'PARTNERSHIPS FOR CHANGE' & COMMUNICATION

Guidelines for Malaria control

Division of Control of Tropical Diseases
World Health Organization

Developed in collaboration with
Malaria Consortium U.K.

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Table of Contents

Preface

Malaria is not a new problem for human beings. At the height of malaria eradication efforts it was believed that malaria and the mosquito could be controlled, liberating millions from illness and death. But the mosquito has escaped our grasp.. and for many reasons, the control of malaria has remained difficult. Today malaria is making a serious comeback.

Recent efforts in other areas of public health indicate that health promotion, communication and community action can play an important role.

We must use the knowledge and experience gained from other public health programmes to foster a greater understanding of how collective action can help to control malaria. It is worthwhile to remember one particular lesson from the past - that simple reliance on medical or scientific solutions is not enough - the joining of forces between professionals AND communities is necessary to control significant public health problems such as malaria. These guidelines have been developed with the intention of encouraging this dialogue, to promote common understanding and collective decision-making to sustain community action.

We would greatly welcome your comments and suggestions for improvement - a constructive dialogue can benefit us all by strengthening our efforts in the control of malaria.

Introduction

Global Strategy and Local Action

A global strategy for malaria control has been developed and published. How relevant is this global strategy to your area? This manual aims to help you to adapt and adopt the global strategy, especially those aspects that deal with interactions, actions, responsibilities and decision-making by the communities you serve.

Clearly, these Guidelines are published for international use, and therefore they cannot answer all questions for every situation. With this in mind the main aim is to assist in the process of finding appropriate answers to your situation. The purpose is not to prescribe simple solutions for the complex causes and conditions that lead to the problem of malaria in different parts of the world.

The relevance of the strategy you develop will depend on the relevance of your information and your clear understanding of the problem - not just from a medical perspective but also from the perspective of the community and people you aim to assist.

Who are these Guidelines for?

These Guidelines are for the regional, provincial or district level manager of the malaria programme. This will vary in different countries: you could be the Malaria Officer, Communicable Disease Officer, Epidemiology Officer or Provincial or District Health or Medical Officer. They are also intended for Planners and Trainers who assist and supervise district and/or community level programmes and personnel. The size of a country, province or district varies; therefore, we hope these Guidelines will be useful for officers at different levels depending on the size of your country and the way it is organised administratively.

The GUIDELINES

The Guidelines should help you to define the malaria situation in your area. Once you are able to define your situation you will be able to develop strategies for health promotion and communication leading to community action that are right for your area, appropriate for the resources you have available and relevant to the needs and perceptions of the communities you serve.

In addition to understanding malaria, two factors are crucial to developing appropriate strategies for health promotion and communication for malaria control:

- Who makes the decisions ?
- Who has adequate information to make appropriate decisions ?

Who makes the decisions ? 'PARTNERSHIPS FOR CHANGE'

'Partnerships for Change' means implementing a process for collaborative decision-making between all those involved and affected. The emphasis is on partnerships - between families, between households, between communities and with service providers - and the process of joint decision-making in the development of an effective and appropriate health promotion strategy.

Who has adequate information to make appropriate decisions ? 'COMMUNICATION'

The purpose of a communication strategy is to provide adequate, accurate and timely information to those who have to make decisions. For a public health programme to be effective

every level has to make decisions - the individual, family, household, community, district, province or region, and country. To maintain and sustain public health initiatives greater recognition needs to be given to the role of the family, household and community. Collective understanding of the problem and decision-making about how to address it is necessary if action is to become part of community life and to be sustained.

The Guidelines are arranged in three sections:

Section 1: 'Partnerships for Change'

This section outlines the steps in implementing the process with emphasis on joint decison-making and sharing of information to sustain collective action with the community, household or family.

Section 2 : Understanding Malaria

There are two aspects to understanding malaria: the technical aspects of malaria and the experience of the community related to the malaria problem. This section also helps you to adapt the global or national strategy to develop a "A Profile" which defines the problem in YOUR own area.

Section 3: Developing Messages

This section includes basic guidelines for developing messages about malaria and provides examples of illustrations that can be adapted and used by your programme . In addition, it provides an introduction to social marketing, a strategy that may be useful.

To make these Guidelines of practical use the format emphasises practical steps through the use of worksheets and exercises. These can be used to develop a profile of the malaria situation in your area or to develop local strategies for partnerships, communication or community action.

The use of these Guidelines is only the beginning of the process. We hope it will lead to a sustainable relationship between communities and health providers to control malaria in YOUR area.

To begin with go out and meet people....find out what they think and know.

SECTION 1

'Partnerships for Change'

'Partnership for Change' means working together with the community to achieve improvements in health. Working together effectively requires understanding not only the medical and scientific situation but also the needs and perceptions of the community and the means for making decisions together.

At the same time the community needs to understand the work of the health services and your ideas on what needs to be done. Decisions about what needs to be done and how it will be done in collaboration with the community depend on the relationship you establish between the health services and the people you serve. This section of the Guidelines aims to help you to initiate and continue dialogue with the community through its representatives and leaders.

These Guidelines are written for malaria programmes and therefore the focus is on improving the malaria situation in the community. To do this you need a clear understanding of malaria in your area.

Section 2 will help you to develop an understanding of malaria in your area. The Guidelines will help you to identify what you already know and gaps in your information. Unless you have a clear idea of the problem of malaria in your area, you will have difficulty in working with the community towards appropriate decisions to tackle the problem. At the same time, with a clear understanding of the problem the community can guide you on what is appropriate and possible.

Partnerships for Making Decisions?

The aim of 'Partnerships for Change' is to implement a process that provides the means for collaborative decision-making between all those involved and affected. The emphasis is on partnerships between families, between households, between communities as well as between service providers. The process presented in these Guidelines highlights the critical stages of joint decision-making in the development of an effective and appropriate strategy.

Partnerships between the different programmes of the health services are also very important for the effective implementation and sustainability of malaria control strategies. At the same time malaria control programmes can also develop partnerships with other public sector programmes and the private sector where appropriate. Inter-sectoral collaboration is not included in detail in

these Guidelines as this has been covered in many other publications and manuals.

'Sharing Information': The Communication Process

In communication programmes that rely only on 'information giving' to achieve change, without adequate emphasis on 'who makes decisions', the following characteristics tend to prevail:

a. The emphasis in communication is on 'giving' information
b. Health providers/planners assume they have all the information that the community wants and needs
c. Health providers/planners believe that they understand information better so they should help the community by making its decisions
d. The community is seen as the 'target' not necessarily the partner in the programme
e. Planners collect and analyse all information and recommend solutions
f. Planners focus more on understanding the community so that they can influence community behaviour rather than on helping the community to understand its problems and the health provision system

The following table summarizes the comparisons between 'Partnerships for Change' and 'Information Giving' especially when they are used in isolation from each other.

'Partnerships for Change'	'Information Giving'
Sharing information to develop partnerships	Giving the correct information to influence behaviour
Neither the community nor provider has all the information	The provider thinks s/he has all the information
Both the provider/planner and community need to strengthen each others' understanding and make decisions through partnerships	The planner/provider believes s/he understands the information better so should make the decisions
The community is the partner	The community is the target
The process is jointly controlled, analysis of information and identifying solutions are carried out jointly	The process is controlled by the planners/providers and solutions are identified by them
Efforts are made to improve two-way understanding between planner/provider and community	Efforts are primarily made to research the community by the planner leading to one-way understanding
Data are shared with the community at each stage	Data are usually kept at a central place

'Partnerships for Change'	'Information Giving'
The community is involved in each stage: deciding what information should be collected, what solutions are appropriate, and in implementation, monitoring and evaluation	The community mostly 'complies' and participates during the implementation stage with little involvement in choosing priorities, monitoring or evaluation
Information gathering and analysis are simple and as reliable as possible	Information gathering and analysis are complex with emphasis on statistical 'correctness'
The process is appropriate for local area strategies	The process can operate for large areas and populations
Has greater possibility of sustainability of 'maintained' behaviour change	Has greater effectiveness for 'one-time' behaviour change
Greater emphasis on interpersonal methods and therefore slow diffusion and considered expensive; may need some 'mass' methods to spread information	Greater emphasis on 'mass' methods and faster diffusion with recognition of interpersonal methods to achieve behaviour change
Focus on 'understanding' and mutual exchange of ideas	Focus on 'messages' and their retention

The two approaches of 'Partnerships for Change' and 'Information Giving' seem different from each other but, for effective malaria control, the two processes should overlap significantly and complement each other. The positive aspects of both processes can be used to advantage to develop broader knowledge of malaria control and sustained community participation and action.

'Information giving' is a one-way process but the aims of 'Communication' should be:

- To develop common understanding to improve the exchange of ideas
- To find the means for extending the reach of information

These basic aspects of communication have been made very complex by many communication programmes. This is partly caused by the assumption that information needs to be 'given' to ignorant community members instead of an emphasis on 'exchange' of ideas, values or beliefs. When the emphasis shifts from 'giving' to 'exchange' then the methods used become those that can be used equally by both sides.

To develop common understanding you can use the following methods but with greater involvement of the community:

- joint surveys
- focus group discussions
- participatory research involving the community and others

To extend the reach of information you can use:

- interpersonal communication
- communication methods for groups
- mass media
- visuals
- stories
- extension activities or others

Joint decision-making is the key to the success of this process. Good decisions require good information. Communication plays an ongoing role at each stage of the 'Partnerships for Change' process as its success depends on shared information and common understanding.

Focus group discussions help to find out people's perceptions and views

To understand the interdependence between 'Communication' and 'Partnerships for Change' they can be viewed in the following way:

Communication	increases the amount and improves the quality of information available, and narrows the gap between the understanding of the provider/ planner and the community
'Partnerships for Change'	helps to convert the understanding between the community and the planner/provider into .. A C T I O N

Information - Whose Information ?

In all situations the attitudes of those controlling information and resources are critical to encouraging collaboration and partnership with the community. It is important to remember that:

a. The more complicated the information collection and analysis process the further the decision-making tends to be from the community
b. No matter how accurate the information it will be interpreted differently by different people

Based on a True Story•

It was early evening in the village of Zong Nosinfa*. The village elders and chief had gathered with many people under the baobab tree. The health workers and students were preparing their presentation on what their survey, assisted by the traditional birth attendant, had found. They had promised the community leaders that they would present what they had found in the village to them before they left that day. The village chief and elders said they were very interested to hear their findings because no one had done this before.

The nurses had collated the data and were very pleased with what they had found. They saw the figures and realised that community nurses were doing a very good job in the village. The senior nurse presented the summary with great enthusiasm and she said that her team was very pleased that 7 out of 10 pregnant women in the community (all information was presented out of 10 instead of percentages) were taking their malaria medicine regularly. She congratulated the community.

But then there was a hushed silence because one of the oldest elders wanted to say something. He turned to the nurse and said," Who are the three women who were not taking their medicine?" The nurses went quiet and the discussion that followed planned how with the community they could achieve 10 out of 10 coverage among pregnant women.

• Based on field experience, Mehra, Understanding Communities-Ghana, unpublished report, 1993
* Name of village has been changed

There is a great difference between 30% as a statistic and 'THREE WOMEN IN OUR COMMUNITY'. This experience showed us that information close to the level of action will lead to better and more practical use. It also shows that interpretation of data should not only be done by planners and health workers but also involve those who have to participate, act or make changes.

The design of data collection instruments such as questionnaires, the methods of analysis and presentation of results will influence who makes the decisions and on whose behalf. The process determines whether true dialogue occurs or whether those who have information dictate to those who do not.

Information for Decision Making

There is often a tendency for those who have or collect information not to share it with others. This thinking can slow the process of sharing and putting the data to its proper use. Community data are most useful if they lead to appropriate actions at the community level.

Community data can be converted into action only if health workers accept that the community could use some of the information that health workers have. With adequate and appropriate information

Good decisions are joint decisions

communities are capable of and willing to make decisions and take actions. Health workers often do not adequately understand what the community knows, is doing or and can do; and information that is shared is not relevant to their circumstances. The purpose of dialogue is to build bridges between the health workers' modern knowledge and the community's traditional knowledge and experience.

Who is more knowledgeable?

Based on a True Story

During initial design and testing of survey instruments in communities, health workers would gather together at the end of the day to share experiences. A common comment heard would be, "people are so ignorant about health matters."

When the group of health workers were asked "Who has the information that people in the community need to deal with the malaria problem?" A long silence would follow and then they would admit that they had the information and would recognise that it was health workers who had all the information that people in the community need.

In the same way the community may think health workers do not do their job properly. This is because people feel that health workers do not pay attention to what is important to them. The 'Partnerships for Change' process outlined here aims to provide guidelines for overcoming the lack of understanding and collaboration between health workers and communities, and to establish a dialogue to bring together these two sources of information to improve the situation.

The 'Individual' and the Community

Many communication programmes place emphasis on the behaviour of the individual. Although families, households and communities are all made up of individuals it is important to recognise that life styles and cultures are not behaviours of individuals but behaviours of groups. Family, household and community behaviour has a greater probability of being sustained than individual behaviour. The role of family, household and community needs to be fully recognised if communication is to maintain health promoting behaviours.

Individual behaviour change has been the basis of many communication programmes which aim to improve health. Successful behaviour-oriented programmes have recognised that individuals in traditional communities live in a social context. In

public health programmes, such as malaria control, families, households and communities have to be seen as partners.

How we can we improve the dialogue?

1. Design instruments, such as survey questionnaires, that are short and simple
2. Include questions that the community wants information about
3. Make a commitment that no data leaves the community without sharing the results with community members and leaders
4. Make sure some analysis can be done quickly and simply in the community
5. Make presentations using simple statistics
6. Do not make judgements on results but discuss them with the community before reaching any conclusions
7. Use this as an opportunity to discuss what should be done in the community

Learning the 'Change' Process

The easiest way to understand the 'Change' process is to try and recall from experience what you would go through if YOU wanted to change your behaviour or you wanted your family to change their behaviour.

Exercise 1.1

Try and think of an example from your own life when you had to change your behaviour. Think of what made you change. Who influenced you most? Who supported you? Think of how long it took you to change finally? Try and remember and write down the stages that you went through to change.

