Outline for TV/radio program on malaria and malaria prevention.
PSI/Kenya
Feb 2002

1. Program 1 Message Strategy: Malaria – Transmission and High Risk Groups

Objectives:
- Explain that malaria is most of the time transmitted by mosquitoes and a little bit about the mosquito
- Explain that children under five and pregnant women are most at risk and why

Messages:
1) Malaria is usually passed from a sick person with malaria to a healthy person through the bite of an infected mosquito.
2) Malaria is usually transmitted through the bite of an infected mosquito.
3) Malaria is NOT transmitted by:
   a. Drinking dirty water
   b. Getting rained on
   c. Witchcraft
   d. Eating certain food stuffs like chewing sugarcane, fresh fruits and maize.
4) Pregnant women and children under 5 years are more at risk of getting malaria because their bodies are not as strong as others in fighting the malaria disease.
5) What can happen to pregnant women who get malaria:
   a. The mother can get anemic (this can be described in simple layman’s language), which makes her very tired, and can slow the growth of the baby, which can lead to low birth weight.
   b. The mother could miscarry.
   c. The mother and unborn baby could even die.

Discussion Points:

Question: How common and serious is the malaria problem in Kenya?
- Malaria is very common and widespread problem in Kenya, especially the coastal and lake regions.
- The worst affected are young children under five year’s and pregnant women.
- Malaria kills more children in Kenya than any other disease.
- Over 72 children die of malaria everyday.
- One common reason why children die from malaria is because parents delay early treatment for malaria.
- Whenever you notice symptoms of malaria like fever, vomiting, refusal to eat it is good to give early treatment of malaria immediately and if the symptoms worsen then take the child to the clinic.

Question: Can you tell us how one gets malaria?
- Malaria is most of the time caused by the bite of a female anopheles mosquito.
- This mosquito bites at night.
- Normally the peak biting time is during the late night and early morning.
• This is why it is most important to sleep under an insecticide treated net to prevent you and your children from mosquito bites when they are asleep.
• This gives you all night protection.

Question: What about getting malaria from drinking dirty water or being rained on (mention other misconceptions)?
• Malaria is most of the time caused by the bite of an infected mosquito.
• It is not possible to get malaria by drinking dirty water or being rained on or any other way except for getting bitten by a mosquito.
• Malaria is a disease caused by a small parasite that gets into your body when a mosquito bites you.
• The parasite goes into your liver and your blood and this is what makes you sick.
• When another mosquito comes to bite you, it picks the malaria parasite from your blood, and later, when it bites someone else, it gives him or her the malaria parasites that it picked from you?

Question: Tell us a little bit more about this mosquito?
• The mosquito that transmits malaria is called the anopheles mosquito
• It is only the females that transmit malaria because they need the blood to develop their eggs.
• They only breed in clear, clean, standing (still) water.
• These mosquitoes can fly up to seven kilometers away from where they were hatched.

Question: What should people do to protect themselves from malaria?
• Well, as I said earlier, it is best to prevent yourself and your family from getting bitten by mosquitoes at night.
• Sleeping under an insecticide treated mosquito net is the best prevention from malaria.
• We will be talking more about the prevention of malaria in the next show.

Question: Yes yes, so back to malaria. Can you tell us who is most likely to get malaria and why?
• Young children under five year’s old and pregnant women are more likely to get malaria than other people.
• The reason these young children and pregnant women are more likely to get malaria is because they have less immunity to malaria.
• People who live in malaria areas and get repeatedly infected with malaria tend to build up some immunity to malaria over time, so when they get older they are less likely to get sever symptoms if they get infected.
• Young children however, have not developed any immunity to malaria, so if they get infected they are much more likely to get very sick and even to die from malaria than adults.
• Pregnant women are also more likely to get very sick from malaria because when they become pregnant, they loose the immunity that they have built up over time against malaria.

