



Republic of Kenya

MINISTRY OF PUBLIC HEALTH & SANITATION

ESSENTIAL Malaria Action Guide FOR KENYAN FAMILIES



MAY 2012



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Essential Malaria Action Guide for Kenyan Families

Published by:

Ministry of Public Health and Sanitation

Division of Malaria Control

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Table of Contents

Forward.....	ii
Acknowledgement.....	iii
List of Acronyms	iv
Introduction.....	1
Why the EMA Guide	2
Who is Going to Use this Guide?	2
Section 1: Deciding on the Malaria Communication Interventions to Undertake	4
Key Essential Malaria Actions.....	5
Section 2: Designing the Communication Approach.....	6
2:1 Long-Lasting Insecticide-Treated Net Use.....	6
2:2 Malaria Case Management.....	7
2:3 Indoor Residual Spraying	8
2:4 Prevention of Malaria during Pregnancy.....	9
Section 3: Communication Channels and Approaches	10
Annex 1: Myths, Misconceptions, and Key Facts about Malaria	11
A1: FACTS ABOUT MALARIA IN GENERAL.....	11
A2: FACTS ABOUT MALARIA CASE MANAGEMENT	12
A3: FACTS ABOUT LONG-LASTING INSECTICIDE-TREATED NETS.....	13
A4: FACTS ABOUT PREVENTION OF MALARIA IN PREGNANCY	14
A5: FACTS ABOUT INDOOR RESIDUAL HOUSE SPRAYING	15
Annex 2: Sample Work Sheets to Help Choose the Key Communication Activities.....	16
List of Contributors	18

Forward

An increasing wealth of experiences and evidence, especially in Kenya, demonstrate the value of effective, evidence-based social and behavior change communication (SBCC) approaches in mobilizing political support and leadership for malaria control at all levels; empowering people affected by malaria to use long-lasting insecticide-treated nets (LLINs); reducing diagnosis and treatment delays; improving treatment-seeking behavior; and boosting adherence to early diagnosis and prompt treatment.

It is widely accepted that communication is an essential component in the malaria control effort; however, communication can only be effective if all partners agree to consistently and universally implement a common set of strategies and uphold key sets of messages desired for change at the household level.

Kenya's Ministry of Public Health and Sanitation, through the Division of Malaria Control (DoMC), recognized the need for consistency and coordination among partners implementing malaria-related advocacy, communication and social mobilization (ACSM) activities. Therefore, the ministry mandated that the ACSM technical working group facilitates strategic coherence and harmonization of malaria communication approaches as far as prevention and control is concerned.

I am honored that the ACSM technical working group with participation of more than 10 partner organizations—C-Change Project, USAID/PMI, WHO-Kenya, JHPIEGO, KeNAAM, SHF, the Kenya Red Cross Society, RTI, PSI, UNICEF-Kenya, and representatives from provincial and district health management teams—were part of the team that identified and harmonized a set of essential malaria actions (EMAs). These EMAs will serve as the foundation for all SBCC activities and interventions for malaria prevention and treatment in Kenya in the coordinated approach mandated by the DoMC.

The seven EMAs detailed in this document represent an historic change in malaria communication policy and unprecedented cooperation among partners. It is my belief that the EMA guide will play a critical role in increasing knowledge, motivating prevention and treatment behavior among populations at risk, and supporting our vision of a malaria-free Kenya.



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Acknowledgement

The Division of Malaria Control (DoMC) is grateful to those who contributed to the development and completion of the Essential Malaria Action Guide for Kenyan Families, a process that commenced with a one-day stakeholders' workshop held at Kivi Milimani Hotel on August 16, 2011. Participants in thematic working groups representing the four strategic interventions for malaria control—long-lasting insecticide-treated net (LLIN) promotion, case management, prevention of malaria in pregnancy, and indoor residual spraying (IRS)—articulated and generated a list of relevant communication issues. This gave rise to the first draft of the document that was circulated to the participants for review and input before a second draft was compiled incorporating the comments received.

Thanks are also due to the health managers and health workers from four districts—Rachuonyo, Bunyala, Homabay and Msambweni—where the document was pretested to ensure it responds to the needs of the intended users. They dedicated time to review the document, and their valuable input greatly assisted in shaping the final product.

Special thanks are extended to Dr. Elizabeth Juma (former head of the DoMC) and the late John Moro (advocacy, communication and social mobilization [ACSM] focal person) for steering the development process and coordinating partnerships with support from Dr. John Logedi (head, DoMC), Peter Njiru and James Sang (ACSM technical working group). C-Change staff Thaddeus Pennas, senior communication specialist, Ben Adika, malaria program manager, and Jane Alaii, regional monitoring and evaluation officer, who provided the technical input on social and behavior change communication. Thanks also to Athuman Chiguzo for compiling the document with stakeholder input.

