net each night?

Let’s compare your thoughts with the messages on the following pages.
Ruth goes to visit Mary. Ruth tells her about Hardship’s visit to the clinic.

“Is he sleeping under a mosquito net each night?” Mary asks.

“No,” says Ruth. “We cannot afford a mosquito net! Besides, Hardship is taking malaria medication. Why does he need to sleep under a net?”
Prevent Malaria with Insecticide Treated Nets (Picture 2.2)

5. Show

? What do you see in these pictures?

6. Explain

- Those with malaria should sleep under a net to prevent mosquitoes from carrying the sickness to others.
  - Malaria is transmitted through mosquito bites.
  - If mosquitoes can’t bite a sick person, they can’t spread malaria.
- An ITN\(^1\) prevents bites. It kills mosquitoes that land on the net.
  - Hanging a net reduces the number mosquitoes in your house.
- Fathers, mothers, pregnant women and children should all sleep under a bed net to prevent malaria.
  - If you only have one net, children under age five and pregnant women should sleep under the net together.
  - Save money to purchase more nets so that everyone can be protected.

? Ruth said that she was too poor to have a net. How could buying a net SAVE money for the future?
  - If the family has less sickness, they will work more and earn more money. Children will be sick less and need less medication.

\(^1\) Only an insecticide treated net kills mosquitoes. An old net, or one that has been washed many times, no longer contains the chemicals to kill mosquitoes. However, it still protects from bites at night. Both nets are effective for prevention of bites.
Those with malaria should sleep under a net to prevent mosquitoes from carrying the sickness to others.

An ITN prevents bites. It kills mosquitoes that land on the net.

Fathers, mothers and children should all sleep under mosquito nets to prevent malaria.
Intermittent Preventative Treatment for Pregnant Women (Picture 2.3)

7. Show

? What do you see in these pictures?

8. Explain

- To prevent illness and death, pregnant women should take malaria pills.
  - The pills reduce the malaria sickness in your body. This keeps your blood and your baby healthy.
- Visit the health worker at the first sign of pregnancy. He will tell you when to return.
  - The first malaria treatment should be taken in the fourth month of pregnancy.
  - At four months of pregnancy, the belly begins to extend and the Ruthbegins to feel movement inside the belly.
  - The second treatment is taken in the seventh month of pregnancy.

? How can malaria pills help the family to be healthier and happier?
  - Mother and infant will need less care and medication.
  - Mother will be healthier during pregnancy.
  - Fewer infants will die before birth.
To prevent illness and death, pregnant women should take two malaria treatments.

Visit the health worker at the first sign of pregnancy. He will tell you when to return.
Lesson 3: Malaria Recognition, Care and Treatment with ACT

Material
1. Attendance Registers

1. Game: Mosquito Count

2. Attendance and Troubleshooting

3. Story: Advantages of the Mosquito Net (Picture 3.1)

Ruth listened to the words of Mary. She and her husband saved money each week to purchase a net. The children love to sleep under the net each night. “It keeps off the flies,” Hardship says. “I don’t wake up itching,” says the daughter. “It makes us feel like we have our own room,” says the boy.” Yes,” says Ruth’s husband. “And we are happy because you are safe from malaria.”

4. Ask

? What are some of the advantages that you have seen using a net?
?

? How can you encourage others to sleep under a net?

Let’s compare your thoughts with the messages on the following pages.
Ruth and Ruth’s husband saved enough money to purchase a net.

The children love to sleep under the net each night.

“It keeps out the flies.” says Hardship. “I don’t have any mosquito bites,” says the girl. It makes us feel like we have our own room, said the boy.

“Yes!” said Ruth’s husband. “And we are happy because you are safe from malaria.”
Signs of Malaria Infection (Picture 3.2)

5. Show

? What do you see in these pictures?

6. Explain:

- Fever is the most common sign of malaria.
  - Use the back of the hand placed lightly on your child's skin to test for fever.
  - If the skin feels hotter than your own skin, take the child to the clinic.
- Chills, sweating and headache are signs of malaria.
- Vomiting and convulsions are signs of malaria.
- Some children refuse to eat or drink.
- If you see any of these signs, take the child to the clinic immediately.
  - Take the child on the same day that you see the sign.
  - If caregivers, pregnant women or others in the family have fever, take them to the clinic for treatment right away.
  - Treatment shortens the days of sickness. Treatment helps the body recover.
  - Treatment prevents malaria death.

? Do you know children in the community who have died from malaria? How can you prevent this from happening to your children?
  - Remember the signs of malaria.
  - Take the child to the clinic at the first sign of fever.
  - Make sure the child sleeps under a net each night.
Fever is the most common sign of malaria.