Changing the way you do things is not easy. Therefore, it is important to assess the process that you go through yourself so you can better understand what others have to go through to change. Understanding yourself also helps you understand others. The next stage is to understand how change can be brought about within a social context such as the family.

Exercise 1.2

Now try and think of the process you would use or the steps you would take to make your family (e.g. including your spouse, and two children) all sleep under a mosquito net every night. Think of what you would do within the family; what would be the differences in convincing different family members? Draw the process or list the steps you could take.

Exercise 1.3

Try and describe the process you would have to go through so that all the members of the household use mosquito nets everyday and maintain that level of use. Describe the stages you would go through and how you will work with different members and with the household as a whole. List the steps you would have to take.

Now imagine that your household consists of your parents who are about 65 years old; your sister, her husband and their two young children - an 8 year old boy and 11 year old girl; your spouse, your 16 year old daughter and 19 year old son.

Most of us find that promoting behaviour change for someone else, another family or group seems much easier than doing it for ourselves. But unless we are able to understand what it means to change behaviour in a social or cultural environment we cannot develop a programme that builds on the social and cultural influences that affect the change process .

Exercise 1.4

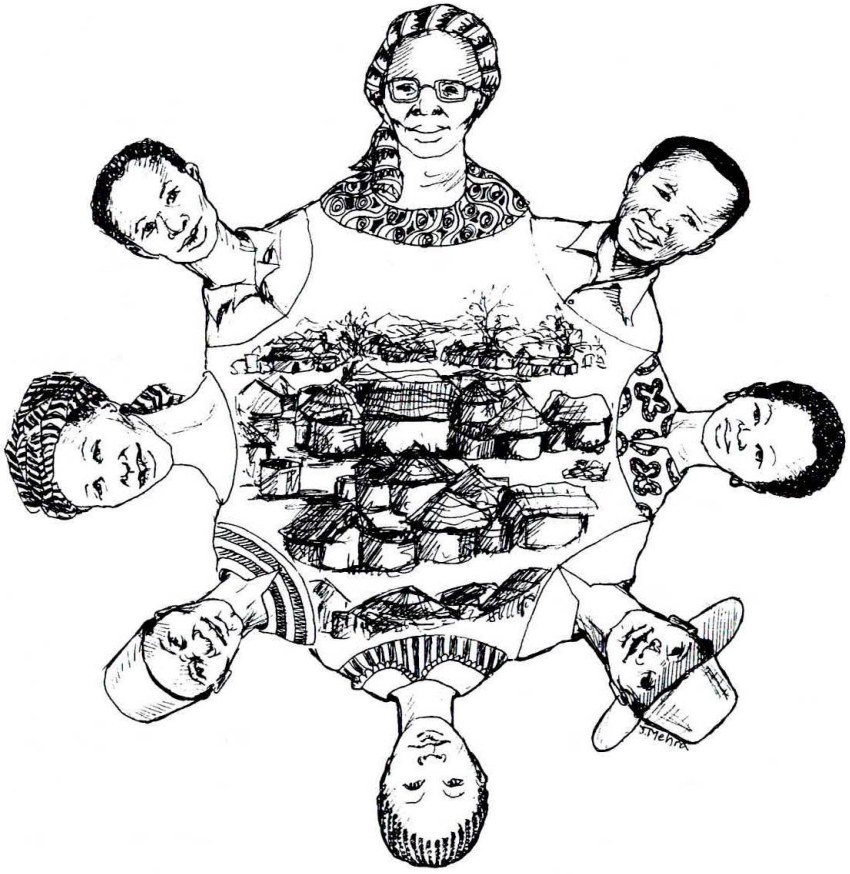
Now try and list the main steps that you would take to influence change amongst different groups in the community. For example, you would like to suggest that they protect themselves from mosquito bites after sunset. Who are the different groups? What reasons would they have for not wanting to change? What would you have to do differently with each group? What steps would you take?

Some factors usually emerge when change affects more than the individual. One of the key factors is the need to inform and involve everyone who needs to be part of the change process. Using the exercises on the 'change' process the following stages usually emerge (not necessarily in the same order):

- The need of everyone for information to understand the problem
- The desire to share information and discuss with others with the aim of reaching some agreement on what can be done
- A search for an answer to the questions why and how something needs to be done
- Adequate and appropriate information for everyone to make a decision about what they would do, and why and how
- A decision together on what should be done first
- A means for finding out if the joint efforts are providing encouraging results
- A means for finding out if the family was able to do what it set out to do and, if not, what it could do to improve the situation

What stages have you identified that are similar or different from those given above? Develop a process for change that you might use with your communities and groups within them.

These exercises introduce the 'change' process and this is further developed in these Guidelines as the 'Partnerships for Change' process for working with communities.



'Partnerships for Change' Process

Collaboration and voluntary cooperation with the community require the development of lasting relationships based on trust and mutual respect - or partnerships. Narrowing the gap between community perspectives and priorities and those of the health services is of prime importance in public health programmes that aim for changes at the community, household, family or individual level.

The ten steps shown in the table on the next page form the basis for establishing and maintaining partnerships.

'Partnerships for Change' Process

STEPS	PARTNERSHIPS
Step 1: Identifying Information Needs	Finding out What the community knows and does not know; What the Health Services know and do not know
Step 2: Gathering Information	Involving the Community in Information Gathering
Step 3: Analysing Information	Analysing together and Presenting Results to the Community
Step 4: Identifying Solutions	Identifying Solutions Together
Step 5: Choosing Priorities	Identifying Priorities Together
Step 6: Developing Goals and Objectives	Developing Joint Goals and Objectives
Step 7: Assessing Resources	Identifying Resources of the Community and Health Services
Step 8: Taking Actions	Taking Actions Together
Step 9: Monitoring and Evaluation	Evaluating Activities Together
Step 10: Developing an Ongoing Commitment	Activities to be Continued; Sustainability

Step 1: Identifying Information Needs

Partnerships: What do both the community and the health services know and need to know?

Existing information and experiences are the starting point for the process. Section 2 should help you to summarize the information from the health services' point of view; you should be able to develop an "epidemiological picture" from completing the "Profile of Malaria in Your Area." Even with this profile an information gap remains between the health services and the communities.

Epidemiological and other scientific data are important but community perspectives, understanding and values are just as relevant, especially when it is the community that has to make the changes. More significantly, there is a wealth of information and experience about malaria in the community. This information may be based on knowledge handed down through generations.

Both the health services and the community have information needs. Jointly identifying the information needs of the community and the health services also provides the means for uncovering the common ground that exists between the two. This is the starting point for working together to narrow the information gap. Make plans together on what information needs to be collected and how it will be collected. The information needs of different groups in

the community may vary as do those of health workers. You will need to identify which group requires what information. You also need to find out what information already exists.

Gather Existing Information

Find out what is already known in your area about the extent of the problem:

- Extent of malaria illness and impact - who is affected, how many, how seriously, how many deaths. Are some groups or areas more affected?
- Causes of malaria illness and death
- High risk groups or areas:
  - Age groups
  - Ecological areas
  - Economic/occupation groups, work habits
  - Social factors, living conditions - types of dwellings, sleeping habits
  - Migration
- Breeding sites of mosquitoes
- Use and quality of existing services:
  - Availability of drugs and mosquito nets (and insecticides to re-treat them) through private and public channels
  - Distance to health services

In summary, the existing information helps you to define:

The extent of the problem	How common it is, who is most affected, where in the area the problem is most severe
Why it happens	Medical causes and non-medical factors, including beliefs, practices, knowledge and perceptions in the community
What can be done	The capacity and quality of existing health services, and what people can do

Partnerships are the means for sustainability

Step 2: Gathering Information

Partnerships: Involving the Community in Information Gathering

You can use both formal and informal methods for collecting information. Involving different groups in the community in collecting information begins the process of communication. Find out what the community calls malaria and what it knows about the causes and stages of the illness. Share with the community what you know and what information is needed.

You may also use simple surveys or discussion groups to gather information together on the malaria situation such as:

a. The extent of malaria and its impact: who is affected most, how many get sick, how seriously, how many deaths. Are some groups or areas affected more?
b. The causes of malaria illness, fever, shivering, fits, and death. Beliefs about causes and seasonality.
c. The use of health services or other sources for treatment. What kind of treatment do they provide? What works, when and perceptions of effectiveness.
d. Is the situation getting better or worse compared to previous years?
e. Why do they think the malaria situation is getting better or worse?

It is important for the community and health workers to share an understanding of these areas of information to take appropriate actions. Simplifying the process of gathering information provides the community with an opportunity to understand its own problems better.

For example the community can play an important role in identifying mosquito breeding sites or groups in the community who are most affected by malaria. Communities are then not surprised when health workers suggest certain interventions or focus resources on particular households.

Learning about the Community

For an effective communication programme you need to identify whom you are trying to reach and what their needs may be. In addition, you need to know what the programme is trying to achieve: who or what behaviour or patterns of living may be affected.

Types of information you need

Good information helps the community and you to make good decisions. The clearer your understanding of the problem - the more focused will be the communication programme.

The types of data you need fall into five categories:

Knowledge & perceptions	what community groups know and think, what they do not know, and what they want to know
Attitudes	what influences what they do, what is important to them
Practices	what they do about key issues related to malaria
Obstacles	outside influences that prevent them from doing something they want to do
Sources of information	and how much trust they have in these sources

Types of Data	Examples
What does the group know and believe?	What causes malaria?
What don't they know?	Can malaria cause high fever and fits?
What do they want to know?	Where can they get malaria medicines or how can they protect their children?
What are their attitudes and perceptions?	What do they think of sleeping under mosquito nets? To whom do they prefer to go for treatment?
What are their practices?	What do they use to prevent or care for malaria? What activities increase their risk of malaria?
Why do they do what they do..what values do they have, what constraints do they face, what motivates them to act?	Why are they not able to give/take medicines; why can women not sleep under mosquito nets?
What are their sources of information and how much trust do they have in various sources?	Do they listen more to older or younger groups? Do they believe health workers or traditional healers more? Do they travel to see cinema/theatre?

Although it is interesting to research all community groups and everything about them, collecting data costs money. Therefore it is important that you focus your efforts on a few groups and a few topics.

Who

- Be clear about whom you are trying to reach and whom you want to take action
- You may want women and children to sleep under mosquito nets but that may not happen unless men allow them to do so, or mothers-in-law agree
- Convincing women to take preventive measures may not be possible unless men or decision-makers in the family or household allow them to buy necessary medicines or provide resources for transport to health centres

Research Methods

Using research methods effectively requires careful preparations. These preparations include developing questionnaires or checklists, training interviewers, making logistical arrangements, and selecting participants.

There are four methods usually used in community research:

1. In depth interviews
2. Focus group discussions
3. Direct observation
4. Knowledge, Attitude and Practices (KAP) surveys

The best methods for conducting research for a communication programme are focus group discussions or in-depth interviews. These methods are useful for gathering information on what people think and do, and why, which is necessary for designing appropriate and effective messages. Other publications can tell you in more detail how to use these research methods.

Advantages and disadvantages of research methods

METHOD	ADVANTAGES	DISADVANTAGES
Focus group discussions	• Allows knowledge, beliefs, attitudes and practices to be explored freely • Flexible - allows topics of particular concern to participants to be raised • Can provide a sense of how people in the community interact	• Lengthy preparations needed to : - design and pretest checklists or questionnaires for each group - train facilitators carefully • Participants need to be screened and chosen carefully • Can be difficult logistically to arrange group meetings • Analysis of results can be difficult and time-consuming (although quicker than in-depth interviews)

METHOD	ADVANTAGES	DISADVANTAGES
In-depth interviews	• Usually more topics can be covered than in group discussions • Encourages honest, open, detailed answers • Provides some information on what individuals say they do	• Lengthy preparation needed to : - design and pretest questionnaires for each community group - train interviewers • Participants must be chosen carefully • Analysing results can be difficult and time-consuming
Direct Observation	• Provides information on what community groups actually do, rather than what they say they do • Useful for supplementing data gathered through interviews or focus group discussion • Especially useful if messages/materials are being prepared for use in health facilities	• Having an observer present often leads people to change their behaviour • Very time consuming, especially if need to observe rare events

METHOD	ADVANTAGES	DISADVANTAGES
KAP surveys	• Provide quantitative information on: - how common a belief or practice is - whether beliefs, attitudes or practices have changed • Provide scientifically valid (representative) data, if done properly, against which impact can also be measured	• Preparations are time-consuming, expensive and difficult; technical skills are needed • Large numbers of trained interviewers are needed • Computers and skilled technicians are usually required to process the data and analyse the results • Information provided is not qualitative (i.e. does not reveal *why* people believe or do something)

Step 3: Analysing Information

Partnerships: **Analysing Information Together and Presenting Results to the Community**

Analysis provides a fuller understanding of the problem. It gives the community an opportunity to compare its own understanding of the problem with new information that has been gathered. It also gives the community the information it needs to make decisions based on a fuller understanding of the problem. To achieve this

health workers have to be able to analyse information in a way that the community can use to identify solutions.

Analysis of Results

Research results should be analysed and tabulated according to key topics or problems that will be addressed in the communication programme. For each topic tabulate what each group knows and does. Here is an adapted example* from a communication programme focusing on antenatal care to encourage pregnant women to take anti-malarial drugs during pregnancy. You can adapt the table to the research findings on malaria from your area.

Topic	Community Group	Findings
Antenatal care attendance to provide anti-malarials to pregnant women	Rural women with 0-3 years of schooling who have had at least one pregnancy	• Women believe it is bad luck to go for antenatal care before the 5th or 6th month of pregnancy • Women go for antenatal care primarily to get antenatal cards that will allow them to give birth at the health facility; they don't believe antenatal care helps them directly • Women think antenatal care is "better" if they receive some medication or injection • Women do not like going for antenatal care because they have to wait a long time and because they think the nurses and midwives are too impatient
	Nurses and midwives at rural health facilities	• Health staff are frustrated because they believe women come too late and then won't follow the advice they are given • The idea of risk screening is poorly understood and therefore rarely used

* This section is based on, *"Getting the Message Out: Designing an Information Campaign on Women's Health,"* by Ann Starrs, Family Care International Inc.; and has been adapted for malaria control programmes

Topic	Community Group	Findings
	Older women (e.g. mothers and mothers-in-laws of women of reproductive age	• The benefits of attending antenatal clinic are not recognised • The advantages of taking anti-malarials are not generally known and some do not believe medicine can help the health of the woman or baby
	Husbands of rural women of reproductive age	• The idea that pregnant women are at risk from malaria or its effects is not familiar to most men • While men may be somewhat concerned about the health risks of pregnancy, they are more concerned about the costs of sending women regularly for antenatal care
Also Information Channels	Rural women of reproductive age with 3-6 years of education	• Women are "too busy" to listen to the radio, and think that what they hear does not apply to their lives • Advice from traditional birth attendants and healers is usually listened to, because they are sympathetic and listen to women's problems

Step 4: Identifying Solutions

Partnerships: Identifying Solutions Together

Based on shared collection and analysis of information, health workers and the community can work together to identify solutions that may be necessary to improve the situation. Even though all the solutions at this stage cannot be implemented it is useful to share ideas on the causes and solutions to community problems from different perspectives.