Finally, we acknowledge the generosity of the United States Agency for International Development/ President's Malaria Initiative Kenya Mission through FHI 360/C-Change Project for supporting the development of the Essential Malaria Actions Guide for Kenyan Families.



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List of Acronyms

ACT	Artemisinin-based Combination Therapy
ACSM	Advocacy, Communication and Social Mobilization
ANC	Antenatal Care
BCC	Behavior Change Communication
C-Change	Communication for Change
DoMC	Division of Malaria Control
EMAs	Essential Malaria Actions
FAQs	Frequently Asked Questions
IPTp	Intermittent Preventive Treatment in Pregnancy
IRS	Indoor Residual Spraying
LLINs	Long-Lasting Insecticide-Treated Nets
NMS	National Malaria Strategy
PMI	President's Malaria Initiative
PSI	Population Services International
RTI	Research Triangle International
SBCC	Social and Behavior Change Communication
SP	Sulphadoxine Pyrimethamine
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

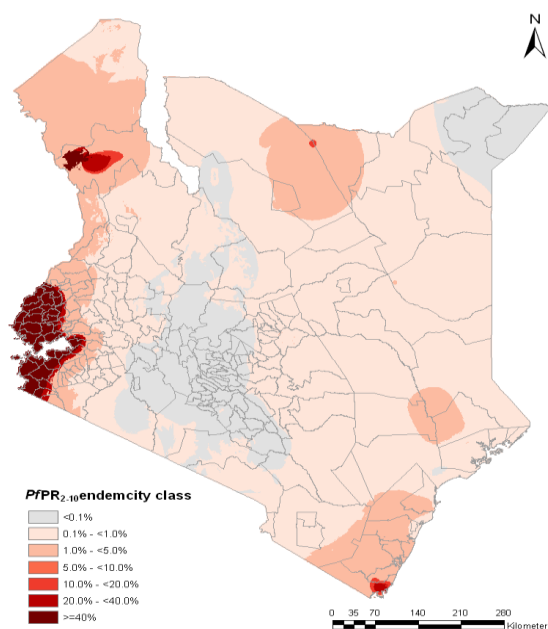
Introduction

Malaria in Kenya continues to be a major public health and socio-economic problem affecting millions of people every year. Despite the considerable efforts to control and treat the disease, it accounted for 34 percent of the outpatient hospital visits in 2010. However, increasing evidence shows an overall decline in the malaria endemic areas and an expansion of low transmission areas.

As the malaria patterns change, the appropriate malaria strategic intervention needs to be selected and implemented in accordance with the National Malaria Policy (April 2010) and the National Malaria Strategy (NMS) 2009-2017. The intervention will then dictate which key communication activities are to be implemented in each locality.

The country has four malaria epidemiological zones.

- **High epidemic-prone areas:** In the western highlands of Kenya malaria remains seasonal and epidemics are experienced. The epidemic nature makes the whole population vulnerable and most often results in a high death rate.
- **High malaria transmission (endemic) areas:** These areas include the Lake Victoria region in Nyanza, western Kenya, and the coastal region. Malaria transmission is intense throughout the year.
- **Seasonal malaria transmission areas:** These areas include the arid and semi-arid regions of the north and the southeastern parts of the country, which experience short periods of intense malaria transmission during the rainy seasons.
- **Low malaria risk areas:** This area covers the central highlands of Kenya, including Nairobi.



Under Objective 5 of the NMS, a 2014 target was set to ensure at least 80 percent of people in malarious areas have knowledge of malaria prevention and treatment through strengthened ACSM capacities for malaria control. With increased partnerships under the stewardship of DoMC, the government hopes to realize this target by scaling up SBCC interventions for malaria prevention and treatment at the community and household level in various parts of the country.

To enhance the increased coordination of partners implementing malaria ACSM activities, the DoMC's ACSM technical working group set out to develop a malaria communication guideline that will ensure stakeholders communicate only clear, consistent, accurate, and culturally relevant messages. The ACSM partners with representation from various organizations held a one-day message harmonization workshop that identified and prioritized the seven EMAs contained in this guide.

The EMAs were then pretested among health workers in four districts that represent the four malaria zones in Kenya as follows—Bunyala in Western Kenya, Homa Bay in Nyanza, and Msambweni in Coast Province, all endemic zones. Rachuonyo was selected to represent a district where IRS is practiced in the epidemic zone. The districts were also selected for their ability to provide health worker input and overall regional diversity.

WHY THE EMA GUIDE

This EMA guide builds on the National Malaria Communication Strategy (2010–2014) that outlines the strategic approach, communication channels, tools, and tactics for malaria communication in Kenya. It defines the nationally agreed upon and harmonized essential malaria actions crucial in prompting the desired prevention and treatment-seeking behavior to combat malaria.