Chills, sweating, and headache are signs of malaria.

Vomiting and convulsions are signs of malaria.

Some children refuse to eat or drink.

If you see any of these signs, take the child to the clinic immediately.
Malaria Treatment with ACT (Picture 3.3)

7. Show

? What do you see in these pictures?

8. Explain

- At the clinic the health worker will give ACT malaria pills.
  - There are several types of malaria treatment on the market.
  - The best malaria medication is ACT.²
- Even if the child is feeling better, give all the pills as directed by the health worker.
  - If you only give half of the medicine the malaria will return much stronger than before.
  - The child will need a second treatment.
  - ACT pills are given for XXX days.
- Return quickly to the clinic if the fever does not go away within one day.
  - ACT acts very quickly.
  - The child may have more than one infection requiring special care.

² ACT stands for Artemisinin-based Combination Therapies.
At the clinic the health worker will give ACT malaria pills.

Even if the child feels better, give all the pills as directed by the health worker. Return quickly to the clinic if the fever does not go away within one day.
Caring for Children with Fever (Picture 3.4)

9. Show

? What do you see in these pictures?

10. Explain

- If fever stays too long, the child may have convulsions.
- Keep the child cool by wrapping them in a wet cloth.
  - Keeping the body cool prevents convulsions.
  - Wrap the child in a wet cloth to keep them cool on the way to the clinic.
  - It helps to lower the body temperature.
  - Pour cool water on a towel placed around their head.
- Chase the illness far away. Offer extra foods and fluids each day during the illness.
  - Fever and sweating cause a child to lose a lot of water.
  - Breastfeed a child more often during sickness.
- Offer extra foods and fluids each day for two weeks after the child has recovered.
  - Strengthen the child’s body to prevent illness from returning.

11. Activity: Making an Emergency Plan

12. Probe

13. Inform

14. Practice and Coaching

15. Request

16. Examine
Caring for Children with Fever (Picture 3.4)

If the fever stays too long, the child may have convulsions.

Keep the child cool by wrapping them in a wet cloth.

Chase the illness far away. Offer extra foods and fluids each day.

Offer extra foods and fluids each day for two weeks after the child has recovered.
Lesson 4: Parasites Defined and Impact on Health and Food Security

Materials
1. Attendance Registers
2. Two women and two children who are prepared for the Parasite Skit.

1. Game: Simon Says

2. Attendance and Troubleshooting

3. Story: Poor Appetite (Picture 4.1)

Ruth has noticed that her children are not eating well. Why aren’t you eating? She asks. “My stomach is already full” her son says. “I’m just not hungry” say the girl. This continues for many days. Ruth’s husband encourages them to eat every day. They still eat very little.

4. Ask

? What do you think is wrong with the children?
? What do you do when your children lose their appetite?

Let’s compare your thoughts with the messages on the following pages.
"My stomach is already full," her son says.  "I’m not hungry" says the girl.

This continues for many days. Ruth’s husband encourages them to eat every day. They still eat very little.
Parasites Defined (Picture 4.2)

5. Show

? What do you see in these pictures?

6. Explain

- Many people have parasites that live in their bodies. Most of them don’t know they have a parasite.
  - In this picture, everyone wearing red has a parasite inside their body.
- A parasite is a small worm that lives in the body.
  - Parasites live in animals and humans.
- Parasites feed on blood and food in the body.
  - Some parasites eat the food in the stomach.
  - Some feed on blood making the blood weak.
  - Some parasites attach to the liver and intestine and suck out bits of food.
- Some parasites are too small to see. Others can be several meters long inside the body.

? Can you think of a parasite that is carried by mosquitoes and feeds on blood?
  - Malaria! Mosquitoes carry the malaria parasite.
  - The malaria parasite feeds on blood making the blood weak.
Parasites Defined (Picture 4.2)

Many people have parasites in their bodies. Most of them don’t know they have a parasite.

A parasite is a small worm that lives in the body. Parasites feed on blood and food in the body.

Some parasites are too small to see. Others can be several meter long inside the body.
Impact of Parasites on Pregnant Women and Children (Picture 4.3)

7. Show

What do you see in these pictures?

8. Explain

- Parasites in pregnancy cause anemia and malnutrition.
  - Anemia is caused by parasites that feed on blood.
  - When parasites steal food from our stomach, our bodies become malnourished.
- Anemia increases death in childbirth. Babies are born too early, too small or dead.
- Children with parasites don’t eat well and become malnourished.
  - When a child has parasites, it causes anemia.
  - Anemia reduces a child’s ability to grow.
  - Anemia reduces a child’s ability to overcome illness.
  - Anemia reduces a child’s ability to do well in school.
Impact of Parasites on Pregnant Mothers and Children (Picture 4.3)

Parasites in pregnancy cause anemia and malnutrition.