You need to involve community groups important for the malaria control programme- parents with young children, pregnant women or working adults and other groups whose knowledge, beliefs and attitudes may have a strong influence. These 'influencing' groups could be community leaders, heads of households, religious leaders or local politicians and government officials. Their support may be critical to the success of your efforts.

Identify which groups are expected to perform what behaviours for the success of the malaria control programme.

The research findings are useful because they:

- Reveal the main problems and gaps in information that the communication programme should aim to improve.

- Provide a record of people's response that your organisation or other groups can use in the future. Health organisations may be able to use the results to help plan training activities; community leaders might use them to request more funds for health programmes; research institutes might use them for background information when planning a new research project.

- Help you to monitor and evaluate the communication programme by providing an indication of what people's knowledge, attitudes and practices were before and after the communication programme.

Only together can we decide how to control malaria

Step 5: Choosing Priorities

Partnerships: Identifying Priorities Together

Every action required by the community or by the health services may not be possible to begin with. Therefore, together with the community, health and other development workers, you should identify what are the most important things to do first. Develop criteria with the community which you can apply to all the solutions identified in Step 4 above. The use of the same criteria will help you and the community to select the most important solutions for the malaria problem in your area.

Step 6: Identify What You can Achieve Together Developing Goals and Objectives

Partnerships: Developing Joint Goals and Objectives

Jointly identified priorities become the basis for deciding what can be done. These should be mutually agreed goals and objectives that are realistic, appropriate and achievable. A simple way to develop objectives is to identify what change you hope to see by the end of your programme, and by whom. Those who are to be involved in implementing the solutions need to be involved in the planning.

Objectives for the Communication programme

The communication programme objectives provide the overall framework. They state:

What you plan to accomplish
Whom you want to reach
How much change you expect
How long it will take

Objectives should be measurable. If you do not have data on what the situation is now, it may be difficult to say what you want to achieve. For example you may want to increase knowledge among parents of the importance of protecting young children from mosquitoes, but if you do not know what their knowledge currently is you cannot say by how much you can increase it.

One difficulty for a communication programme in setting objectives is that a change in people's behaviour often cannot be achieved as a result of information alone. For example, more pregnant women may need to take anti-malarials to protect themselves; but if the right medicines are not available, the communication programme will not be able to achieve this objective. This is why the step "Gather Existing Information" described earlier is important.

It will provide essential information about what services or supplies are available or how good they are.

Sample Objectives for Communication Programme

OBJECTIVES:

Within six months of the start of the programme, to:

- Increase knowledge among women, their husbands, and their mothers-in-law about the importance of anti-malarials during the pregnancy
- Ensure at least 75% of pregnant women take anti-malarials regularly during pregnancy (note: assumes anti-malarials are available)

or

- Ensure at least 75% of pregnant women report to health workers for treatment if they have fever

Adapt the goal and objectives above for a communication programme for malaria control in your area.

Your Objective(s)

Step 7: Assessing Resources

Partnerships: Identifying Community and Health Services Resources

To achieve objectives successfully both the community and health services have to assess what resources would be needed and compare these with what is available. List all the activities you intend to carry out and the resources needed for each activity. Now identify where these resources would come from. Often only resources that are to be bought are listed; make sure you include all contributions, whether they are in cash or kind, to get a fuller picture of how the community, other programmes and the health services are contributing to the overall achievement of joint goals and objectives.

An effective programme can require many resources. It may help to find out what other programmes cost. Estimate your costs by talking to others who may have conducted similar communication programmes. Then develop a rough budget according to each activity you plan to conduct. At this stage you are estimating the costs; as you plan your activities better you will also be able to prepare a more accurate budget. Now you need to know if support will be available to conduct your communication programme and what resources may be available. You may need to provide a proposal to request funds.

Step 8: Taking Action

Partnerships: Implementing Activities Together

Activities and changes may not necessarily occur as planned. Based on the assessment of resources in Step 7 you identify the activities which are possible and practical. The collaboration between the community, the health services and other development sectors requires that each of the contributors is involved in finding out how much progress is being made towards the objectives and what activities need to be modified. Again collaboration in identifying the measures to be used and the process of monitoring activities can assist the community to find ways to improve what is being done.

Step 9: Monitoring & Evaluation : How Good were the Actions?

Partnerships: Evaluating Activities Together

To learn from your and communities' experience and improve the programmes you should invest in monitoring and evaluation from the beginning of your plans. Joint assessment of the activities and actions is critical to maintain the programme. It is important in deciding what should be done next and how. Only on the basis of understanding of success or failure will the community be willing to make an ongoing commitment to improving the situation.

Monitoring

Monitoring begins with your first activity and continues throughout. It is ongoing and helps you to find out how things are progressing in terms of:

Overall process: whether the workplan and budget are appropriate; if coordination among other organisations and the community is working well; or if all workers are fulfilling their roles and responsibilities

The process and outcome at each stage: whether the activities went according to the workplans; what problems were encountered; whether new information was uncovered during the research, message development, pretesting, and distribution stages

Monitoring activities can include field visits, staff reviews, and meetings with representatives of the community. Where necessary, changes should be made in the workplan, budget, or time line of activities.

Evaluation

A formal evaluation looks at the strengths and weaknesses of different activities in a communication programme and at what happened as a result. Evaluation examines:

Your methods and management of resources
The success of different stages of the programme
The impact of the communication programme

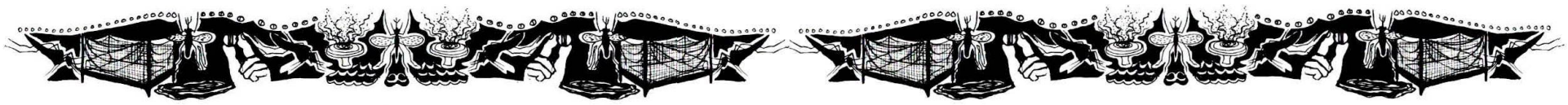
Evaluation methods include: a review of written records, interviews with the staff, in-depth interviews with members of community groups, group discussion, observation of community groups, and surveys to see whether people's knowledge, attitudes and behaviour have changed because of the programme.

Step 10: Developing an Ongoing Commitment

Partnerships: Activities to be Continued...Sustainability

Sharing information and expecting changes is not enough for effective malaria control programmes. If the actions and behaviours are not sustained then the problem will not only return but could get worse. This has been the experience in the past. Therefore, the main purpose of this 'Partnerships for Change' process should be to ensure that the community and its members have not only decided what actions are necessary for controlling malaria in their area but also chosen the actions they will continue.

This section has covered the 'Partnerships for Change' process. Joint decision making is the key to the success of this process. As stated earlier, good decisions require good information. Communication plays an ongoing role at each stage of the 'Partnerships for Change' process as its success depends on shared information and common understanding.



Resource 1:

Checklist for 'Partnerships for Change'

Step 1 Identifying Information Needs

a. Existing Information

Find out what is known in your area about the extent of the problem, who is most affected and at greatest risk:

Information	*Findings*
Extent of malaria problem and impact: • *How many cases?* • *How serious?* • *How many deaths?*	
• *High risk groups or areas:* - *Age groups* - *Ecological areas* - *Economic/occupation groups, work habits, migration* - *Social factors, living conditions, construction,* - *Sleeping habits*	
Why it happens? • *Causes of malaria illness and death* - *Medical causes* - *Non-medical causes:* *Beliefs* *Practices* *What can be done?* • *Use and quality of existing services:* - *Availability of drugs through private and public channels*	

Partnership: *Involved community in identifying information needs?*	*YES* ☐

b. Experience of Other Programmes

Find out what methods, messages or materials are available and have been used, and how successfully.
What are the problems?
Discuss with other organisations conducting these programmes.

	Experiences of previous programmes
What factors contributed to success or failure?	
What problems did they face?	
What lessons can be learnt and how to improve?	

	Experiences of previous programmes
What methods and media were successful?	
What materials were most successful?	
Who were the main organisations and institutions involved?	

Partnership:
Involved community in review of previous programmes? YES ☐

Step 2 Gathering Information

a. Who?

List the community group(s) you want to reach and some of their characteristics:

b. Types of information you need from each group

Types of data needed	*Community Group*	*Research method(s) to be used*
What does the group know and believe?		
What does the group not know?		
What are the group's attitudes and perceptions?		
What are the group's practices?		

Types of data needed continued..	Community Group	Research method(s) to be used
What values do they have? What constraints do they face?		
What motivates the group?		
What are the sources of information the group trusts?		
Others		

Partnership:
Involved community in gathering information and discussed the purpose of information?

YES ☐

Step 3 Analysing Information

For each topic and each community group tabulate what each group knows, does and other details. You can then link this with what may be best means of reaching them.

Topic	Community Group	Findings

Partnership:
Involved community in analysing information and presented results to community members and leaders?

YES ☐

Step 4 Identifying Solutions

Main Research Findings	Possible Solutions

Partnership:
Involved community in identifying solutions together?

YES ☐

Step 5 Choosing Priorities

Possible Solutions	Priorities

Partnership:
Involved community in identifying solutions together?

YES ☐

Step 6 Developing Goals and Objectives

GOAL:

_____

_____

_____

_____

_____

OBJECTIVES:

_____

_____

_____

_____

_____

_____

_____

_____

_____

Partnership:
Developed joint goals and objectives with the community?

YES ☐

Step 7 Assessing Resources

Activities	Resources required	Source Where will resources come from?

Partnership:
Identified community resources and health services resources?

YES ☐

Step 8 Taking Actions

Activities	Who is involved?	When will activities be done?

Partnership:
Involved community in implementation of activities?

YES ☐

Step 9 Monitoring and Evaluation: How Good were the Actions?

a. Monitoring

Activities	Problems encountered? New information Action to be taken?	By when should be completed?	By when actually completed ?

b. Evaluation

Objectives	*By When*	*Level of Achievement*

Partnership:
Involved community in monitoring and evaluation?

YES ☐

Step 10 Developing Commitment

Effective or Successful Activities	*Level of Community Commitment*

Partnership:
Discussed what activities the community is willing to support and sustain?

YES ☐

SECTION 2

Understanding Malaria

In this section we shall build two important areas to provide the content of 'Partnerships for Change': the first is to define the local malaria problem to improve your own understanding; the second is to help the communities to understand malaria and how to protect themselves from it.

2. 1 Defining the Malaria Problem

Global Malaria Situation [1]

Globally, the malaria situation is serious and getting worse. Each year between 300 and 500 million people in the world fall ill with malaria, and 1.5 to 2.7 million die from this disease. Over 80% of these cases and deaths occur in Africa, south of the Sahara, where malaria accounts for about 10% of hospital admissions and 30 % of outpatient consultations.

Young children suffer the most in sub-saharan Africa. It is estimated that 140 to 280 million clinical cases and 1 million deaths occur annually in children less than 5 years old. Pregnant women are also at risk of malaria and its complications, particularly during their first pregnancy, malaria being an important cause of low birth weight and high neonatal mortality. It also causes anaemia in children and in pregnant women and increases their vulnerability to other diseases. Some of the most severe malaria epidemics in recent years have taken place in highland and desert fringe areas of Africa.

Despite continuous efforts to keep malaria under control, the situation in the Americas and Asia (except China) is either the same or worsening. The total number of cases recorded in malaria endemic countries outside Africa is approximately 5 million per year, of which 80% are found in Asia. However, the real number may be five times higher. In these areas, malaria is often occupation-related. While all population groups may be equally affected, as in Africa young children and pregnant women suffer most from the disease.

High mortality and complications due to malaria are to a large degree related to late diagnosis and inadequate or inappropriate treatment. The provision of prompt treatment is being made difficult in many areas by the spread of drug-resistant Plasmodium falciparum. Multi-drug resistant P.falciparum malaria is now common in areas of South-east Asia and the Americas and the problem is compounded by uncontrolled use of anti-malarial drugs.

[1] Extracts from *"A Global Strategy for Malaria Control"*, WHO, 1993

Malaria disproportionately affects those living in conditions of poverty, and is a serious problem in the frontier areas of economic development and in countries affected by social disruption. In these areas, environmental disturbances, movements of under-privileged populations and the absence of health care infrastructure have been responsible for malaria problems, even in areas where the disease was under some measure of control.

The worsening malaria problems in the world led the World Health Organization to convene a Ministerial Conference on Malaria in Amsterdam, the Netherlands, in October 1992, which endorsed a Global Malaria Control Strategy. This strategy calls for prevention of mortality and reduction of morbidity and economic loss through strengthening local capabilities for provision of early diagnosis and prompt treatment, implementation of selective and sustainable preventive measures including vector control, and control of epidemics; all supported by local research and epidemiological assessment. It stresses the importance of collaboration between the health sector, relevant development programmes in non-health sectors and communities. It clearly states that:

> "no single prescription can be made for the control of malaria in all countries. On the contrary, each country's circumstances will influence the organisation of practicable programmes to identify local problems and priorities and to design and implement appropriate interventions. The key is in competent local action."

How serious is the situation in your area? Is the situation getting better or worse?

The extent, causes and interventions may vary not only between countries, but also within countries, regions or districts. It is therefore important that what is known globally or nationally is adapted to design effective and appropriate measures locally. The problems of malaria and solutions to malaria control are local in nature. This process of local adaptation has to be encouraged at each level of the public health system. At the same time local information can be useful for redefining the national strategy and activities.