These are core elements of the DoMC malaria control strategy. The guide will enable district health teams, partners, and stakeholders implementing ACSM activities to:

- Systematically follow an SBCC approach to select the appropriate malaria communication interventions
- Harmonize their messaging so that it focuses on the performance of essential actions by the target audience
- Eliminate approaches that no longer support malaria control

In recognition that communities have barriers to adopting desired actions, the EMA guide has outlined some of the myths/misconceptions and frequently asked questions related to selected malaria interventions so as to prepare the users to counter these anticipated barriers at the community and household level.

WHO IS GOING TO USE THIS GUIDE?

The primary users of the EMA guide are district health managers, health workers, and NGO partners that are involved in planning and implementing malaria SBCC activities at the community level. It aims to equip them with illustrated EMAs that list DO ABLE actions to be implemented at the household level.

As a planning tool, the EMA guide will help the user to choose the appropriate DO ABLE malaria actions based on the epidemiological location where the user is implementing ACSM activities.

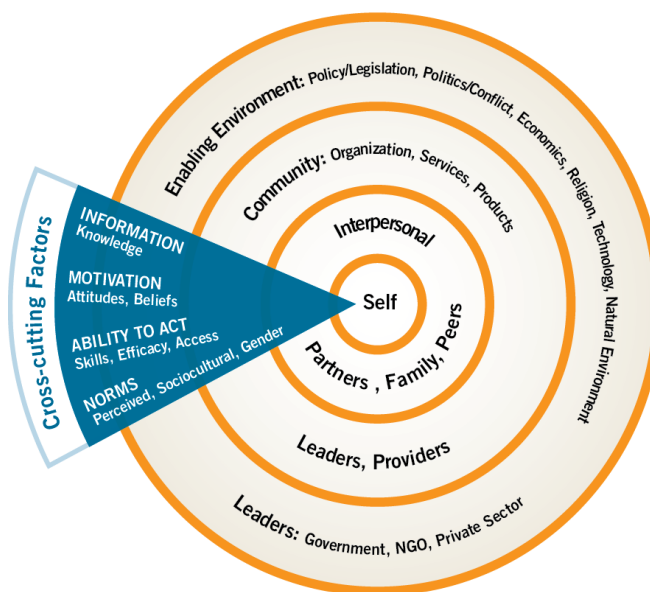
HOW TO USE THIS GUIDE

This guide follows a theory-based and research-driven communication model that seeks to motivate change at the individual, community, and social levels. It does this by:

- using an interactive, planned and strategic process
- applying a socio-ecological model—examining social, cultural, economic factors as well as concepts relating to individual behavior change
- operating through three key strategies—advocacy, social and community mobilization, and behavior change communication (BCC)

Using the socio-ecological model (see graphic) as the guiding framework for an SBCC intervention, the next phase is to enter into a rigorous application of an

A Socio-Ecological Model for Change



*These concepts apply to all levels (people, organizations, and institutions). They were originally developed for the individual level.

SOURCE: Adapted from McKee, Manoncourt, Chin and Carnegie (2000)

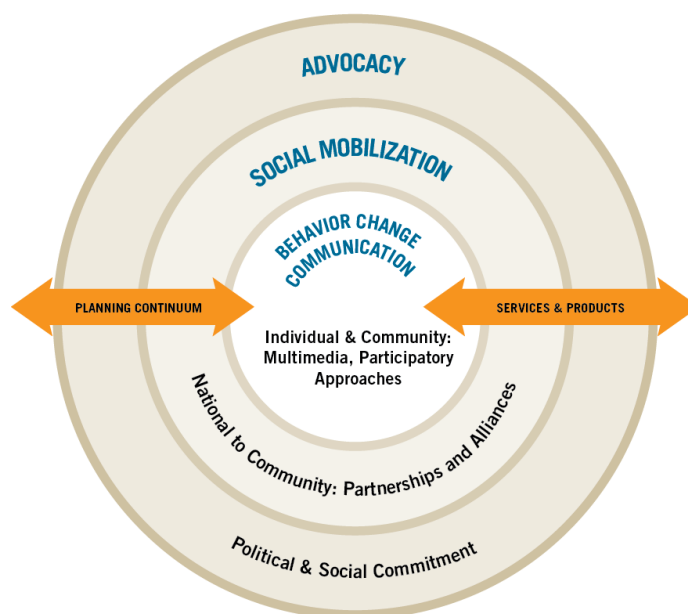
intervention development process to:
1) understand the situation; 2) focus and design the intervention; 3) create the materials and components; 4) implement and monitor; and 5) evaluate and re-plan (see graphic).

Step One: Understanding the Situation

The first step in any SBCC intervention is to understand the situation in the intervention district. Establish which malaria epidemiological zone the district falls under and what malaria control activities are being implemented. Identify the audiences, barriers, causes, effects, and situations that inhibit the adoption and consistent application of a desired behavior, for example regularly sleeping under an LLIN.