Anemia increases death in childbirth. Babies are born too early, too small or dead.

Children with parasites don’t eat well and are malnourished.

Anemia prevents children from growing tall and doing well in school.
Impact of Parasites on livestock and food security (Picture 4.4)

9. Show

What do you see in these pictures?

10. Explain

- Livestock with parasites are often sick and vulnerable to disease.
  - Livestock with parasites do not grow well.
  - They produce less milk and eggs than animals without parasites.
- Workers with parasites have little energy. They are not able to work long hours.
  - Anemia (weak blood) makes them tired, drowsy and weak.
  - Parasites reduce a worker’s productivity.
  - When children are ill with parasites, workers may be prevented from working in the field.

If all the parasites were treated in your community, how would life be different?
  - Livestock would be healthy and more productive.
  - Children would be sick less often.
  - Families would be healthier.

11. Activity: The Parasite Skit
Impact of Parasites on livestock and food security (Picture 4.4)

Livestock with parasites are often sick and vulnerable to disease.

Workers with parasites have little energy. They are not able to work long hours.
Lesson 5: Parasite Transmission and Prevention with Essential Hygiene Actions

Materials
1. Attendance Registers
2. Banana or other object for the game

1. Game: Pass the Parasite

2. Attendance and Troubleshooting

3. Story: Get Your Own Food (Picture 5.1)

Mary believes that Ruth’s children have parasites. “Parasites!” Ruth says. “I will not let parasites steal from my children! Their bellies will be filled with food, not worms! I have made many changes already. I know that I can stop parasites too!”

Ask

? Why is Ruth so confident that she can overcome the parasites?
? How can someone get rid of parasites?
? Do you take action to prevent (or get rid of) parasites?

Let’s compare your thoughts with the messages on the following pages.
Mary believes that Ruth’s children have parasites.

“I will not let parasites steal from my children. Their bellies will be filled with food, not worms!”
Parasite Transmission in Soil and Foods (Picture 5.2)

5. Show

? What do you see in these pictures?

6. Explain

- The feces of an infected person contain parasite eggs.
  - These eggs hatch into parasite worms when they are swallowed.
- Children swallow the eggs when they eat unwashed foods from the soil.
  - Bits of soil containing the eggs are eaten with the fruit or vegetable.
- Some eggs hatch and enter the body through bare skin.
  - Worms enter the feet when children walk barefoot.
  - Children get lots of worms when they crawl or play in the dirt.
  - Children get parasites when they eat soil or put dirty hands in their mouth.
- We eat parasite eggs when infected meat is not fully cooked.
  - The meat of infected animals contains parasite eggs.
  - If the meat is raw, or not hot all the way through, the eggs remain alive.
  - The eggs hatch into parasite worms when they are swallowed.
The feces of an infected person contain parasite eggs.

Children swallow the eggs when they eat unwashed foods from the soil.

Some eggs hatch and enter the body through bare skin.

We eat parasite eggs when infected meat is not fully cooked.
Preventing Transmission in Soil and Foods (Picture 5.3)

7. Show

? What do you see in these pictures?

8. Explain

- Always use a latrine. Then, wash hands with soap.
  - Wash hands with soap before eating and preparing foods, and after using the latrine.
  - If feces are found in the area around the house, throw it into a latrine.
  - If you don’t have a latrine, bury feces away from the house and at least 20 meters from water sources.
- Wash raw foods with soap and water before eating.
  - Help children to wash hands with soap and water before eating.
  - Wash children’s hands after they have been playing outside.
  - Caregivers should always wash their hands before preparing food or feeding an infant or child.
- Wear shoes. Do not sit on the ground; use a mat.
  - Always wear shoes when walking outside to protect your body from parasites.
- Cook meat until it is hot throughout.
  - Never eat meat that is raw or pink inside.
  - Parasite eggs are killed by the heat. Then the meat is safe to eat.
Always use a latrine. Then, wash hands with soap. Wash raw foods with soap and water before eating.

Wear shoes. Use a mat to sit on the ground. Cook meat until it is hot throughout.
Parasite Transmission and Prevention in Water (Picture 5.4)

9. Show

¿ What do you see in these pictures?

10. Explain:

• Urine and feces from an infected person contain parasite eggs. The eggs infect snails. Snails release parasites which enter the skin of others in the water.
  o Like a mosquito that carries malaria, snails carry the parasite to others.
  o The parasites enter the skin of those who swim, wash or walk in the water.
  o Parasites enter the body of those who drink the water.