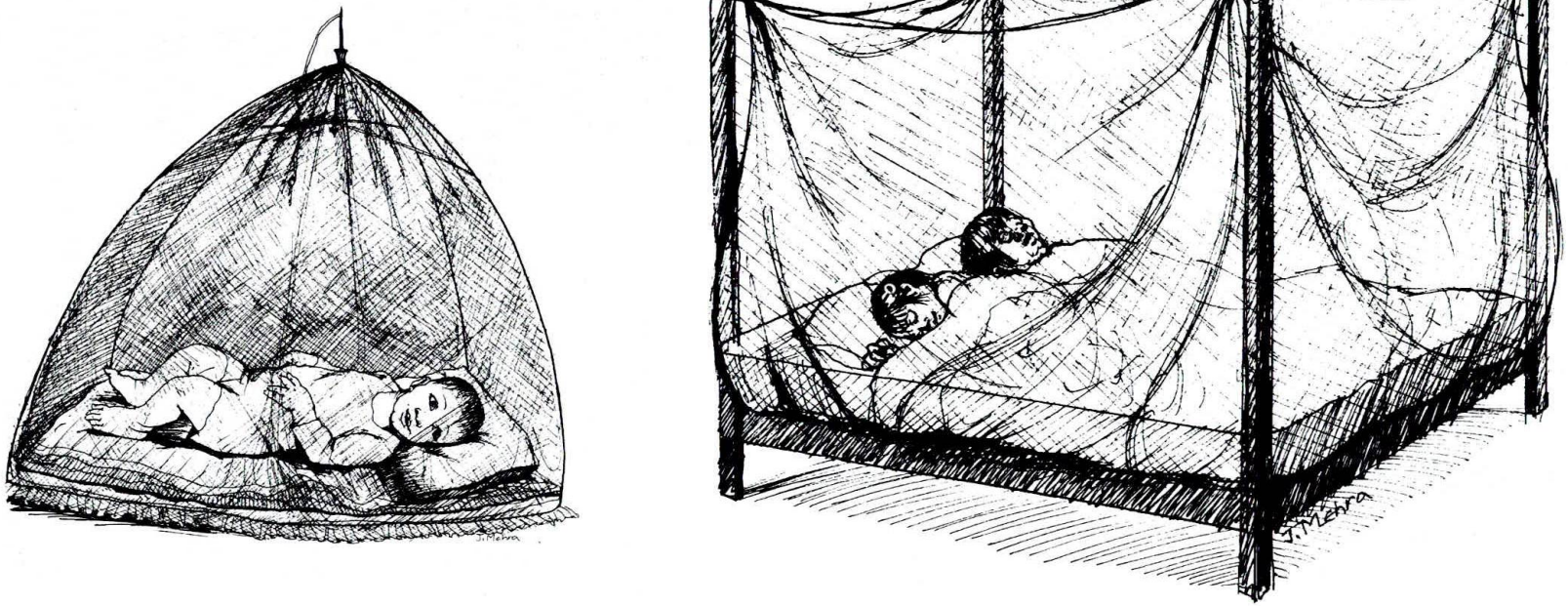
The worksheets and tables provided in this section should help you to define the situation, strategies and activities for your province or region. This exercise could be continued at sub-provincial, district and sub-district levels where appropriate.

The purpose of this section is to encourage the understanding and interpretation of information and data to define the local situation. An important feature is to identify the major gaps in the information you have about your area. In some areas local information is available and can be put to use; in other areas, this information needs to be collected.

Developing a Profile for Your Area

Resource 2 in this Section has been provided to assist you in the process of collecting and collating information on your area. When you have filled in the worksheets on the next pages, you will be able to fill in parts of this profile, and see what else you need to find out.

Good information and understanding of the local problem can lead to development of appropriate and effective strategies. Your clear understanding of the problem and sharing this with the community will help in plannning and implementing better health promotion activities and appropriate community actions to control malaria in your area.



Mosquito nets, especially if impregnated with insecticide, protect you from mosquitoes and malaria

From the Global to the Local Malaria Situation

Worksheet 2.1 on page 43 lists ten factors of relevance to describing the malaria situation. It also provides a country example that could guide you in outlining the situation in your own country. You should also try and assess whether the malaria situation has changed over the past two years - is it improving or getting worse? Consider also whether or not drug resistance is a problem. At this stage it is not important that you have all the answers but recognise the important gaps in your information.

Describing the Malaria Situation in a Country

1. Characteristics of malaria (epidemiological)
2. Number of people at risk
3. Type of people at greatest risk
4. Vectors (Anopheline)
5. Plasmodium species
6. Annual OPD attendance due to malaria
7. Percentage of all OPD attendance due to malaria
8. Number of deaths due to malaria
9. Potential for epidemics
10. Types of environment and malaria transmission

WORKSHEET 2.1

Understanding the Malaria Situation in YOUR Country

FACTORS FOR DEFINING THE MALARIA SITUATION	COUNTRY SITUATION An Example: GHANA*	IN YOUR COUNTRY
1. Characteristics of malaria (epidemiological)	Hyperendemic, stable, perennial, peak after start of major rainy season (July-August)	
2. Population at risk	15,500,000	
3. Type of people at risk	Young children, pregnant women	
4. Vectors *(Anopheles)*	*gambiae, melas, funestus, arabiensis*	
5. *Plasmodium* species	*falciparum, malariae, ovale*	
6. Annual OPD attendance due to malaria	2,342,438	
7. Percentage of all OPD attendance due to malaria	40.31%	
8. Number of deaths due to malaria	Data not available	
9. Potential for epidemics	Yes, in the northern savannah and forest fringe areas	
10. Types of environment and malaria transmission	SAVANNAH: Intense perennial transmission but somewhat reduced during the dry season (November-March) in the north savannah. Southern savannah same as coastal eco-zone FOREST (Agriculture, highland and forest fringe): Stable, hyperendemic with intense perennial transmission with a peak shortly after the major rainy season COASTAL (Lagoons and mangrove swamps): High endemicity, stable with intense perennial transmission, but markedly reduced during dry season (November -March) URBAN (and peri-urban): Transmission is not intense but with some seasonal fluctuations DEVELOPMENT (Gold and diamond mining and water resource development): Transmission in these areas is intense and perennial with seasonal peaks	

** The Health Sector in Ghana, Facts and Figures, Ministry of Health, Ghana, December 1994*

Worksheet 2.2 uses the same ten factors but now we are looking at a smaller area. An example of a regional situation is provided to assist you in completing this worksheet. Again it is important that you develop an understanding of the malaria situation in your province or region and identify the important gaps in your information.

Describing the Local Malaria Situation

FACTORS FOR DEFINING THE MALARIA SITUATION	DEFINING THE SITUATION IN THE REGION An Example: Eastern Region in Ghana•
1. Characteristics of malaria (epidemiological)	Hyperendemic, stable, perennial, peak after start of major rainy season (July - August)
2. Number of people at risk	2,300,000
3. Type of people at greatest risk	Young children, pregnant women
4. Vectors *(Anopheles)*	*gambiae, melas, funestus, arabiensis*
5. *Plasmodium* species	*falciparum, malariae*
6. Annual OPD attendance due to malaria	393,000
7. Percentage of all OPD attendance due to malaria	38.41%
8. Number of deaths due to malaria	Data not available
9. Potential for epidemics	No
10. Types of environment and malaria transmission	FOREST (Agriculture, highland and forest fringe): Stable, hyperendemic with intense perennial transmission with a peak shortly after the major rainy season URBAN (and peri-urban): Transmission is not intense but with some seasonal fluctuations DEVELOPMENT (Gold and diamond mining and water resource development): Transmission in these areas is intense and perennial with seasonal peaks

WORKSHEET 2.2

Understanding the Malaria Situation in YOUR Area

FACTORS FOR DEFINING THE MALARIA SITUATION	**COUNTRY SITUATION** An Example: GHANA	**DEFINING THE SITUATION IN THE REGION** An Example: Eastern Region in Ghana•	**WHAT IS THE SITUATION IN YOUR AREA?**
1. Characteristics of malaria (epidemiological)	Hyperendemic, stable, perennial, peak after start of major rainy season (July - August)	Hyperendemic, stable, perennial, peak after start of major rainy season (July - August)	
2. Population at risk	15,500,000	2,300,000	
3. Type of people at risk	Young children, pregnant women	Young children, pregnant women	
4. Vectors *(Anopheles)*	*gambiae, melas, funestus, arabiensis*	*gambiae, melas, funestus, arabiensis*	
5. *Plasmodium* species	*falciparum, malariae, ovale*	*falciparum, malariae*	
6. Annual OPD attendance due to malaria	2,342,438	393,000	
7. Percentage of all OPD attendance due to malaria	40.31%	38.41%	
8. Number of deaths due to malaria	Data not available	Data not available	
9. Potential for epidemics	In the northern savannah and forest fringe areas	No	
10. Types of environment and malaria transmission	SAVANNAH: Intense perennial transmission but somewhat reduced during the dry season (November-March) in the north savannah. Southern savannah same as coastal eco-zone FOREST (Agriculture, highland and forest fringe): Stable, hyperendemic with intense perennial transmission with a peak shortly after the major rainy season COASTAL (Lagoons and mangrove swamps): High endemicity, stable with intense perennial transmission, but markedly reduced during dry season (November -March) URBAN (and peri-urban): Transmission is not intense but with some seasonal fluctuations DEVELOPMENT (Gold and diamond mining and water resource development): Transmission in these areas is intense, perennial and seasonal peaks	FOREST (Agriculture, highland and forest fringe): Stable, hyperendemic with intense perennial transmission with a peak shortly after the major rainy season URBAN (and peri-urban): Transmission is not intense but with some seasonal fluctuations DEVELOPMENT (Gold and diamond mining and water resource development): Transmission in these areas is intense and perennial with very seasonal peaks	

• *Annual Report 1993, Regional Health Administration, Eastern Region, Ministry of Health, 1994*

Defining the Malaria Control Activities

As a basis for identifying who can play a part in 'Partnerships for Change' and health promotion, use Worksheet 2.3 to describe what malaria control activities take place at different levels of the health services (both public and private). Table 2.3 provides an example of a completed worksheet. Adapt this table to your situation to help you complete Worksheet 2.3.

Together with health workers, the whole community can help dip mosquito nets in a special insecticide solution to kill mosquitoes and other insects

Table 2.3
Malaria Control Activities in Different Parts of the Health System
AN EXAMPLE

LEVELS	POLICY SETTING	STRATEGY DEVELOPMENT	PLANNING	TRAINING/ SUPERVISION	MICROSCOPIC DIAGNOSIS	CLINICAL DIAGNOSIS	TREATMENT	VECTOR CONTROL	PERSONAL PROTECTION	HEALTH PROMOTION	COORDINATION OTHER SECTORS	INVOLVE PRIVATE SECTOR	RESEARCH EVALUATION & MONITORING
NATIONAL	Yes	Yes	Yes	Yes			Yes			Yes	Yes	Yes	Yes
REGIONAL OR PROVINCIAL		Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
DISTRICT			Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
SUB-DISTRICT				Yes		Yes	Yes	Yes	Yes	Yes			Yes
COMMUNITY OR VILLAGE		Yes	Yes	Yes		Yes		Yes	Yes	Yes			?Yes
HOUSEHOLD						?Yes	?Yes	Yes	Yes	Yes			
FAMILY						?Yes	?Yes	Yes	Yes	Yes			
INDIVIDUAL						?Yes	?Yes	Yes	Yes	Yes			

Worksheet 2.3

Malaria Control Activities in Different Parts of the Health System

LEVELS	POLICY SETTING	STRATEGY DEVELOPMENT	PLANNING	TRAINING/ SUPERVISION	MICROSCOPIC DIAGNOSIS	CLINICAL DIAGNOSIS	TREATMENT	VECTOR CONTROL	PERSONAL PROTECTION	HEALTH PROMOTION	COORDINATION OTHER SECTORS	INVOLVE PRIVATE SECTOR	RESEARCH EVALUATION & MONITORING
NATIONAL													
REGIONAL OR PROVINCIAL													
DISTRICT													
SUB-DISTRICT													
COMMUNITY OR VILLAGE													
HOUSEHOLD													
FAMILY													
INDIVIDUAL													

Treatment of Malaria in Your Area

Tables 2.4 a, b & c show the usual treatment regimens for uncomplicated malaria according to the species and to the degree of drug resistance of P.falciparum. Most countries have developed national treatment protocols, which should be followed and used when sharing with the community, private practitioners and shopkeepers. If you do not know the national protocol, contact your Ministry of Health for a copy, and use it to complete Worksheet 2.4.

Treatment of severe or complicated malaria requires specially trained and qualified staff, so detailed drug schedules are not given here.

Table 2.4a: Treatment of *Plasmodium vivax, P. malariae, P. ovale* and chloroquine-sensitive *P. falciparum*

(i) Chloroquine dosage - 150 mg base tablets

Note dosage by base, not salt

Age	Weight (kg)	Day 1 10 mg/kg	Day 2 10 mg/kg	Day 3 5 mg/kg	Total 25 mg/kg
<6 months	<7	½	½	¼	1¼
6-11 mos.	7-9	1	½	½	2
1-3 years	10-14	1	1	½	2½
4-6 years	15-19	1½	1½	½	3½
7-8 years	20-30	2	2	1	5
9-15 years	31-45	3	3	1½	7½
>15 years	>45	4	4	2	10

(ii) Chloroquine dosage - 100 mg base tablets

Note dosage by base, not salt

Age	**Weight (kg)**	**Day 1** 10 mg/kg	**Day 2** 10 mg/kg	**Day 3** 5 mg/kg	**Total** 25 mg/kg
<6 months	<7	¾	½	½	1¾
6-11 mos.	7-9	1	1	½	2½
1-3 years	10-14	1½	1½	½	3½
4-6 years	15-19	2	2	1	5
7-8 years	20-30	3	3	1½	7½
9-15 years	31-45	4½	4½	2¼	11¼
>15 years	>45	6	6	3	15

Note: Some countries add primaquine for radical cure of *P.vivax* or gametocytocidal effect on *P. falciparum;* others do not

Table 2.4b: Treatment of Chloroquine-resistant *P. falciparum*

(i) Sulfadoxine-pyrimethamine dosage - 500+25 mg tablets
(30+1.5mg/kg single dose)

Age	**Weight (kg)**	Sulfadoxine-pyrimethamine tablets (single dose) 500/25mg tablets
< 2 months		0
2-12 months	<10	½
1-4 years	10-19	1
5-8 years	20-30	1½
9-15 years	31-45	2
>15 years	>45	3

Table 2.4c: Treatment of chloroquine and sulfadoxine-pyrimethamine resistant *P. falciparum*

(i) Quinine and Tetracycline dosage

(Quinine 300 mg tablets - 30 mg/kg/day
Tetracycline 250 mg tablets - 25 mg/kg/day)

Age	Weight (kg)	Quinine tablets			Tetracycline tablets		
		dose/ 8 hrs	dose/ days	Total 7 day	dose/ 8 hrs	dose/ days	Total 7 day
< 6 months	<7	¼	¾	5¼	-	-	-
6-24 mos	7-15	½	1½	10½	-	-	-
2-8 years	16-30	1	3	21	-	-	-
9-15 years	31-45	1½	4½	31½	1½	4½	31½
>15 years	>45	2	6	42	2	6	42

Note: Depending on levels of resistance some countries only give 3 days of quinine.