With the changing malaria pattern in mind, the EMA guide will specify which SBCC approaches and activities are relevant for each endemic area to avoid situations where partners attempt to adopt all approaches and communicate all malaria messages everywhere.

Three Key Strategies of Social Behavior Change Communications



SOURCE: Adapted from McKee, N. Social Mobilization and Social Marketing in Developing Communities (1992)

Step Two: Focusing and Designing

After the necessary research and assessments have been completed, the second step is to identify the essential action(s) the target audience is either failing to perform or inconsistently performing as well as the partners, allies, key opinion leaders, and various levels of the community that can reinforce the selected EMAs.

This guide is designed to help the user develop an SBCC intervention during step one and step two of the C-Planning process shown right. Information on the other elements of C-Planning: creating, implementation and monitoring, and evaluation and re-planning can be found at <http://c-changeprogram.org/focus-areas/capacity-strengthening/sbcc-modules>.



SOURCE: Adapted from Health Communication Partnership, P-Process Brochure, CCP at JHU (2003); McKee, Manoncourt, Chin, Carnegie, ACADA Model (2000); Parker, Dalrymple, and Durden, The Integrated Strategy Wheel (1998); AED, Tool Box for Building Health Communication Capacity (1995); National Cancer Institute: Health Communication Program Cycle (1989).

Section 1: Deciding on the Malaria Communication Interventions to Undertake

The first step for an implementer of malaria communication activities, as outlined above, is to understand the malaria epidemiological situation or zone where your district is located. This will help establish what specific malaria control interventions should be or are being implemented. Answers to the following questions will guide the intervention:

(Note: sample work sheets are included at the end of this guide for use.)

Question	Options	Tick appropriately
Which malaria epidemiological zone does the district fall in?	High malaria transmission area? Endemic	
	Highland epidemic-prone area?	
	Seasonal malaria transmission area?	
	Low malaria risk area?	
Which malaria control interventions are being implemented?	LLIN distribution	
	Malaria case management	
	Intermittent preventive treatment of malaria in pregnancy (IPTp)	
	Household IRS	

As a guide, the National Malaria Policy provides specific and recommended interventions for each malaria epidemiological zone as follows:

Epidemiological zone	Recommended interventions				
	Health Education	Case Management	LLIN	IRS	IPTp
High malaria transmission area	X	X	X		X
Highland epidemic area	X	X	X	X	
Seasonal low transmission areas	X	X			
Low malaria risk areas	X	X			

Note: Case management, SBCC, and surveillance are common interventions in all the epidemiological zones.

The intervention selected for the respective district will then guide which key EMAs to highlight through communication Interventions.

KEY ESSENTIAL MALARIA ACTIONS

While examining the four key strategic interventions for malaria control in Kenya outlined in the National Malaria Strategy (NMS), partners agreed upon these seven EMAs during a national consensus workshop in August 2011:

What	Who	Why / Benefits
Strategic Intervention 1: Promoting the Use of LLINs		
1. Hang and sleep under LLINs every night.	All family members	Sleeping under LLINs is the most effective prevention method against malaria for you and your family.
2. Take care of your LLIN by repairing/stitching holes or tears, washing it regularly with soap.	Husband/wife	Repair and washing of the LLIN will help to maintain the effectiveness of the insecticide.
Strategic Intervention 2: Promoting Malaria Case Management		
3. Whenever a family member, especially children under 5, has a FEVER take him/her to the nearest health facility within 24 hours of onset for a test and treatment.	Parents/caregiver	Early diagnosis and prompt treatment will ensure confirmation of what the cause of FEVER is to enable its CORRECT treatment.
4. Complete the full dose of anti-malarial medicine (ACT) as prescribed by a health worker.	Patients/parents/caregivers	It is important to complete all prescribed ACTs according to instructions to be completely cured of malaria.
Strategic Intervention 3: Promoting Indoor Residual Spraying¹		
5. ALLOW your house to be sprayed during the indoor residual spraying period by cooperating with the spray team.	Family members	IRS helps families keep their houses free from malaria-transmitting mosquitoes.
6. COMPLY with post-spraying instructions—do not wash, smear, paint, or put posters/pictures on walls of your house after it has been sprayed.	Household head and members	Washing, smearing, re-plastering, painting, or putting posters/pictures on walls after spraying reduces the effectiveness of the insecticide.
Strategic Intervention 4: Promoting the Prevention of Malaria during Pregnancy		
7. Pregnant women living in high malaria transmission zones should start and regularly attend antenatal care services as soon as she realizes she is pregnant and can feel the baby move so that they receive an LLIN and malaria preventive services.	Pregnant women/husband	Sleeping under an LLIN and taking at least two doses of IPTp during the second and third trimester reduces the risk of getting malaria during pregnancy.