Question: And what can happen to pregnant women if they become infected with malaria?
• The consequences can be very serious if a pregnant woman gets malaria.
• They can miscarry or have an abortion, they become anemic which makes them extremely tired and makes the baby not develop properly.
- They can deliver premature babies i.e. before the expected date of delivery
- They can give birth to underweight babies who are likely to die than normal babies.
- They may not respond well to complications during delivery especially whenever there is excessive bleeding.
- And last of all and most serious, malaria can cause death for the baby and the mother.
- So as you can see from all these possible complications and problems if a woman gets malaria during pregnancy, it is a very serious problem. Women must take extra care not to get malaria during pregnancy.

Question: And what can women do to make sure they don’t get malaria during pregnancy?
- Pregnant women must go to the clinic to get malaria prevention medicine (IPT). This is normally given during their second trimester and repeated in the third trimester.
- Pregnant women should ensure they take their entire malaria prevention dose.
- They must also make sure to sleep under insecticide treated mosquito nets.

HEALTH TIPS:
- Malaria is transmitted only by the bite of an infected anopheles mosquito. Drinking dirty water, catching cold, or rain does not cause malaria.
- Malaria can be very dangerous, especially for young children and pregnant women
- Malaria mosquitoes bite at night when you are sleeping. Prevent malaria in your family by ensuring that everyone sleeps under insecticide treated mosquito nets. If you can not afford insecticide treated mosquito nets for everyone priority must be given to children below five years and pregnant women in the household
- Whenever you notice malaria symptoms like (fever, vomiting, headache, refusal to eat or breastfeed in infants) in a person it is important you give early treatment immediately, if these symptoms persist within 24-48 hours then take the person to the nearest hospital or clinic. Do not wait.

QUIZ QUESTIONS:
1) What time of day do mosquitoes bite that transmits malaria bite?
2) Who is the most at risk of getting malaria and why?
3) What can happen to a pregnant woman if she gets malaria?
4) What is the most effective way to prevent malaria?

INTERVIEWS/GUEST SPEAKERS:
- Talk to someone from the Division of Malaria control about the situation of malaria in Kenya.
- Possibly someone from UNICEF could be interviewed also?

VIDEO (later for TV program):
1) Show clinic with children suffering from malaria. Also show a pregnant woman who suffers from malaria.
2) Show clips of mosquitoes biting a person
3) Show clip of insecticide treated mosquito net as best prevention
4) Show breeding site of anopheles
2. Program 2 Message Strategy: Malaria Prevention and the Insecticide Treated Mosquito Net

Objectives:

- Explain why the insecticide treated mosquito net is the most effective prevention from malaria
- Explain what is an insecticide treated mosquito net and how do you use it

Messages:

Recap of messages from last episode

1) To prevent getting malaria, you must prevent getting bitten by mosquitoes. Most malaria mosquitoes bite late at night while you are sleeping.

2) The best way to prevent getting malaria is for everyone in your family to sleep under an insecticide treated mosquito net. You must treat your mosquito net with an insecticide such as Power Tab, Fendona, Iconet and Solfac before you start using your net. Supanet comes with Power Tab insecticide in the package.

3) Buy enough mosquito nets for everyone in your family to sleep under one. But if you can’t afford to buy nets for everyone, then give priority to children under five years and pregnant women. Children under five years and pregnant women do not have enough immunity against malaria, so it is very important that they sleep under insecticide treated mosquito nets.

4) Sleep under an insecticide treated mosquito net all year round because malaria mosquitoes can bite you at any time during the year but more so after the rainy seasons.

Discussion Points

Question: So last week we talked about how malaria is transmitted by a mosquito called anopheles that bites at night. So can you tell us what is the most effective way to prevent malaria?

- It is only logical that if anopheles mosquito bites you at night you will get malaria and that one way to prevent malaria is to avoid getting bitten by these mosquitoes at night.

- The only really effective way to prevent getting bitten late at night when you are sleeping is to sleep under an insecticide treated mosquito net.

- This is a sure way of getting all night protection against mosquito bites.