Check national protocol. No tetracycline for pregnant women.

(ii) Mefloquine treatment dosage - 250 tablets

Mefloquine has been introduced in a few countries. Dosage varies from 15 to 25 mg/kg depending on the level of mefloquine resistance. Find out your national recommended dosage before use.

These treatment schedules may not be easy for non-medical persons or people in the community to understand. The following schedule is an example of how to simplify the treatment schedule so it is easy for people to understand. Make a similar schedule for people in your area.

An example from one country

Chloroquine treatment for chlorquine sensitive malaria*

Chloroquine tablets - 100mg base

DAY	TABLETS	AGE (years)				
	100 mg base	less than 1	1 - 3	4 - 6	7 - 11	over 11
1	number of tablets	1	1 1/2	2	3 1/2	6
2	number of tablets	1	1 1/2	2	3 1/2	6
3	number of tablets	1/2	1/2	1	1 1/2	3

Chloroquine tablets - 150mg base

DAY	TABLETS	AGE (years)				
	150 mg base	less than 1	1 - 3	4 - 6	7 - 11	over 11
1	number of tablets	1/2	1	1 1/2	2 1/2	4
2	number of tablets	1/2	1	1 1/2	2 1/2	4
3	number of tablets	1/2	1/2	1/2	1	2

Chloroquine syrup - 50mg base/5ml syrup

DAY	SYRUP	AGE (in years)	
	50 mg base /5ml	less than 1	1 - 3
1	amount of syrup	5 ml + 2.5 ml TOTAL = 7.5 ml	5 ml + 5 ml + 5 ml TOTAL= 15 ml
2	amount of syrup	5 ml + 2.5 ml TOTAL = 7.5 ml	5 ml + 5 ml + 5 ml TOTAL= 15 ml
3	amount of syrup	5 ml TOTAL = 5 ml	5 ml TOTAL= 5 ml

The regimen of amodiaquine treatment is the same as that of chloroquine (150mg base), provided the tablet contains 150mg of amodiaquine base.

One full teaspoon contains 5ml.

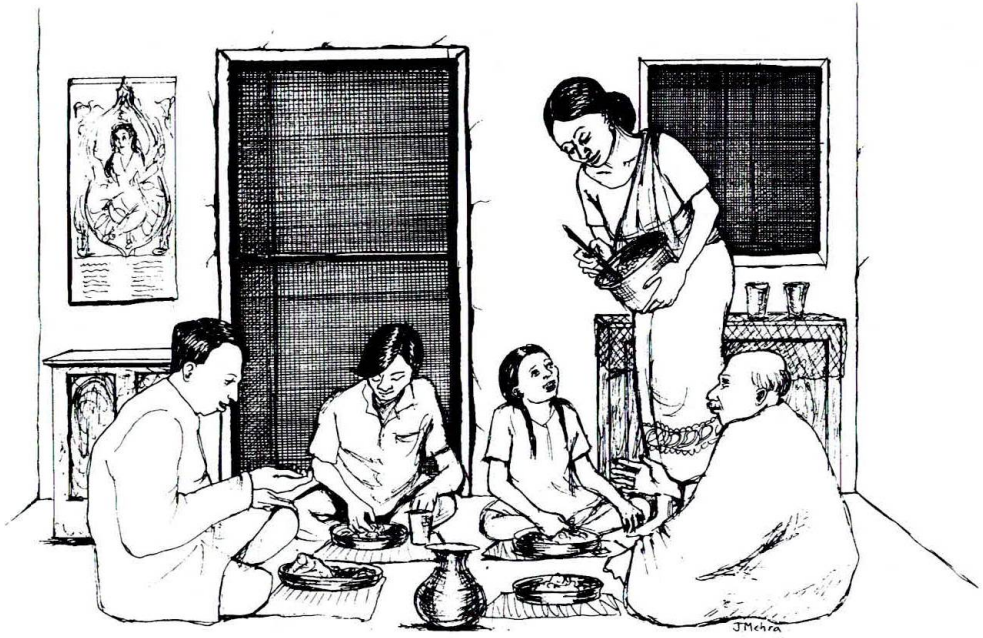
**From "The Treatment of Malaria: information for non-pharmacists selling anti-malarial drugs" WHO, Geneva, 1994*

Biological Features of Some Vectors and Control Measures

Table 2.5 shows the biological features of some vectors in Asia and Africa, which are relevant to their control. Use Worksheet 2.5 to describe the vectors in your area. With this information, look at the control measures listed in Worksheet 2.6, and note which control measures may be effective against your local vectors. Note that this worksheet is for guidance only, as many mosquito species have mixed behaviour. In addition, logistic and economic factors are very important in determining vector control strategy. Find out about your national policy on this.

People's Knowledge, Beliefs, and Practices Related to Malaria in Your Area

Worksheet 2.7 lists the type of information you need on people's understanding to develop a true 'Partnership for Change'.



Screening the house helps to protect the whole family from malaria and other diseases

TABLE 2.5

Significant Biological Features of the Major and Some Secondary Malaria Vectors of Cambodia, Laos, Myanmar, Thailand and Vietnam*

Anopheles Species	Resting Location	Feeding time/ location	Host preferences	Breeding Sites	Insecticide susceptibility	Health Promotion Notes
1. *dirus* complex (7 sibling species; described as *A. balabacensis* in earlier literature	Mainly out	Mainly Late (or 20-02.00 hrs, out and in	Mainly man	Small shady pools mainly in forest and plantations, footprints, stream seepages, wheel ruts, gem pits, hollow logs, sometimes wells	Susceptible to DDT and others	
2. *minimus* (at least 2 sibling spp)	Mainly out (previously in)	All night, mainly out (previously in)	Man and cows	Streams in forested foothills	Susceptible to DDT	
3. *maculatus*) complex (8spp.	Mainly out	Peak 19-20.00 or 21-24.00, mainly out	Mainly non-human	Sunlit streams. Sometimes ponds, tanks, riverbed pools	Susceptible to DDT and others	
4. *sundaicus* (2 spp. suspected)	Out and in	All night, peak 20-24.00 h, out and in	Man and domestic animals	Brackish or salt water near coast. Rockpools, river mouths	DDT resistance in Indonesia and Vietnam	

Significant Biological Features of the Major African Malaria Vectors°

Anopheles Species	Resting Location	Feeding time/ location	Host preferences	Breeding Sites	Insecticide susceptibility	Health Promotion Notes
1. *gambiae*	Mainly in	Mainly late, indoors	Mainly human	Sunlight temporary pools, rice fields	Some resistance reports	
2. *arabiensis*	In and out	Mainly late, in and out	Human and animals	Temporary pools, rice fields		
3. *melas*	Out and in	Mainly late, in and out	Animals and human	Salt water lagoons, mangrove swamps		
4. *merus*	Out and in	Mainly late, in and out	Mainly animals	Salt water lagoons, mangrove swamps		
5. *funestus*	Indoors	Mainly late, in	Mainly human	Semi-permanent and permanent water especially with vegetation, swamps, slow streams, ditch edges		

* Meek, S.R., Vector Control in some Countries of Southeast Asia: Comparing the Vectors and the Strategies, *Ann. Trop. Med. Parasit.* (1995) 89 135-147
° Developed by S.R. Meek and J. Lines

Worksheet 2.5

Biological Features of Malaria Vectors in your Area[a]

IN YOUR AREA?						
***Anopheles* Species**	**Resting Location**	**Feeding time/ location**	**Host preferences**	**Breeding Sites**	**Insecticide susceptibility**	**Health Promotion Notes**

[a]Developed by S.R. Meek

WORKSHEET 2.6

Vector Control Measures and the Types of Mosquito which would be most readily controlled by them¢

Control Measure	Optimum Biological Features				Breeding Site	Vectors showing optimum features§		
	Resting Location	Feeding Time	Feeding Location	Host Preferences		S.E. Asia	Africa	IN YOUR AREA?
Residual indoor house spraying	In	Late	In	Human	0	*sundaicus*	*gambiae* complex, *funestus*	
Ultra low volume outdoor spraying*	Out	Early	0	0	0	*maculatus, minimus, sundaicus*	0	
Insecticide treated mosquito nets	In	Late	In	Human	0	Indoor feeding part of all species	*gambiae* complex, *funestus*	
Removal of breeding sites	0	0	0	0	Accessible, not numerous	some *maculatus, sundaicus*	*funestus*, some *gambiae* complex	
Larva control by chemicals	0	0	0	0	Accessible, not numerous, still water	*sundaicus*	0	
Mosquito repellents	0	0	0	0	0	All	All	
Mosquito coils	In	Early	In	0	0	Part of population: all species	Part of population: all species	
House screening	In	0	In	Human	0	Part of population: all species	All	
Clothing for protection	0	0	0	0	0	All	All	
Public information	0	0	0	0	0	All	All	

0 = not important or relevant

* only for epidemics (and usually in town or camps); too expensive to consider in most rural areas

§ Even where the biological features suggest a control measure could be effective, there may be economic and logistical reasons not to attempt it

¢Developed by S.R. Meek

Worksheet 2.7

People's Knowledge, Beliefs, and Practices related to Malaria in your Area*

Question	Community Response
1. Is there a local name for malaria?	
2. What are the symptoms of malaria?	
3. What is the cause of malaria?	
4. Where do you get information on malaria?	
5. Where do you go first for treatment of fever?	
6. Where do you go first for treatment of malaria?	
7. If the first treatment does not work, where do you go next?	
8. How do you travel for the first and second line of treatment?	
9. How much does transport cost?	
10. How much does treatment cost?	
11. What do you think of the quality of treatment from different sources?	Source Quality
12. What do you do to prevent malaria?	
13. What makes the prevention difficult?	
14. How much do you pay for prevention?	
15. Do you have any mosquito nets?	
16. How much do mosquito nets cost?	
17. If you do not have any mosquito nets, would you buy one?	
18. How much would you pay for a mosquito net?	
19. Do you have any ideas to improve malaria control?	
20. Does your community have any committees or regular meetings? If yes, what are they?	

* If your area includes different socio-economic groups, you may need to complete a separate worksheet for each group e.g. urban and rural, ethnic minorities, immigrant labour. If you do not have this information you may need to do a study to find out.

Global to Local Strategy

Table 2.8 provides characteristics of major malaria types and control strategies appropriate for each type. Assess the relevance of this global information to the needs and environment in your area. If you do not have it already, ask your Ministry for your national malaria control strategy. Based on the national strategy, adapt and modify the information in Table 2.8 to your conditions and start to define your local strategy in Worksheet 2.8.

A Country Example - Uganda may help you in outlining your strategy.

Table 2.8

Characteristics of Malaria and Possible Actions Required *

EPIDEMIOLOGICAL TYPES	CHARACTERISTICS OF MALARIA	MANAGEMENT NEEDS	DISEASE MANAGEMENT ACTIVITIES REQUIRED	PREVENTION AND CONTROL ACTIVITIES
Savannah or grassland (Africa south of Sahara, Papua New Guinea)	• Generally present throughout the year • Seasonal increase • Drug resistance, mainly *P. falciparum* • Mainly affects children and pregnant women	• Increased coverage by health services • An appropriate national malaria control programme	• Increase coverage by health services through collaboration between formal and informal sectors to treat malaria • Training of HWs in treatment • Assess drug resistance	• Health Promotion • Mosquito nets (insecticide treated, if possible) • Other types of personal protection • Chemoprophylaxis for pregnant women • Elimination of mosquito breeding sites
Plains and valleys outside Africa (Central America, China, Indian subcontinent)	• Moderate transmission and varies during the year • Often mainly *P. vivax* • Strong seasonal variations • Risk of epidemics • Drug resistance well established	• Effectiveness of large-scale insecticide spraying programmes needs review • Increase reach and quality of public and private services • Epidemiological and entomological surveillance	• Disease management by general health services including private providers • Proper and complete treatment	• Health Promotion • Mosquito nets (insecticide treated, if possible) • Other types of personal protection • Elimination of mosquito breeding sites • Spraying of houses may be considered
Highland and desert fringe (African and south-east Asian highlands, Sahel, southern Africa, south-west Pacific)	• High risk of epidemics • Major seasonal variation • Influenced by agricultural practices • Migration may lead to outbreaks	• Preparedness for management of malaria cases may be poor and needs to be improved in malaria-free but epidemic prone areas • Special operational strategies for remote communities are needed • Management system for early assessment of epidemics • Epidemiological and entomological surveillance	• Rapid response to outbreaks • Treatment of fevers • Awareness and preparedness of health services for dealing with outbreaks	• Health Promotion • Spraying of houses may be considered • Localised spraying in time with insecticide during epidemic or outbreak • Mosquito nets (insecticide treated, if possible)

** Adapted from "Global Strategy for Malaria Control", WHO, 1993 and further developed by I.S. Narula, S. Mehra, S.R. Meek and J. Lines*