¹ In areas where IRS spraying is recommended according to the National Malaria Policy

Section 2: Designing the Communication Approach

This section of the guide provides a matrix that outlines the target audiences, desired changes, and some of the barriers to communication in each of the four strategic interventions for malaria control. The guide also provides communication objectives that address the barriers to change for the target audiences and concludes each intervention with the EMAs agreed on by the DoMC and its ACSM partners.

2:1 LONG-LASTING INSECTICIDE-TREATED NET USE

Guide for LLIN Use		
Audience segmentation	Primary: (Directly affected)	Head of household
	Secondary: (Directly influencing)	Household members
Primary Audience	Household heads	
Desired change	<ul style="list-style-type: none"> Ensure LLINs are hung up properly Ensure everyone, especially children under 5, sleeps under an LLIN every night 	
Key barriers	General practice for women to be the main recipients of LLINs; the perceived gender role that women should ensure LLIN usage at the household level	
Communication objectives	To motivate household heads (men) to ensure LLIN hanging and use at the household level	
Secondary Audience	Household members	
Desired change	<ul style="list-style-type: none"> Ensure proper care of the LLINs and use at the household level 	
Key barriers	Lack of knowledge on how to care/repair worn out LLINs leads to alternative LLIN uses	
Communication objectives	To provide household members with the skills and knowledge to care for their LLINs (repair and washing)	

EMAs for the promotion of LLIN use:

1. Hang up an LLIN in all sleeping spaces in the household.
2. Sleep under an LLIN every night, especially children under 5
3. Take proper care of LLINs (repair torn LLINs and wash when necessary).



2:2 MALARIA CASE MANAGEMENT

Guide for Malaria Case Management		
Audience segmentation	Primary: (Directly affected)	Individual adult patient, parent/caretaker of a sick child
	Secondary: (Directly influencing)	Parent or caretaker of a sick child
Primary Audience	Individual adult patient, parent/caretaker of a sick child	
Desired change	<ul style="list-style-type: none"> • Avoid self medication and take prompt action toward diagnosis and treatment of malaria • Complete the malaria treatment prescribed 	
Key barriers	The perception that malaria is a common ailment that households live with and can do something about it through self medication, often with over-the-counter drugs. This causes a delay in seeking a correct diagnosis and treatment with ACTs	
Communication objectives	To increase perception that malaria is a deadly illness. To go and seek prompt diagnosis and treatment within 24 hours of the onset of FEVER at the nearest health facility	
Secondary Audience	Parents and caretaker of a sick child, adults	
Desired change	<ul style="list-style-type: none"> • Take or provide transportation support to suspected malaria patients to the nearest health facility so that they can access diagnosis and treatment within 24 hours of the onset of FEVER 	
Key barriers	Perceptions that under-estimate the severity of malaria, over-estimate the efficacy of self-medicating, and lead to a subsequent failure to take prompt action	
Communication objectives	To educate the parents/caretaker/individuals/heads of households on the severity of malaria and the importance of taking suspected malaria cases to the nearest health facility for prompt diagnosis and treatment of FEVER within 24 hours of onset	

EMAs for malaria case management:

1. Take suspected malaria cases within 24 hours of the onset of FEVER to the nearest health facility for prompt testing and treatment. Malaria is a dangerous disease that can lead to death.
2. Treat a confirmed case of malaria with Artemisinin-based combination therapy (ACT). Self treatment may not be effective. Always seek the proper diagnosis from a health facility and follow the instructions of the health worker.
3. Complete the malaria treatment provided according to instructions.



2:3 INDOOR RESIDUAL SPRAYING²

Guide for Indoor Residual House Spraying		
Audience segmentation	Primary: (Directly affected)	Household head
	Secondary: (Directly influencing)	All household members
Primary Audience	Household head	
Desired change	<ul style="list-style-type: none"> Household heads accept IRS application in the house Household members adhere to key actions and instructions that follow the application of IRS in the house 	
Key barriers	Perception that the spray team infringes on household privacy hence refusal by household heads to have their houses sprayed	
Communication objectives	To motivate households to value IRS application and allow and accept spraying in their houses to protect their family against malaria	
Secondary Audience	All household members	
Desired change	<ul style="list-style-type: none"> Adherence to IRS instructions after house is sprayed (do not paint, smear, wash, or paste pictures on the sprayed walls) 	
Key barriers	The desire by household members to redecorate the house after spraying	
Communication objectives	To encourage household members to adhere to IRS instructions after spraying because redecorating inhibits the effectiveness of the insecticide in their home	

EMAs for IRS:

1. Accept and allow your house to be sprayed. Remove all food and cooking utensils before IRS is applied to the interior.
2. Follow the IRS instructions after house spraying (do not wash, smear, paint, or place posters or pictures on walls of your house after spraying).
3. Re-plastering and decorating the walls after IRS application reduces the effectiveness of the insecticide.