Question: Yes, you mentioned the insecticide treated mosquito net last week. Can you tell us more about insecticide treated mosquito nets?

- The insecticide on a net will kill mosquitoes that rest on the net and repels them (or keeps them away) from the net.

- This is very important because mosquitoes can bite you through an ordinary net if your body is in contact with the net while sleeping, and if there are any small holes in the net or your net is not tucked in properly, the mosquito can come inside and bite you.
• If you dip your net with an insecticide such as Power Tab, Fendona, Iconet, or Solfac the mosquitoes cannot bite you through the net, and if they rest on the net they will smell the insecticide and it will kill it.
• If you sleep under a treated net, you actually get double the protection from malaria that you would get from an ordinary net.

Question: So I hear you that nets dipped in an insecticide are a cost effective way of preventing malaria, but what about other methods like coils and aerosol sprays?
• Well, coils and aerosol sprays work by repelling mosquitoes from the room, but they don’t last long, and as soon as the coil finishes burning, or after several hours of aerosol spraying, the mosquitoes are back.
• The problem with these methods is that they only protect you for a couple of hours. And in addition to that, people usually burn them in the evening before they go to sleep.
• But when did we say that the malaria mosquitoes bite? They bite late at night when people are sleeping. So you need an all night prevention method. And insecticide treated mosquito nets work all night to kill and repel mosquitoes away from your net.
• Nets treated with insecticide are a cost effective way of preventing malaria compared to other methods because you only buy a mosquito net once a year and have it treated twice in a year and this will cost you on average less than Ksh.500. This compared to other methods like spraying which costs you on average Ksh.100 to 400 per month and in a year you will have spend more than 1,200 to 4,800.

Question: I see, so insecticide treated nets are more effective than other methods such as sprays and coils. But what about this insecticide? Is it safe for children and pregnant women?
• Absolutely. The insecticides that are recommended to treat mosquito nets such deltamethrin which is Power Tab, has been tested an approved by the World Health Organization to be completely safe for people, including pregnant women and children.
• We have other re-treatment solutions like Fendona, Iconet and Solfac.
• In fact, the World Health Organization has recommended that sleeping under insecticide treated mosquito nets is the most effective way to prevent malaria.

Question: But exactly how effective are these treated nets, and when should people be sleeping under them?
• Treated nets are now known by WHO to be the most effective way to prevent malaria.
• We expect that if we can get all the pregnant women and children under five years in Kenya to sleep under treated nets, we can reduce malaria by half.
• Many children can be saved if we can convince the parents that ITNs are actually life saving and essential health products to have in the household.
• The problem is that now too many people think that mosquito nets are just for preventing nuisance biting.
• They don’t realize that treated mosquito nets can actually save their lives and that it is essential that everyone in the household especially the children need to sleep under them.
• People should sleep under them all year round, not just after the rainy season when there are more mosquitoes.
• The malaria mosquitoes bite all year round, and therefore people must protect themselves all year round.
Question: For whom is it most important to sleep under an ITN?
- Definitely it is most important for young children and pregnant women to sleep under insecticide treated nets.
- This is because as we have discussed before, young children and pregnant women are most at risk of getting severe malaria and they are most at risk of dying from malaria. So they should sleep under ITNs all year round.

Question: So where do people get these insecticide treated nets and how much do they cost?
- Right now the only mosquito net in Kenyan shops that comes with an insecticide treatment kit is called Supanet and it comes with an insecticide treatment kit called Power Tab.
- It only costs Ksh. 350 shillings in the shops. You have to treat the net when you buy it, which only takes about 5 minutes.
- Power Tab is an insecticide is just a tablet that you dissolve in about a liter of water and then dip your net and mix your net completely in the solution, and then lay it out under a shade to dry. We will talk more about the insecticide next week though and how to treat your net.