EPIDEMIOLOGICAL TYPES	CHARACTERISTICS OF MALARIA	MANAGEMENT NEEDS	DISEASE MANAGEMENT ACTIVITIES REQUIRED	PREVENTION AND CONTROL ACTIVITIES
Agricultural, irrigation or industrial projects (Africa, Asia, South America)	• Increase in transmission because of water bodies • Seasonal outbreaks due to immigration	• Beware of insecticide resistance in cotton-growing areas • Preparedness for possible epidemics because of non-immune labour populations • Involve projects' management and facilities	• Early detection and prompt treatment • Increase malaria awareness by training health workers and community	• Environmental management at planning stage • Health promotion • Mosquito nets (insecticide treated, if possible) • Other personal protection • Insecticide spraying or chemoprophylaxis if needed • Elimination of mosquito breeding sites
Urban and peri-urban (Africa, South America, south Asia)	• Transmission highly variable • Immunity of the population variable • Specially adapted vectors responsible for epidemics in S. Asia	• Better targeting of larva control and better urban development plans • High preparedness for epidemics • Regulation but no restriction on commercial outlets	• Need for prompt and full treatment • Develop standard treatment regimen and promote among public/private providers and community	• Health promotion • Mosquito nets (insecticide treated, if possible) • Other personal protection • Control breeding sites by larviciding or environmental planning and manaagement • Spraying of houses in selected areas
Forest and forest fringe (South-east Asia, South America)	• Focal intense transmission • Many risk groups, often occupational • Drug resistance very high	• Assess benefits, if any, of house-spraying and larval control • Regulation but no restriction of commercial outlets • Special needs because of ethnic and geographical isolation • Occasional entomological surveys	• Standardise treatment practices • Prompt and full treatment	• Health promotion to improve community involvement • Mosquito nets (insecticide treated, if possible) • Other personal protection • Consider siting of dwellings
Refugee malaria	• Movement of non-immune populations into malaria zones • Increased contact with mosquitoes • Environmental degradation leading to increase in mosquitoes • Epidemics	• Curative services need to be established • Environmental control methods should be implemented	• Early detection and full treatment • Standard treatment protocol disseminated	• Health promotion • Mosquito nets (insecticide treated, if possible) • House and space spraying where possible and appropriate • Environmental measures to reduce breeding sites

Characteristics of Malaria and Possible Actions Required *

A COUNTRY EXAMPLE - UGANDA*

EPIDEMIOLOGICAL TYPES	CHARACTERISTICS OF MALARIA	MANAGEMENT NEEDS	DISEASE MANAGEMENT ACTIVITIES REQUIRED	PREVENTION AND CONTROL ACTIVITIES
Stratum 1 Rural areas: a. Population engaged in traditional agriculture and settled b. Nomadic pastoralists	• Stable perennial transmission • Incidence and prevalence of malaria high • Morbidity and mortality concentrated in infants & preschool age children • Adults relatively clinically immune	• Improve logistics for provision of supplies and equipment • Introduce laboratory services especially in peripheral areas • Improve referral systems	• Provide early diagnosis and management of malaria • Provide appropriate anti-malaria drugs to all suspected and diagnosed cases • Encourage use of appropriate doses by establishing definite treatment regimens	• Increase public awareness of malaria, importance of early and complete treatment • Promote self-protection measures e.g. mosquito nets • Mobilise community for mosquito source reduction
Stratum 2 High altitude areas with traditional agricultural systems	• Unstable transmission • Possibility of epidemics	• Establish simple early warning signs for epidemic • Preparedness for rapid mobilisation of resources • Improve surveillance of morbidity and mortality using district monthly reports • Improve logistics for provision of supplies and equipment • Introduce laboratory services especially in peripheral areas • Improve referral systems	• Provide early diagnosis and management of acute malaria • Provide appropriate anti-malaria drugs to all suspected and diagnosed cases • Encourage use of appropriate doses by establishing definite treatment regimens	• Increase public awareness of malaria, importance of early and complete treatment • Promote self-protection measures e.g. mosquito nets • Mobilise community for mosquito source reduction
Stratum 3 Urban and sub-urban areas with well developed infrastructure; factories, small scale enterprises	• Lower prevalence of malaria	• Conduct surveys to assess morbidity among workers and school children • Improve logistics for provision of supplies and equipment • Improve laboratory services • Improve referral systems	• Improve availability of drugs at work place and schools • Strengthen hospitals to manage complicated and severe malaria • Provide early diagnosis and management of acute malaria • Provide appropriate anti-malaria drugs to all suspected and diagnosed cases • Encourage use of appropriate doses by establishing definite treatment regimens	• Increase public awareness of malaria, importance of early and complete treatment • Promote self-protection measures e.g. mosquito nets • Mobilise community for mosquito source reduction

**Based on information from "Uganda National Plan of Action for Malaria Control, 1993-1996, Communicable Diseases Control Division, Ministry of Health*

WORKSHEET 2.8

Characteristics of Malaria and Possible Actions Required
IN YOUR AREA? *

EPIDEMIOLOGICAL TYPES	CHARACTERISTICS OF MALARIA	MANAGEMENT NEEDS	DISEASE MANAGEMENT ACTIVITIES REQUIRED	PREVENTION AND CONTROL ACTIVITIES

**Developed by I.S. Narula, S. Mehra, S.R. Meek and J. Lines*

The previous tables and worksheets help you to define the malaria situation and what actions and activities may be appropriate for your area. Complete the "Profile for Malaria in Your Area" that is provided at the end of this section as Resource 2 with the information you collect on all the worksheets. This information when completed will provide the basis for developing a programme that is appropriate and relevant for your area.

The information in the "Profile" will also help you in establishing partnerships with the community for appropriate malaria control strategy and activities in your area.

RESOURCE 2

Developing a Malaria Profile for Your Area

(Obtain or draw a map of your area to use with this Profile)

INFORMATION			
Characteristics	**Why it is important**	**How it may be used**	**INFORMATION FROM YOUR AREA**
I. Host			
1. Population size	Indicates the total number of people at risk	To plan amount of drugs needed and to plan health facilities	
2. Distribution	Indicates accessibility of people, urban and rural environment	To determine the type of surveillance and malaria control activities required	
3. Occupations	Indicates risk of acquiring malaria e.g. farming, fishing, hunting, wood cutting, wood gathering, cattle herders, salespersons etc.	To find out who needs to know more about malaria and control activities required	
4. Mobility	Increases possibility of epidemics with movement of cattle herders, travel from urban to rural areas, labour movement with development projects, dams, refugees etc.	To plan control activities. To allocate resources where they are most needed	
5. Types of dwellings and location in relation to breeding sites	Open dwellings are difficult to spray. Different ones need different net designs. Proximity of breeding sites increases risk	Helps to determine appropriate vector control measures	
6. Income levels	Ability to buy health care, protection measures, quality of dwellings	To design cost-effective but equitable systems of health care supply (e.g. treatment, nets)	

	INFORMATION		
Characteristics	**Why it is important**	**How it may be used**	**INFORMATION FROM YOUR AREA**
7. Night time behaviour	If people are outdoors during the mosquito biting time, their risk of infection is higher	To protect children by suggesting when they should be indoors and using a net	
8. Treatment seeking behaviour	Influences access to early and effective diagnosis and treatment	To identify barriers to obtaining early diagnosis and treatment. To determine information needs of the community and of health care providers	
9. Environmental maintenance	Poor maintenance of canals and water pumps or poor drainage can create breeding sites for *Anopheles*	To determine information needs of the community, water authorities and municipalities	
10. Personal protection activities	Reduces mosquito-human contact (number of bites) so reduces transmission	To determine materials and information required	
11. Community protection activities	Indicates community's concern about malaria	To support community efforts to arrange accessible health care, finance nets and insecticide, reduce breeding sites	
II. Disease			
12. Endemicity	Determines the type of control activities needed	To make a plan of control measures	
13. Morbidity (number of cases of disease per year)	Helps determine the scope of the problem and impact on the community	To plan health facilities	
14. Mortality (number of deaths from the illness per year)	Helps determine the scope of the problem and impact on the community	To plan health facilities, to assess quality of health care and needs for training and improvement	

	INFORMATION		
Characteristics	**Why it is important**	**How it may be used**	**INFORMATION FROM YOUR AREA**
15. Sex distribution of cases (ratio of male to female)	Shows who is at more risk, where transmission occurs and immune status of population	If mainly males, it may be occupational, if pregnant women, they should be focus of control efforts	
16. Parasite species (percent of each species)	Determines treatment regimens. If predominantly *P. falciparum* there will be more complications and mortality	Health promotion and rapid access to health services are more important where *P. falciparum* is predominant	
17. Drug resistance status	Influences choice of effective drugs, effectiveness of self medication and cost of drug provision	Resistance increases need for more peripheral laboratory services	
III. Vector			
18. Species	Different species have different behaviour	Influences mosquito control strategy	
19. Preferred breeding sites	Indicates which water bodies are important and whether larva control is feasible	Helps to decide which control methods to use and determines role of community and other service sectors, industry; determines content of communication	
20. Resting habits (indoors, outdoors)	House spraying and insecticide treated nets may be more effective against indoor resters	Helps to decide which control methods to use and determines role of community and other service sectors, industry; determines content of communication	
21. Biting habits (time, host preference, location)	House spraying and insecticide treated nets may be more effective against indoor biters and if people are inside at peak biting time	Helps to decide which control methods to use and determines role of community and other service sectors, industry; determines content of communication	

	INFORMATION		
Characteristics	**Why it is important**	**How it may be used**	**INFORMATION FROM YOUR AREA**
22. Seasonal density changes	Affects seasonal pattern of disease	Helps to determine content of communication and timing of control activities by communities and health sector	
IV. Environment			
23. Climate, rainfall, surface water, temperature, vegetation, topography	Affects suitability for transmission	Determines mosquito control strategies and prediction of outbreaks	
V. Control activities (by community and health services)			
24. Types of health care (list of all facilities, whether they have supplies, microscopes, staff, etc.	Public health services, private sector, non-governmental organisations; all contribute to provision of health care, but vary in quality, accessibility and affordability	To provide the best access for all affected people to early effective diagnosis and treatment and to appropriate prevention. To determine content of communication	
25. Types of mosquito control (list types used by health services and community)	Different countries use residual house spraying, occasionally outdoor ultra low volume spraying in towns or camps, chemical or biological larva control, removal of breeding sites or nothing	To determine content of communication	
26. Types of personal protection	Indicates acceptability and availability of repellents, nets coils etc	To build on current practices and make them more effective	

	INFORMATION		
Characteristics	**Why it is important**	**How it may be used**	**INFORMATION FROM YOUR AREA**
27. Chemoprophylaxis of pregnant women	It may be difficult to encourage women to take prophylaxis regularly	To develop the most efficient and acceptable distribution system	
28. Availability of treatment protocols	It is important that all drug providers and users know the most appropriate treatment for the area	To train health providers and educate mothers	
29. Outbreak control activities	In some areas outbreaks of malaria are increasingly important and can cause deaths	To involve community in reporting fevers and implementing control activities. To ensure drug supplies are readily available	
OTHER			

Developed by Narula, Mehra, Meek and Lines, 1995

Find out also what people think, what they do and why

2.2 Helping Communities to Understand Malaria and to Protect Themselves

The first step is to make a list of all the types of people you need to work with, such as mothers, fathers, schoolchildren, shop keepers, community leaders, private practitioners, religious leaders and others.

There are three main areas where community members can be involved in reducing the burden of malaria:

1. Knowing when to suspect malaria by knowing the signs and symptoms of both mild and severe malaria

2. Knowing how to obtain prompt and effective diagnosis and treatment

3. Knowing how they may prevent malaria

This would help them to decide if malaria is a problem against which they should take action.

Knowing when to suspect malaria

Much of severe disease and death from malaria could be avoided if people presented earlier for diagnosis and treatment. Use Worksheet 2.9 to find out how the community defines malaria. Based on their definition you will see where you may need to supplement their knowledge.

Even when a person suspects that they have malaria, there are still many factors which may delay their seeking treatment, such as: lack of money, lack of time, or the decision can only be made by the head of the household. You need to discuss with the community problems relating to delays in seeking treatment and the complications that can arise with late treatment.

Knowing how to obtain prompt and effective diagnosis and treatment

The first of the four basic components of the Global Malaria Strategy is "to provide early diagnosis and prompt treatment." This is an area where you can make a major contribution to reducing suffering from malaria by providing information to communities, shopkeepers and private practitioners and by improving communication between them.

Worksheet 2.9

Some of the Signs and Symptoms of Uncomplicated (mild) Malaria and Severe or Complicated Malaria

Uncomplicated Malaria	Community Beliefs Tick what signs community associates with malaria
Main Signs:	
Fever	
Chills	
Sweating	
Other signs often seen:	
Headache	
Aches	
Joint pains	
Anaemia	
Jaundice	
Enlarged spleen or liver	

Severe or Complicated Malaria	Community Beliefs Tick what signs the community associates with malaria
Main Signs in addition to those for	
uncomplicated malaria:	
Coma	
Delirium	
Agitation	
Somnolence	
Convulsions	
Very high fever (39 degrees)	
Very pale colour	
Much vomiting	
Dehydration	
Little urine of dark colour	
Hypoglycaemia	
Haemoglobinuria	

There are many different ways that people can seek diagnosis and treatment of their illness. Some of the strengths and weaknesses of different sources of treatment and what the patient needs to know are shown in Table 2.10.

Table 2.10

Use of Different Treatment Sources

Treatment Source	Possible Advantages	Possible Disadvantages	What the Person Needs to Know when Using this Source of Treatment
1. Traditional healer	May visit home, may help with other problems	May relieve symptoms, but not remove causes	*See Footnotes* Although traditional healers can help with some types of illness, malaria today needs exactly the right drugs
2. Shop	Very convenient, always has some medicine	Not qualified to diagnose and treat; may not know dosage; may give dangerous, unnecessary or out of date medicine; may be expensive	*See Footnotes* If seller does not know the dosage, go somewhere else for treatment, drugs should not be old; if it is not getting better after two days it is very important to go to a *trained* health provider, as it may be another illness or the drugs may not be working
3. Private Practitioner	May visit home, friendly, always has some medicines	May be expensive and give unnecessary medicines	*See Footnotes* Injections are not better than tablets when a person is not seriously ill; does the practitioner have a good reputation?
3. Community health worker	Close to home, worker has some training; worker should know if person needs to go to hospital	Sometime worker not available, medicine out of stock	*See Footnotes*
4. Public clinic or hospital	Trained staff; facilities for treating severe and complicated malaria	Far from home; sometimes staff unfriendly; long waits; medicine out of stock and has to be bought	*See Footnotes*

Footnote:

1. *Treating severe malaria costs much more than treating malaria early.* A person should not delay seeking treatment if he/she suspects malaria. The longer the person waits the worse it can become and it can be dangerous or even fatal
2. *Take proper and complete treatment.* It is very important that the person follows instructions about taking medicines and takes the full treatment. Ask health provider to explain instructions if not clear
3. *See a trained health provider if person is not better in two days or if becoming worse*
4. *See a trained health provider if signs of malaria return a few weeks after full treatment*
5. *Some anti-malarial drugs can be very dangerous if taken in the wrong dose*

Knowing How to Prevent Malaria

There are three main ways that people can protect themselves from malaria:

a. reducing the number of malaria vectors
b. avoiding mosquito bites
c. taking drugs to prevent malaria (chemoprophylaxis)

You can reduce the number of mosquitoes by removing their breeding sites, avoid creating conditions for new breeding sites, and by killing adult mosquitoes or their larvae.