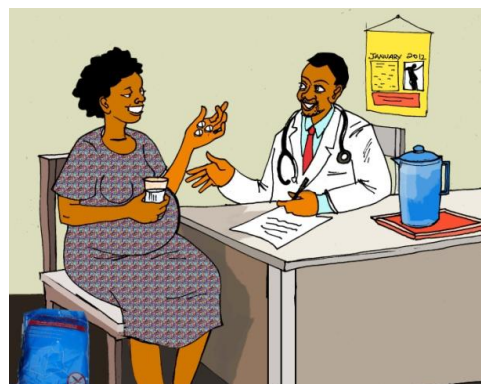
² In areas where IRS spraying is recommended according to the National Malaria Policy

2:4 PREVENTION OF MALARIA DURING PREGNANCY³

Guide for Prevention of Malaria during Pregnancy		
Audience segmentation	Primary: (Directly affected)	Pregnant women
	Secondary: (Directly influencing)	Spouses and mothers-in-law
Primary Audience	Pregnant women	
Desired change	<ul style="list-style-type: none"> Attend antenatal care (ANC) services as soon as she realizes she is pregnant early and regularly Sleep under an LLIN every night and after delivery 	
Key barriers	ANC services delayed until pregnancy is at a stage when it is conspicuous	
Communication objectives	To motivate women to start ANC services early in pregnancy and encourage them to attend ANC clinics regularly for a safer pregnancy	
Secondary Audience	Spouses and mothers-in-law	
Desired change	<ul style="list-style-type: none"> Support the pregnant woman to attend ANC early as soon as she realizes she is pregnant and regularly 	
Key barriers	Spouses (men) and mothers-in-law do not perceive that they can play an active role in reproductive health care services	
Communication objectives	To encourage spouses to take their pregnant wives to ANC services early in pregnancy as soon as he realizes that she is pregnant and regularly	

EMAs to prevent malaria in pregnancy:

1. Start ANC services as soon as she realizes that she is pregnant
2. Attend regularly ANC services to receive malaria preventive medicine and other services
3. Hang up your LLIN and use it every night
4. Go to the nearest health facility for effective diagnosis and treatment of malaria if you suspect malaria during pregnancy.



³ In areas where IPTp is recommended according to the National Malaria Policy

Section 3: Communication Channels and Approaches

Not every approach may be suitable for every district; therefore, this guide helps the user to determine the most suitable method and channel and the materials required. Key questions to ask before choosing the communication method include:

- What is the main source of information about malaria in the community?
- Who or what is the most trusted source of information?
- What is the literacy level of the target audience?
- What are compelling reasons and benefits of the suggested EMAs that help motivate audiences to change?

The matrix below can help identify the suitable communication method for the selected intervention.

Audience: choose your audience	*Method: Which is the best method for reaching your audience?	*Channel: Which channel are you going to use to reach the target audience?	*Materials: What materials will be required to support communication?
Primary audience			
Secondary audience			

Note:

*Methods may include: home visit, demonstration, folk media (drama, songs)

*Channels may include: community radio, interpersonal communication

*Materials may include: posters, brochures, LLIN for demonstration

Annex 1: Myths, Misconceptions, and Key Facts about Malaria

A1: FACTS ABOUT MALARIA IN GENERAL

Is malaria a serious disease?

Most people who have suffered from malaria often take it as a normal condition— some even state “*my malaria is back.*” It is important to note that what normally starts as a simple fever, headache, or general weakness due to malaria parasites in the blood can progress to severe and complicated malaria that is difficult to treat and life threatening.

What are the effects of malaria at the family and community level?

When an individual is affected by malaria, it has an impact on his/her family and community as well. The effects can be summarized as follows:

- a. Individual—becomes sick (weak), restless, unproductive, and worries about the outcome
- b. Family—spends their savings on treatment, transport, and is equally worried about the outcome
- c. Farmers and workers—unable to work, unproductive, leading to lack of income
- d. School children—absent from school, leading to low performance
- e. Community—cost of treatment, hospitalization, and the risk of increased transmission to others in the community
- f. Death—if malaria is not treated early, complications may lead to death

How do I recognize malaria?

When someone has malaria, any (or a mix) of the following signs and symptoms will be experienced:

Fever	Backache	Joint pains
Chills/shivering	General body weakness	Loss of appetite
Headache	Diarrhea (common in children)	Vomiting
Sweating	Refusal to breastfeed	

What is the cause of malaria?

Some communities believe that malaria is caused by eating too many mangoes or being rained on. This is NOT TRUE as malaria is caused by parasites that are in the blood and transmitted by infected mosquitoes. The parasites infect and destroy blood cells. As they destroy the blood cells a patient experiences the signs and symptoms of the disease.

How is malaria transmitted?

Malaria is transmitted from a sick person when mosquitoes bite and suck blood containing parasites; the parasites pass into the blood of a healthy person during the mosquito’s next blood meal. Preventing mosquito bites prevents malaria.