¿ How can we prevent infection?
  o Always use a latrine.
  o Purify your water before drinking.
  o If you see snails, don’t get in the water.
    - Gather water from a protected water source.
    - Find a new place to swim and wash.

11. Activity – The Village Walk

12. Probe

13. Inform

14. Practice and Coaching

15. Request

16. Examine
Urine and feces of an infected person contains parasite eggs. The eggs infect snails. Snails release parasites which enter the skin of others in the water.

Always use a latrine. Purify water before drinking. If you see snails, don’t get in the water.
Lesson 6: Regular Treatment of Parasites

Materials
1. Attendance Registers
2. Ask each woman to bring her child health card to this meeting *

1. Game: The sun shines on...

2. Attendance and Troubleshooting

3. Story: Deworming for All (Picture 6.1)

A health worker comes to Ruth’s house. She asks the children to come for deworming treatment. “My children were treated eight months ago,” says Ruth. “They aren’t sick.” “No,” says the health worker. “All children receive treatment every six months.” Ruth is confused. “Isn’t treatment only for the sick?”

4. Ask

? Ruth doesn’t think her children need treatment. Why?

? Do your children take deworming pills every six months? Why or why not?

Let’s compare your thoughts with the messages on the following pages.
The health worker is asking the children to come to a deworming campaign. 

“My children were treated 8 months ago. They aren’t sick anymore,” says Ruth.

“No,” says the health worker. “All children receive treatment every six months.”

Ruth is confused. Isn’t treatment only for the sick?
Deworming Pregnant Women and Children (Picture 6.2)

7. Show

? What do you see in these pictures?

8. Explain

- To prevent malaria, pregnant women will take one deworming pill in the fourth month of pregnancy.
  - Many pregnant women have worms already and don’t know.
  - Go to a health worker at the first sign of pregnancy.
  - When a pregnant woman’s belly begins to show and she feels movement inside, three months have passed. She is ready to take a deworming pill.
  - Women who take deworming pills have healthier pregnancies and infants.
- Beginning at 12 months of age, children should receive a deworming pill every six months.
  - Most children have worms and don’t even know it.
  - Treating children for worms prevents malnutrition.
  - Deworming pills help children to grow well and do well in school.
  - Deworming children will reduce parasite infections in others.
  - If you are not sure if your child has been treated, ask the health worker at your next visit.
To prevent malaria, pregnant women take a deworming pill in the fourth month of pregnancy.

Beginning 12 months of age, children should receive deworming pills every six months.
5. Show

? What do you see in these pictures?

6. Explain

- Child frequently scratches his anus.
  - Some parasites deposit eggs outside the anus.
  - The eggs cause itching especially at night.
- Worms are seen in the child feces.
  - Remember, not all worms can be seen!
  - The child may have worms even if you cannot see them.
- Child has bloated stomach or stomachache for three days.
- Child has poor growth and poor appetite.
  - Parasites living in the belly can decrease hunger.
  - Parasites slow down the child’s growth.
- Child has blood in the urine.
- If you see any of these signs, take the child to the clinic immediately.
  - Take the child on the same day.

? What are the symptoms of parasites in adults?
  - The symptoms are the same.
  - If you see one or more signs, go to the clinic.
Signs of Parasite Infection (Picture 6.3)

- Child frequently scratches his anus.
- Worms in the feces.
- Bloated stomach or stomachache for 3 days.
- Blood in the urine.
- Poor growth and poor appetite.

If you see any of these signs, take the child to the clinic immediately.
9. Show

What do you see in these pictures?

10. Explain

- Chase the illness far away. Offer extra food and fluids to the child each day. Give all the medicine from the health worker.
  - If caregivers give the same amount of food as normal or only half of the medicine, the thief will wait in the bushes for another chance to break in.
- Give the child his favorite foods, soft foods and foods rich in Vitamin A.
  - Vitamin A foods include mango, papaya, carrots, orange sweet potato, green leafy vegetables, meat and fish
  - Soft foods are easier for children to swallow. Eating favorite foods will encourage the child to eat.
  - Vitamin A foods help the child to recover quickly.
- Offer extra foods and fluids each day for two weeks after the signs have disappeared.
  - Extra foods help to strengthen the child’s body.

11. Activity: Health Card Check
Chase the parasites far away. Offer extra food and fluids each day. Give all the medicine from the health worker.

Give the child his favorite foods, soft foods and foods rich in vitamin A. Offer extra foods and fluids each day for two weeks after the child has recovered.