Removal of breeding sites may be effective in certain conditions. Not all standing water is suitable for breeding of mosquitoes and especially not for Anopheles mosquitoes.

- Anopheles rarely breed in containers, which Aedes mosquitoes use
- Anopheles generally do not like very polluted water, where Culex mosquitoes are often found

Different vectors in different countries prefer different breeding sites. This why it is important to get local information. Some breed in streams, and some in ricefields, which cannot be removed. Some adult mosquitoes can also fly more than a kilometre from the breeding site. There are still many cases where the community can remove breeding sites such as pools around leaking taps in Africa and India.

Killing larvae with insecticides is expensive, but is sometimes done by health services or private companies. Killing adult mosquitoes is done in some countries by the health services in residual house spraying programmes. Many people refuse to have their houses sprayed for a variety of reasons including beliefs that:

- it is not effective
- it increases other insects
- it makes a mess
- spray teams are rude

Where spraying is to be done these issues should be discussed between the health services and the community and resolved.

Many countries do not have any spraying programmes, but households kill mosquitoes with sprays, mosquito coils or with insecticide-treated mosquito nets. People may need more information to get the best value for money from these methods. Insecticide treatment of nets is likely to become more widespread. It is important to explain to people how to treat their mosquito nets properly:

- how to mix the insecticide
- when to treat the nets

- and the problems of washing nets and thus losing the insecticide

Promotion of treated nets needs a lot of effort especially where people are not in the habit of using nets or have little money to pay for them or for the insecticide.

People can protect themselves, especially young children and avoid mosquito bites by doing the following:

- sleeping under mosquito nets
- using screens on their windows and staying indoors
- wearing clothes and covering their arms, legs and feet during times when mosquitoes usually bite (during evenings and at night)

Some people buy mosquito repellent or use local leaves which they rub on the skin. Others may burn leaves on their fires to keep mosquitoes away. All these activities can help in reducing the malaria risk if done properly.

Chemoprophylaxis is only recommended in certain countries and usually only for pregnant women. Find out your national policy and what drugs are recommended, if any. Compliance is often rather low, so look for ways to improve it.

Helping the community to make the best decisions

Developing your strategy for health promotion will require much discussion with the community. It is important to give enough emphasis to training of the health providers who will be involved, so that they have the information they need, and know how to involve the community.

To develop your 'Partnership for Change' strategy you need to consider which members of the community usually make the decisions. Provide these persons with adequate and appropriate information so they can make good decisions.

> For instance, a mother may suspect her child has malaria, but the father decides whether they have enough money to go to the clinic.

School children may not make decisions now, but they learn quickly, and can pass information to their families, and remember it when they grow up. The following BOX gives some ideas of how to develop a 'Partnership for Change' in schools. Think of other members of the community, and develop your strategies for them.

Malaria Control for School Children	
1. Provide the basic information on the cause, prevention and treatment of malaria and who is at risk	
2. School Projects:	
Primary School	Draw a mosquito and where it lives in your area
Secondary School	Write and perform a play on what a mother does when her child is sick
Boarding School	Keep the school malaria-free. Find mosquito breeding sites, fix drains and leaking taps, put screens or curtains (treated with insecticide) on dormitory windows. Provide treated mosquito nets.
All Schools	Set up a service for dipping of nets in insecticide.

SECTION 3

DEVELOPING and SHARING MESSAGES*

For Communication and 'Partnerships for Change' programmes, messages are developed according to what people know, what they do, and through methods that they believe in or trust. The following steps will help you to develop and share your messages. Most of the information you need to carry out these steps will come from the information you gather with the community and about the malaria situation.

1. Define clearly what ideas you are trying to promote or actions you want people to take

What people do and know are central to a communication programme and are the basis for developing your messages and materials. For example:

- Bring your child with fever to see the health provider
- Make sure all young children sleep under a mosquito net

* This section is based on, *"Getting the Message Out: Designing an Information Campaign on Women's Health,"* by Ann Starrs, Family Care International Inc.; and has been adapted for malaria control programmes

2. Identify whom in the population you want to reach with the messages

The main community groups for the malaria control programme may be parents with young children, pregnant women or working adults. But there are also other groups whose knowledge, beliefs and attitudes may have a strong influence on their actions. These 'influencing' groups could be community leaders, heads of households, religious leaders or local politicians and government officials - these groups may be just as important for malaria messages. The support from 'influencers' may be critical to the success of your communication efforts.

Identify which groups you want to reach for the success of the malaria control programme.

3. Learn about the existing knowledge, beliefs and behaviour of community groups

Become familiar with present behaviours related to malaria and attitudes, beliefs, social and economic factors which determine these behaviours. This information will help in designing messages which build upon the existing knowledge and beliefs of the community. Learn with the community about these. It can also

serve as a useful baseline for the evaluation (Step 11) of the communication programme at a later stage.

4. Find out what are community groups' sources of information about health at present

To reach community groups find out how information gets to them. Find out what sources of information community groups feel they can believe.

5. Select the communication channels and media which are most capable of reaching community groups

Use the information from steps 3 and 4 to work out what channels and means may be most effective for which community groups.

These will include a mix of:

- Interpersonal Channels:
  Health professionals, community health workers, religious and community leaders, traditional health practitioners, women's and youth organisations, school teachers and school children, trade union leaders, development workers, government officials, charitable and non-governmental organisations.
- Mass Media:
  Radio, television, newspapers, magazines, comic books
- Small Media:
  Posters, cassettes, leaflets, brochures, slidesets, video, flip charts, flash cards, T-shirts, badges or loudspeakers
- Traditional folk media:
  Drama, songs

Do not rely on a single means of communication. Always use a mix of various channels and media so that community groups receive consistent messages from different sources.

6. Decide on the content of the messages

The data you have gathered about your area provide the information for creating messages for your communication programme. Messages are not just information; they must present an argument that will convince people to do something. Messages should also address the concerns of community groups. Content of programme messages should be:

- information that the community group needs but does not have
- actions that the community group may need to take
- suggested ways to overcome obstacles to taking the action

Outlining the Content of Communication Messages

Here is an example from an antenatal programme. Try and adapt this using the information you have about the malaria situation in your area.

Topic:
Encouraging antenatal care attendance so pregnant women take anti-malarials

Community group:
Rural women who have had at least one pregnancy

Information community group needs:
- Serious complications or diseases can develop during pregnancy, even if there are no obvious signs. Regular antenatal care can detect these problems
- Drugs given during antenatal care such as anti-malarials can help to ensure the good health of the mother and her baby
- Important information is given during antenatal care about what women can do to stay healthy during pregnancy and after delivery

Actions they need to take:
- A woman needs to go for her first antenatal visit as soon as she thinks she is pregnant
- A woman needs to make regular visits during pregnancy
- Women need to follow advice they are given during antenatal care, including advice about taking anti-malarials

Obstacle they may face:
- Women believe it is bad luck to go for antenatal care before the 5th or 6th month of pregnancy because the baby might be cursed if the mother "boasts" about her pregnancy before it is visible. **Suggestion**: Emphasise the "protective" benefits of antenatal care, and of anti-malarials provided
- Women, with their busy schedules, do not have the time to wait for antenatal care. **Suggestion**: Work with the health facilities to extend the hours that antenatal care is available, or make waiting time more useful and entertaining. Also, develop messages for husbands and other family members about helping women with their work so that they have time to go for antenatal care
- Women do not like being scolded and treated badly by nurses and midwives when they come for antenatal care. **Suggestion**: Provide training or arrange group discussion with nurses and midwives and discuss women's concerns and motivate health workers to treat women with respect if they want to encourage regular attendance

SAMPLE MESSAGES

- **During antenatal care pregnant women will receive anti-malarials that help to protect them and baby**
- **Women need to go regularly for antenatal care during their pregnancy to receive anti-malarials**

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7. Create Messages for Different Information Channels

Deciding on the content of the message is only half of the process of getting it to the community groups who need the information. You need to find the best way to reach the community groups: what channels are the best for reaching them. Choose channels that community groups use and trust the most and also those which are best suited to the message.

Let your baby sleep in peace - free from troublesome mosquitoes.
Always use a mosquito net

Creating Messages

Well designed messages have the following characteristics:

- Aimed at a specific group, based on research findings about which community group needs what information
- Focused on a problem, based on research findings, about what community groups think, do and believe about the problem
- Action-oriented to suggest solutions
- Simple and easy to understand
- Appropriate to the community groups and the problems, addressing the obstacles they face and suggesting practical ways to overcome these obstacles
- Attractive and interesting to get people's attention and encourage them to take action

Even if you are feeling better, take full treatment or malaria will come back

Choose Information Channels

The information channel is the means for getting the message to community groups. Each channel has strengths and weaknesses. Some rely on the visual and others on the verbal content. Therefore the message has to be tailored to the strengths of the channel you choose. You may need to use different channels for different messages.

Although you may want to focus your efforts and resources on an information channel that is most effective to reach a particular community group, it is important to use a variety of information channels. That way, people will get the message from different sources, and it is more likely to reach them and to be believed by them. When using different channels it is important that the messages are consistent.

Communication Channels

Print media

- Materials for reading:pamphlets, booklets and brochures
- Materials for display:posters, calendars, wall charts
- Materials for use with groups: flipcharts, flashcards
- Comics

These materials can be designed for literate and non-literate people. They can encourage people to take action, they can convey information quickly and effectively, and they can reach many people.

Folk media

- Theatre, plays, puppet shows, role plays, story-telling
- Songs, poems, drumming, and dance
- Messages printed on cloth

Folk media are especially useful for raising awareness, generating interest, and encouraging people to think about and discuss important topics.

Mass media

- Newspapers and magazines: feature or news stories, advertisements,
- Radio: announcements, advertisements, dramas
- Television: advertisements, features or news stories, dramas

These media are useful for raising awareness, reaching many people at the same time and conveying simple messages.

Visual electronic media

- Video
- Film
- Slide shows

These are usually used with groups. They can increase the interest of people in certain topics, convey messages in a memorable and dramatic way, show how to do certain things.

Special events

- Competitions, contests, and debates
- Parades, fairs, and rallies
- Public awareness days

These can raise awareness, mobilise groups and share information while entertaining people.

Personal communication and counselling

These are contact information channels where health workers share ideas with community groups directly. These methods support other information channels by answering questions, correcting misunderstandings and reassuring people.

Select a Package of Messages and Information Channels

In order to decide on a combination of messages and information channels consider:

- the different community groups you want to reach, how many people in each group you want to reach, and the best channels to reach them;
- the different messages you need to convey;
- the information channels community groups use the most often and trust the most.

8. Pretest Messages

You need to test out the messages you have drafted in the medium you want to use to find out if they are appropriate. You need to test the ideas with representatives of community groups before you reproduce them in large numbers. Pretesting is essential to avoid costly mistakes. Pretesting will tell you whether the messages are:

- Understandable
- Culturally acceptable and appropriate
- Relevant to the community group(s)

How to Pretest

Pretesting is usually done through in-depth interviews and focus group discussions. These methods help to find out what community groups think and feel about the messages and the medium in which they are delivered. During pretesting you can find out:

Content of the messages: Do people understand the message? Is it accurate?

How the messages are presented: Do people like the tone of the words or the style of pictures? Do they recognise and identify with the people, objects or situations shown?

9. Produce and Distribute the Materials

Production and distribution of materials are critical aspects of a communication programme.

Production

Production will depend on the channel and media you choose. Production requires special skills and equipment and it may be useful to contract another organisation to do this. There are many processes and methods of production which are not covered in these Guidelines.

Production costs can be high so test your materials because correcting mistakes during or after production can be very costly. Estimate your requirements for each item as accurately as possible because in many cases reproducing the same items again can increase the costs.

Distribution

Distribution is the key to ensuring that all the investment in developing and producing materials reaches the community groups they are intended for.

Print media

Posters, wall charts, and other display materials need to be placed where they will reach the greatest number of people. Materials for use with groups, such as flipcharts or flashcards, can be used at health clinics, women's clubs, youth clubs or schools. Booklets and pamphlets can be distributed at health facilities, through shops or used during counselling.

Folk media

Special events can be organised especially at markets or festivals where the community gathers.

Mass media

Radio or TV announcements, advertisements, dramas should be broadcast when the community groups you want to reach are most likely to be listening or watching. Print newspaper advertisements, features or stories in issues and place them on pages and on days that your community groups are most likely to read.

Visual electronic media

Films, videos and slide shows could be shown during special organised events or during markets or festivals.

Special events

Involve the community in planning and organising rallies, parades or contests to increase their participation and announce them well in advance.

10. Coordinate your communication programme with other health and development services

Find out about activities of other health and development programmes and services and how they link up with what you are planning to do. Identify areas for coordination and share your plans with others. Malaria control efforts will require working together with many other sectors and with all health programmes in your area.

11. Evaluate the effect of your messages

Using the baseline data (step 3) for comparison, check the extent to which community groups are carrying out the new health behaviour(s). Find out why some members or groups are not carrying them out.

A formal evaluation looks at the strengths and weaknesses of different activities in the programme and at what happened as a result. Evaluation methods include: a review of written records, interviews with the staff, in-depth interviews with members of community groups, group discussion, observation of the community groups, and surveys to see whether people's knowledge, attitudes, and behaviour have changed because of the campaign.