HEALTH TIPS:
- Sleeping under an insecticide treated mosquito net is the most effective prevention from malaria.
- The insecticide will kill and repel mosquitoes, making the treated net more effective in preventing malaria as compared to an untreated net.
- Young children and pregnant women are the most vulnerable to malaria.

QUIZ QUESTIONS:
1) Why are insecticide treated mosquito nets the most effective prevention against malaria?
2) What does the insecticide on the net do?
3) What is the advantage of treated nets as compared to untreated net?

INTERVIEWS/GUEST SPEAKERS:
- Guest speaker should be someone from PSI or CDC?
- You could have a panel of people, including Chris from PSI to talk about Supanet and Power Tab?

VIDEO (For TV later):
1) Show a village scene with a net in the bedrooms
2) Show someone treating the net
3) Show and discuss the other methods while explaining why the ITN is more effective
4) Show a Supanet and Power Tab
3. Program 3 Message Strategy: The Insecticide and How to Treat a Net

Objectives:

- Explain why treated nets are better than untreated nets
- Explain how to treat a net
- Answer common questions about the insecticide

Messages:

Recap messages from previous episode

1) It is important to treat your mosquito net with insecticide because:
   a. The insecticide on the net will kill mosquitoes that rest on the net.
   b. The insecticide on the net will also keep mosquitoes away from the net.

2) There are special insecticides used for treating mosquito nets. Power Tab is one of these insecticides. You may see others on the market. You should only buy a kit that is specifically for treating mosquito nets and they should include instructions. The insecticides for treating mosquito nets can come in a tablet or in solution.

3) You must dip your mosquito net with an insecticide such as Power Tab as soon as you buy the mosquito net and before using it. Then you must re-treat your net again later because the insecticide loses power to kill and repel mosquitoes over time. You must retreat your mosquito net before each rainy season, at least 2 times in a year.

4) Power Tab is safe to all people, including children.

Discussion Points:

Question: Last week we talked about how insecticide treated mosquito nets are the most effective prevention against malaria. Can you tell us again why ITNs are the most effective prevention from malaria?
- ITNs are the most effective malaria prevention because the insecticide on the net will kill mosquitoes that rest on the net and they repel mosquitoes away from the net.
- The ITNs also protect you from getting bitten all night long. This is important because as we discussed in earlier sessions, the mosquitoes that transmit malaria bite at night when people are asleep. So the best protection from malaria is something that protects you from mosquito bites at night.
- The insecticide treated mosquito net is the most effective way to protect you from those mosquito bites

Question: So let’s talk a little bit more now about this insecticide treated net. How exactly do you treat your net? I think we have a lot of listeners out there who have never treated their nets and are curious to know how to do it.
- One main insecticide treatment kit that is available in many shops throughout the country and it is very affordable at only 50 shillings is called Power Tab.
- Power Tab is an insecticide tablet and it comes with an instruction sheet, a measuring bag for the right amount of water and a pair of gloves in case you have sensitive skin.
- Treating your net is a very simple process, and will only take you about 5 minutes.
You require a basin, one liter of water and deltamethrine (power tab)
You just put the tablet in about a liter of water measured from the bag, then you mix the
tablet until it dissolves, and then you put your net in the solution and mix it all around for
several minutes until all the solution is in the net. Then you lay your net out under a shade
to dry.
We recommend that you either lay your net on your bed to dry or on a mat in the shade
outside. Don’t hang it up or the insecticide might drip off. The advantage of laying it on
your bed is that the insecticide will also kill other household insects like lice, bed bugs,
and cockroaches.
There are other insecticides like Fendona, Iconet and Solfac.

Question: Well that doesn’t sound very difficult. Can you treat any net with this insecticide?
Yes, Power Tab can be used on any net.
If you don’t have a net, you can buy Supanet, and you get a free Power Tab treatment kit
included in package with the net. Supanet only costs Ksh.350 shillings.

Question: Is this insecticide safe for children? What if a child chews on the net?
Power Tab insecticide is completely safe for children and adults.
It was tested and approved by the World Health Organization for treating mosquito nets.
As a rule all insecticides should be kept away from children.