A2: FACTS ABOUT MALARIA CASE MANAGEMENT

Malaria testing is important

When a patient presents to a health facility with FEVER, it is important to confirm if the FEVER is due to malaria. This is because not all cases of FEVER are due to malaria. When all FEVER cases are treated as malaria, anti-malarial drugs can be used unnecessarily. Newly introduced high quality ACT drugs need to be saved only for confirmed malaria cases.

What methods are recommended for malaria testing?

Many people do not know that malaria is caused by parasites present in the blood. The parasites are very small and can only be seen with the help of a microscope. The test involves pricking a patient to take a blood sample and examining it under a microscope.

The other method recommended for malaria confirmation is a rapid diagnostic test. It involves taking a blood sample that is put in a testing kit; results are read after 15 minutes. This simple test can be undertaken by any health worker and the results read together with the patient.

What is the recommended treatment for malaria?

Artemisinin-based combination therapy is the recommended treatment for malaria. ACT comprises two drugs taken at the same time. ACT was introduced to replace the single drugs (like Chloroquine and Sulphadoxine Pyrimethamine) that were found not to completely cure most patients.

In Kenya, the government has made ACTs available free of charge at government and mission health facilities. In private clinics and chemists ACTs are available at a subsidized cost under the brand ACTm, which has a green leaf mark.



A3: FACTS ABOUT LONG-LASTING INSECTICIDE-TREATED NETS

What is an LLIN?

An LLIN is a mosquito net factory-impregnated with an insecticide that will effectively kill mosquitoes that come into contact with it.

Why use LLINs?

As previously discussed, malaria is transmitted through the bite of an infected mosquito. Mosquitoes often bite people when they are asleep, so when people sleep under an LLIN it creates a physical barrier between them and the mosquitoes. It also kills mosquitoes, along with other insects such as bedbugs and lice.



Who should be given priority to use LLINs within the household?

It is advisable for all to sleep under an LLIN, but in the event only a few LLINs are available in the house children under five years of age and pregnant women should be given priority because they are most vulnerable to malaria due to their low immunity.

Is the insecticide safe especially with children?

Yes, the insecticide used for net treatment is not harmful to humans but remains lethal to mosquitoes. Some people may experience slight skin irritation or sneezing, but this will disappear.

Will the net remain effective after being washed?

Yes, it remains effective because the insecticide is impregnated into the net during the manufacturing process, and the insecticide remains even after repeated washing. It is recommended that LLINs are washed with a mild soap like bar soap and hung in the shade to dry. The net can withstand 20 washes and last up to three years.

Can I use an LLIN if I don't have a bed?

Yes, you can. An LLIN can be spread over the top of a sleeping area like a mattress or a mat. The nets also come in different shapes (rectangular or circular) and in different colors.

Are LLINs expensive?

No, nets are not expensive if you compare them to the cost of frequent malaria treatment, transportation, and time taken to seek treatment. A carefully handled LLIN can last between three to five years.

Care of LLINs

Below are instructions on how to care for a net to prolong its life.

After acquiring the net

Remove the LLIN from the package and allow the insecticide fumes to aerate for at least 30 minutes before use.

Washing the LLIN

Whenever the LLIN gets dirty wash it using common bar soap and water. Harsh detergents should NOT be used on LLINs because they will neutralize the insecticide and make it more prone to wear and tear.

After washing, LLINs should be laid to dry in the shade. Do not hang it on a line or expose it to direct sunlight as that may reduce its effectiveness.

LLINs can withstand up to 20 washes over a period of three to five years without losing their effectiveness.

Repair of the LLIN

An LLIN can get torn just like any other cloth. If holes appear in the net, they can be easily repaired as any other fabric would be. This will help the nets work best.

Avoid placing the LLIN close to open fires such as candles.

The net can catch fire just like any other cloth.

Old and damaged LLINs

If an LLIN is torn, burnt, or worn out, it will no longer be effective and therefore must be replaced. Families should seek to acquire a free LLIN from their local health center. Until families can replace their old nets, they should mend or maintain their LLINs as advised above.

A4: FACTS ABOUT PREVENTION OF MALARIA IN PREGNANCY

Pregnant women living in high malaria transmission areas are at the greatest risk of malaria because pregnancy reduces their immunity to the parasite and their placenta retains them such that they may not be in the peripheral. The disease affects the normal development of the unborn child, often leading to poor outcomes for both mother and child.

Why is prevention of malaria during pregnancy important?

Since malaria parasites in the blood of a pregnant woman hide in the placenta, it is difficult to find the parasites by taking a finger blood sample. Pregnant women with parasites in the placenta often present NO signs/symptoms of malaria or may relate symptoms to the pregnancy.