Question: How often should I treat my mosquito net?
You must retreat your net 2 times in a year, or once before each rainy season.
You have to retreat your net twice a year because after some time the insecticide wears
off the net and it will no longer kill and repel mosquitoes.
Also if you wash your net 3 times, then you must retreat it because washing the net will
wash the insecticide off the net.

Question: And where can people find this Power Tab treatment kit for mosquito nets?
You can find Power Tab net treatment kits in shops, supermarkets, pharmacies, and dukas
throughout Kenya.
Power Tab costs Ksh 50 only.
We encourage everyone to go out and treat his or her net today. It is safe, easy, and
affordable.
It only takes 5 minutes to save your child’s life.

HEALTH TIPS:
• Power Tab is an insecticide for treating mosquito nets that kills and repels mosquitoes
away from your net
• A treated net is more effective than an untreated net in preventing malaria
• Treating your net is safe, effective, and affordable. It only cost 50 shillings for a treatment
kit
• Treat your net 2 times in a year, once before each rainy season.

QUIZ QUESTIONS:
1) What does the insecticide on a mosquito net do?
2) How often do you have to retreat your mosquito net?
3) How much does an insecticide treatment kit cost, where can you find it and what is it
called?
INTERVIEWS/GUEST SPEAKERS:

1) Interview someone from PSI, or Amref, or CDC to explain why treating a net is important.
2) Chris or Carol could be on a panel talking about Power Tab.
3) Interview a person in a village who treated their net and now they don’t have as much malaria in their family, and they don’t get bothered by mosquitoes anymore.

VIDEO:

1) Show a demonstration of someone treating a mosquito net. Show Power Tab
2) Interview someone in a village who treats their net(s) and says how they don’t get as much malaria in their family, they save time and money that they would have had to spend on treatment, lost work days, school days etc, and they don’t get bothered by mosquitoes anymore buzzing in their ears or around the net.
3) Interview a nurse in a clinic talking to pregnant women about ITNs and she says that she recommends to all the pregnant women in the antenatal clinics how they should all sleep under an ITN to protect themselves and their babies from malaria
4. Program 4 Message Strategy: Symptoms of Malaria and Early Treatment Seeking Behavior

Objectives:

- Explain what are the common symptoms of malaria
- Explain what people should do if they suspect they or anyone in their family gets malaria
- Explain what is the first line drug

Messages:

Recap messages from previous episode

**Malaria symptoms and early treatment seeking behavior**

1) If you or anyone in your family has body hotness, and any of the following symptoms (fever, headache, lose of appetite, vomiting) you could have malaria.

2) Once you notice the above symptoms take the recommended treatment which is a dose of SP drugs such as fansidar, orodar, falcidin. Do not wait until the illness becomes severe before seeking treatment because malaria can cause severe illness.

3) If the symptoms become worse like you notice confusion and convulsion, you must take the patient to the nearest hospital or clinic.

4) Other symptoms of malaria can include shivering, sweating, joint pains, headache, diarrhoea, or vomiting. If the malaria is very severe, the person could have confusion, fitting.

**Malaria treatment**

1) Malaria should be treated first with SP drugs such as fansidar, orodar, falcidin.

2) Return to the health provider if the body still feels hot after two days of taking the medicine.

3) Chloroquine is no longer effective in malaria treatment.

4) Return to the health provider immediately if the condition worsens while the person is taking the medicine.

**Additional care for the malaria patient:**

1) When the patient is hot, wipe them tepid (lukewarm) towel. When the patient is cold, cover them with a blanket.

2) Make the patient drink a lot of home available fluids, and eat as much as possible.

3) Give the patient paracetemol to reduce the body hotness, headache, and joint pain.

Discussion Points:

Question: Can you tell me what are the most common symptoms of malaria?

- The most common symptoms of malaria are fever, headache, and joint pains.
- As the malaria gets worse, the person can experience diarrhea, vomiting, convulsions, disorientation or lack of coherence when they are talking, they become delirious.
- All of this can happen in a matter of a few days if the malaria is not treated.
Question: So what should someone do if they think they or someone in their family has malaria?

- If you or someone in your family starts to have a fever combined with any of these other symptoms like headache or joint pains, they should be given first line treatment which is a dose of SP drugs such as fansidar, orodar, falcidin.
- If the condition of the patient gets worse and you notice confusion and convulsions then take the patient immediately to the health clinic. Do not wait to see if the patient gets better. This delay may mean the difference between life and death.
- Malaria can become severe so quickly that if the patient is not taken immediately to the clinic and given treatment, they could die.
- Too often the problem in Kenya is that parents wait and give the child paracetemol such as Panadol which may reduce the fever, but does not kill the malaria parasite. So the child becomes worse, and by the time that they reach the clinic, it may be too late. I cannot stress enough that you should not hesitate in bringing the child to the clinic once you notice the condition of the child is getting worse.
- Incase you go for self medication ensure you buy the right drugs.

Question: At the clinic, what is the treatment most commonly given for malaria?

- Kenya recently changed the recommended drug that is given to malaria patients.
- The recommended drug that is now given is SP like fansider, orodar, falcidin. The famous chloroquine is no longer recommended.
- Some people have heard of fansidar, which is an example of an SP drug.
- Kenya changed to recommended drug treatment from chloroquine to SP because the malaria has developed resistance to chloroquine. This means that the chloroquine was no longer working to kill malaria parasite. So we now have SP such as fansidar which is more effective in killing malaria parasite.
- If SP does not work, then refer the patient to the clinic. The clinic will give the proper treatment, and the parent must make sure that the child/patient takes the entire treatment according to the instructions given.
- If the child or the person with malaria does not feel better in 2 days, then they must be taken back to the clinic.

Question: What else can the parent or caretaker do to help the person with malaria?

- In addition to giving the correct dose of medicine prescribed by the health care provider, the person at home can cover the patient with a blanket when they are cold, and sponge them with a lukewarm towel with they are hot with fever.
- Paracetemol such as Panadol can also be given to reduce the fever. But it is most important that the patient take the correct drug according to the prescription of the health care provider, and he/she must take the entire course of treatment, whether they feel better or not.

Question: What about pregnant women? Can they take the drugs if they get malaria?

- Yes, pregnant women can take the drugs for malaria.
- However, it is more important for pregnant women to prevent getting malaria in the second and third trimester.
- A pregnant woman must go to the clinic as soon as she gets in her second trimester which is between 3 to 6 months and third trimester, the health care provider will give her a preventive dose of IPT so that she does not get malaria.
• She must also be sure to sleep under an insecticide treated mosquito net in order to prevent malaria.

HEALTH TIPS:

• The first symptoms of malaria can include fever, headache, and joint pains.
• If a person experiences any of these symptoms they must take the recommended treatment which is taking a full dose of SP drug such as fansidar. If the symptoms get worse then go immediately to the health clinic. Do not wait, because malaria can become life threatening in a matter of 1-2 days.
• The person should take the entire course of medicine.
• Pregnant women especially must go to the clinic as soon as they get into the second trimester (3-6 months) and a repeat in the 3rd trimester. They will be given a preventive dose of IPT so that they do not get malaria. They must also sleep under insecticide treated mosquito nets.

QUIZ QUESTIONS:

1) What are three common symptoms of malaria?
2) What should a person do if they get any of these symptoms and why?
3) What should pregnant women do in order to prevent getting malaria?

INTERVIEWS/GUEST SPEAKERS:

1) Possible people to interview would be someone from the ministry of health, a clinic nurse, a doctor, or someone from an NGO.

VIDEO (For later):

1) Show a clinic with people coming in that have just suspected malaria in their child
2) Interview a mom who brought home her child who is now well and was giving him/her the proper drugs. She now has an insecticide treated mosquito net