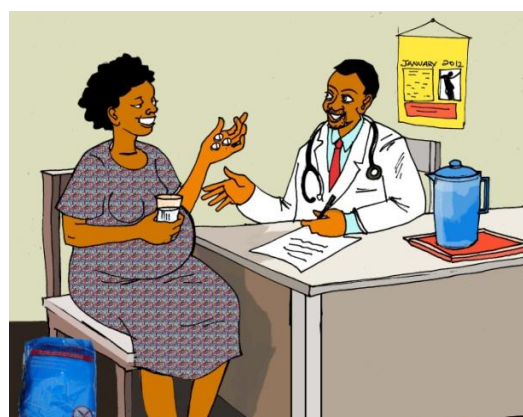
What are the effects of malaria during pregnancy?

Malaria parasites obstruct the passage of food and oxygen to the unborn baby, slowing down its normal growth. This leads to delivery of a baby with **low birth weight**; it also destroys blood cells of the mother causing **anemia**. All this increases the risk of **premature labor**, **spontaneous abortion**, and **stillbirths**.

How do I prevent malaria during pregnancy?

Intermittent Preventive Treatment in pregnancy (IPTp)

- Pregnant women should visit the antenatal clinic early to begin a course of **Sulphadoxine Pyrimethamine (SP)** after first trimester. The SP reduces the malaria parasites in the placenta. In high malaria transmission areas it is assumed that the pregnant woman is infected with malaria and IPTp is administered four weeks apart to maintain the placenta free of the parasites.
- It is recommended that the client takes SP under direct observation therapy (DOT) at the ANC clinic to increase compliance. Clean cups and drinking water should be available at the clinic; the cups should be washed and rinsed between patient uses.
- All women of childbearing age should sleep under LLINs, especially when pregnant.



A5: FACTS ABOUT INDOOR RESIDUAL HOUSE SPRAYING

What is IRS?

IRS is a process of applying an insecticide onto the inside walls of dwelling houses. It is done so that when mosquitoes rest on the sprayed walls they pick up the insecticide resulting in their death. This way mosquitoes will not be able to live long to continue transmitting malaria.

Is the insecticide used for IRS harmful to humans?

Insecticide sprayed on walls for IRS is safe for you, your family and domestic animals. It only kills mosquitoes and other insects like fleas and cockroaches.

However, the insecticide can cause irritation to the eyes and sneezing. To avoid this reaction, the house occupants are advised to remain outside the house for at least two hours after spraying.

Why do we spray the inside walls and not the outside walls?

It has been shown that mosquitoes which spread malaria like resting on the inside walls of the house waiting to feed on human blood when we are asleep and again after feeding.

What should families do to support the IRS teams?

1. Agree to have their house sprayed. It's important to note that for IRS to be effective at least 80 percent of all the households in a given location need to be sprayed.
2. Be available when sprayers come to your household and prepare the house as directed by the spray team as follows:
 - Remove the prepared food, appliances, and utensils from the home and take them outside. Make sure food items and utensils are covered with a clean cloth to avoid contamination.
 - Clean the house properly and dispose of garbage and insects that may have died after the spraying.
 - Provide adequate water to help the spray teams mix the insecticide powder.



What should we do to ensure that IRS is effective?

To ensure that IRS is effective the inside walls should NOT be replastered, washed, or painted after spraying. If this is done, the insecticide loses its effectiveness and the family will be susceptible to mosquito bites and may contract malaria.

Once the house is sprayed, should I use other malaria control interventions?

IRS does not eliminate malaria. Continue using the other malaria control interventions:

- Always sleep under an LLIN
- Seek prompt diagnosis and correct treatment of FEVER
- Take IPTp if you are a pregnant woman living in high transmission area

Something to expect after IRS

While IRS is done to target mosquitoes for malaria control and other non-targeted insects will die as a result, it also excites insects such as fleas to come out of cracks or corners of walls, as the insecticide will irritate them. Most people think that fleas or other insects have reproduced or increased as a direct result of spraying. This is NOT TRUE it is due to the excito-irritation effect of the insecticide.

Annex 2: Sample Work Sheets to Help Choose the Key Communication Activities

Question	Options	Tick appropriately
Which malaria epidemiological zone does the location fall in?	High malaria transmission area? Endemic	
	Highland epidemic prone area?	
	Seasonal malaria transmission area?	
	Low malaria risk area?	
Which malaria control interventions are being implemented?	LLIN distribution	
	Malaria case management	
	Prevention of malaria in pregnancy	
	Indoor residual house spraying	

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Many stakeholders and reviewers provided technical reviews and suggestions to improve this guide—from the one-day stakeholders’ workshop to various ACSM technical working group meetings to sharing the Ethiopian experience of the essential malaria actions development process. With all the inputs the guide was finalized thanks to these contributors:

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“I am part of the committee of experts to validate this document.”
Quote from an anonymous participant in Rachuonyo District