12. Repeat and adjust the messages at intervals

Modify and revise your materials and your activities based on your experiences and the evaluation. Develop a new schedule and plan for conducting your communication programme based on your evaluation.

Test your messages with representatives of community groups

Resource 3: Checklist
Developing and Sharing Messages

1. State clearly what you are trying to promote or actions you want people to take

Ideas/actions

2. Identify whom in the population you want to reach

Idea/action	Group(s)

3. Identify existing knowledge, beliefs and behaviour of community groups

(Developing a baseline to assess the impact of your messages)

Community Group(s)	Existing knowledge, beliefs and behaviour(s)

4. List sources of information about health of community groups

Community Groups	Sources of information

5. Select the channels and media which are most capable of reaching community groups

Community Groups	Communication channels

6. Decide on the content of the messages

Topic:

Community group:

Information Community group needs:

Actions they should take:

Obstacles they may face

SAMPLE MESSAGES

7. Create messages for different channels

Message(s)	Information Channel(s)

8. Pretest

a. Design messages and test whether they are appropriate

Pretest your messages with groups and people they are intended for. Find out whether your messages can be understood, are culturally appropriate, practical, relevant and technically correct. Use the following worksheet to record and compare pretesting results of various messages.

Messages	Easy to understand	Right for the culture	Practical & Relevant	Technically correct	**Total**
e.g. Use mosquito nets at night	*3*	*1*	*2*	*2*	***12***

Scoring: ***0=definitely no 1=not sure 2=somewhat 3=yes, definitely***

Multiply your scores in each row for the total column

Based on the scores of your messages select ones that score the highest. At the same time, you need to strengthen the aspects of other messages that are weak.

b. Develop and test communication materials

You should also test your communication materials with representatives of the community groups that they are designed for. Once again you need to find out whether your materials can be understood, are culturally appropriate, practical, relevant and technically correct.

Materials	Easy to understand	Right for the culture	Practical & Relevant	Technically correct	**Total**
E.g. A booklet on Using Mosquito nets	*2*	*1*	*2*	*2*	***8***

Scoring: ***0=definitely no 1=not sure 2=somewhat 3=yes, definitely***

Multiply your scores in each row for the total column

Based on the scores of your materials, reproduce and use ones that score an acceptably high level. At the same time, improve aspects that are weak in other materials.

9. Produce and Distribute the Materials

a. Production

Material(s)	Quantity required	Complete by when	Production by whom

b. Distribution

Material(s)	Distribution points/places	Distributed by

10. Coordinate your communication programme with other health and development services

Your planned activities	Activities of other health & development services	Areas for coordination

11. Evaluate the effect of your messages

Community Group(s)	Knowledge, beliefs and behaviour(s) after your messages

Using the baseline data (step 3) for comparison, check the extent to which community groups are carrying out new health behaviour(s)/actions. Find out why some members or groups are not carrying them out.

12. Repeat and adjust the message at intervals

Messages/materials	Modifications needed	New schedule and plans

Where appropriate, ask pregnant women to take anti-malarial tablets throughout pregnancy

Sample Messages

a. Protect young children from mosquito bites, especially at night

Malaria is spread by the bite of a mosquito. Care should be taken to keep mosquitoes away from young children. There are several ways of doing this:-

- By using protection methods:
  - mosquito nets (preferably treated with an insecticide)
  - fumigants such as mosquito coils
  - screens on house windows and doors
  - killing mosquitoes in the house

All members of the community should be protected against mosquito bites. A mosquito can take malaria from an infected person and pass it on to someone who is uninfected.

b. Destroy mosquito larvae and prevent mosquitoes from breeding

- Different types of mosquitoes breed in different places. Some breed wherever stagnant water can collect: in ponds, swamps, pools, pits, drains. Other types may breed along the edges of streams or even in water collected in hoof prints. Filling in or draining places where water collects, or spreading oil on ponds and swamps, can remove some mosquito larvae. Where mosquitoes breed will vary from area to area. Help the community to understand the link between the larvae and the adult mosquito. Find out where they breed in your area and choose the appropriate action with the community.
- Regular clean-ups of the neighbourhood help to reduce mosquito breeding in some areas.

c. Wherever national policy recommends it, ask pregnant women to take anti-malarial tablets throughout pregnancy

- Pregnant women are much more likely to suffer from malaria. The disease is also more dangerous during pregnancy. It can lead to severe anaemia ('weak blood'), and may cause a miscarriage, premature birth or still-birth. Babies born to women with malaria are also very likely to be small, weak, and vulnerable to infections.
- Pregnant women can protect themselves against malaria by taking

anti-malarial tablets regularly throughout pregnancy. In some places they may be called 'Sunday tablets' to help pregnant women remember to take them weekly or 'breakfast tablets' to remember to take them daily.

- The right anti-malarial tablets can be obtained from a clinic or trained health provider. NOT all anti-malarials are safe to take during pregnancy.

d. Wherever malaria is common, ask parents to take the child who has fever to a health provider. Give the child a full course of an anti-malarial drug if malaria could be the cause.

- A child with a fever, believed to be caused by malaria, needs a course of anti-malarial tablets (give young babies anti-malarial syrup).
- A child needs the full course of treatment, even if the fever disappears rapidly.

Anyone with malaria needs complete treatment!!

e. A child with a fever should be kept cool but not cold by:

- Giving a temperature-reducing medicine (e.g. paracetamol).
- Sponging or bathing with cool (not cold) water.
- Not covering with too many clothes or blankets, and keeping in a well ventilated area.

f. A child recovering from malaria needs plenty of liquids and food.

- Malaria burns up energy and the child loses a lot of liquid through sweating. Give food and drink to the child as soon as the child can take them. Plenty of food and liquid will help to prevent malnutrition and dehydration.

Adapted from *Facts for Life: A Communication Challenge, UNICEF*

A child with fever should be taken to a health provider

A child recovering from malaria needs plenty of liquids and food

Social Marketing of Insecticide-treated mosquito nets for Malaria Control Programmes*

Social marketing is another approach to communication that has been successfully used in many public health programmes. This section presents the social marketing of mosquito nets as an example. The social marketing process can also be useful for other products for malaria control programmes such as drugs for treatment.

What is Social Marketing?

Social marketing is the use of commercial marketing methods to create a demand for a socially relevant product or service and a systematic approach to assess the demand and the means to satisfy it. In public health programmes this could include adoption of health-promoting behaviours such as enhanced use of services, the trial and continued use of a product, and the improvement of household or community practices.

In social marketing programmes the consumers' perspectives, preferences and behaviours form the basis for promoting better practices. Social marketing techniques can lead to innovations in the design of other programme components that may be involved in the production or delivery of a product or service. To be successful, the social marketing process requires participation of the target group, and of groups that influence them, in formulating and testing products, programme strategies, activities, and specific messages and materials. Social marketing is a systematic strategy where acceptable concepts, behaviours, or products, and how to promote, distribute and price them for the market are defined.

All social marketing programmes build up from the basic programme objectives. In the case of insecticide-treated mosquito nets, the objectives would include:

1. to have every sleeping place in the community covered with a treated mosquito net;
2. to have family members using the nets regularly and properly;
3. to have the community re-treating the bednets at least once or twice a year.

As a planner for promoting treated mosquito nets you have to make technical decisions related to programme costs, management, and effectiveness. You will also have to make marketing decisions because they represent the interplay between the product or idea and how attractive or acceptable the product is to the consumers, i.e. how likely the target group is to acquire, use and re-treat the mosquito net. The four main decisions in a social marketing programme are described on the next three pages.

* This section is based on contributions by Marcia Griffiths, Manoff Group including: Griffiths, M. & Favin, M. *"Social marketing of insecticide-treated bednets for malaria control programs,"* Manoff Group and Griffiths, M. *"Social Marketing: Achieving changes in nutrition behavior:from household practices to national policies"*, Manoff Group

Decision 1 The Product

Form of the Product

There are two aspects to the product: the mosquito net itself and the insecticide for impregnation or re-impregnation. The first steps you need to take are to find out the patterns of current use of bednets in your area:

- What types of nets are available?
- Which nets do people prefer and use most?
  - what size, colour or shape?
  - what material?
- Are any nets produced locally?

Cost of the Product

For the mosquito nets to be successfully marketed you need to know what is the cost to a family of such a purchase.

- How much do nets cost in your area? How much would the treatment of nets for one year cost?
- How much will people be willing to pay for a net or for its regular treatment?
- Are they easily available or what would be the cost to travel to a market where they are available?
- How does the cost of a net compare with what the family may spend on other items to protect themselves from malaria?
- How does this cost compare with what a family may spend on treatment of malaria?
- How does this compare with the family budget on non-food items?
- At what times of year do families have cash for non-food items?

This information may tell you something about how much people may be willing or able to pay for mosquito nets or their treatment. A proper test market may provide a better picture of what price people are really willing and able to pay once people are aware of the benefits of nets or treated mosquito nets. Only after a test market you can decide whether the nets should be donated, subsidised or paid for over time.

Decision 2 The Market

At the beginning of your programme you should decide on the scope of your programme.

- Will it cover the entire area or only high risk areas?
- Decide on the phasing of your efforts during the year(s) to plan whether a continuous effort is to be made or a concentrated effort during a particular season.
- Decide on the focus within a community: high risk individuals/families or everyone?

To define the scope of the market you also need to know:

- The epidemiology of malaria in your area.
- The status of the population, in terms of:
  - their current use of mosquito nets and
  - their perception of the problems mosquitoes cause

- How many people use each net?
- Who uses the nets at home?
- How are nets used? For individuals sleeping separately or as families or sub-families?

Where the nuisance of mosquitoes is unbearable the use of nets by people may be high and a programme for treating them may be able to reach everyone from the start. Where nets are not so much in use or not so well accepted, the demand for them can grow with the number of people who become convinced to use them. In such situations high risk areas should be targeted first and mosquito nets could be promoted for children and pregnant women who are the most vulnerable.

Mosquito net programmes will not be effective and will not be sustained unless:

- Health workers are motivated to promote nets.
- Health workers are capable of carrying out their roles.
- Opinion leaders and policy-makers are informed and convinced about the advantages of mosquito nets.

Training and educating health workers, opinion leaders, and policy-makers are likely to form part of any social marketing effort. These "sales agents" are an important part of the market.

Decision 3 The Delivery Strategy

How the product will reach people is the most important part of a social marketing strategy. Without access to or availability of the product or service your objectives cannot be achieved. In the case of mosquito nets, these should be easily available to those who have been convinced of their usefulness.

You need to find out:

- how long nets last;
- or how often a family replaces its net(s).

This would give you some idea of how many nets over time may be needed in your area. You also need to work out:

- the level of service you have to provide for treating mosquito nets every six months.

This service needs to be made easily available and accessible to families in your area. Therefore identify the distribution points and work out the frequency with which the service needs to be provided.

The major decisions you need to make related to delivery systems are whether to use public sector delivery system, private sector outlets, or a combination of the two, and the degree to which public sector delivery takes a vertical or integrated approach.

Experience from some programmes has shown that a combination of private sector efforts (small scale production units, artisans or more commercial units) combined with public sector efforts using the existing primary health care infrastructure is likely to be the most effective way mosquito nets can be delivered and treated. However, it is possible that the entire operation could be handled privately through commercial outlets to produce treated mosquito nets and establish the service for re-treatment. You could also look into providing the product and service through a consumer's cooperative or a non-government organisation (NGO).

Many pilot efforts suggest that using the primary health care system can offer the best chance for success. It provides a "sales force" at the community level that can educate about the use of the mosquito net and assist with its treatment. Community participation is always important for the success of your efforts.

Decide for your area what delivery systems may be most appropriate and try and assess different options and their effectiveness.

Decision 4: Communication Strategy

The need for education of the population has been identified as the most significant factor in the level of practice in existing programmes. However, the need goes beyond just education of the population to effective communication to encourage desirable behaviours by the public, i.e. to seek or accept mosquito nets and their treatment and comply with instructions for using bednets and for treating them. Policy makers, media representatives, NGO officials, and the public also need to be convinced. Therefore, you need to take decisions with regard to three functions of communication:

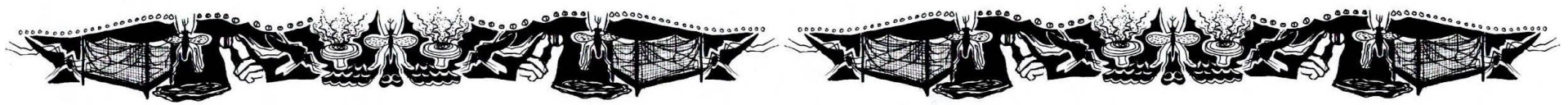
- advocacy for nets, whether at the policy level, with private sector manufacturers, or the community;
- programme support or public information on where to get nets, when and where they will be treated;
- behaviour change to address the regular and proper use of nets.

In a social marketing approach to communications, activities to achieve these objectives are based on formative research and testing of messages and behaviours with the target groups themselves. Research is designed to understand cultural, attitudinal, economic, and logistical resistances to carrying out the desirable behaviours and to give insights into a combination of programme actions (i.e., making the purchase of nets and services more convenient or the mosquito net more appealing) and messages that address these resistances.

Messages should be very carefully designed and tested so that they are interesting, believable, motivating, and practical to implement. They should convincingly show the importance and feasibility of the following key behaviours: regular and proper use of mosquito nets, re-treatment, washing of the net etc.

Well designed communication is creative, i.e. it does not merely accept a conventional approach to information. Based on formative research, an attractive "image" of the treated mosquito net is portrayed and supported in mass and interpersonal media. Messages contain effective appeals or motivational statements. What is it that is of greatest concern to families? Is it their health (disease prevention), being free of annoying pests while sleeping, added privacy? The treated net and the process for obtaining it should be positioned in the most appealing way possible and creatively marketed.

Social marketing could provide an appropriate framework and the tools to assess what it will take to achieve the proper use of insecticide-treated mosquito nets. Because all social marketing decisions regarding the product, market, delivery system and communication are made using sound consumer research prior to and throughout implementation, consumer need and technical requirements can be met. By satisfying these requirements, the programme will have a better chance of reaching the goal and being sustained at a community or family level.



Resource 5
ILLUSTRATIONS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J.Mehra


J.Mehra


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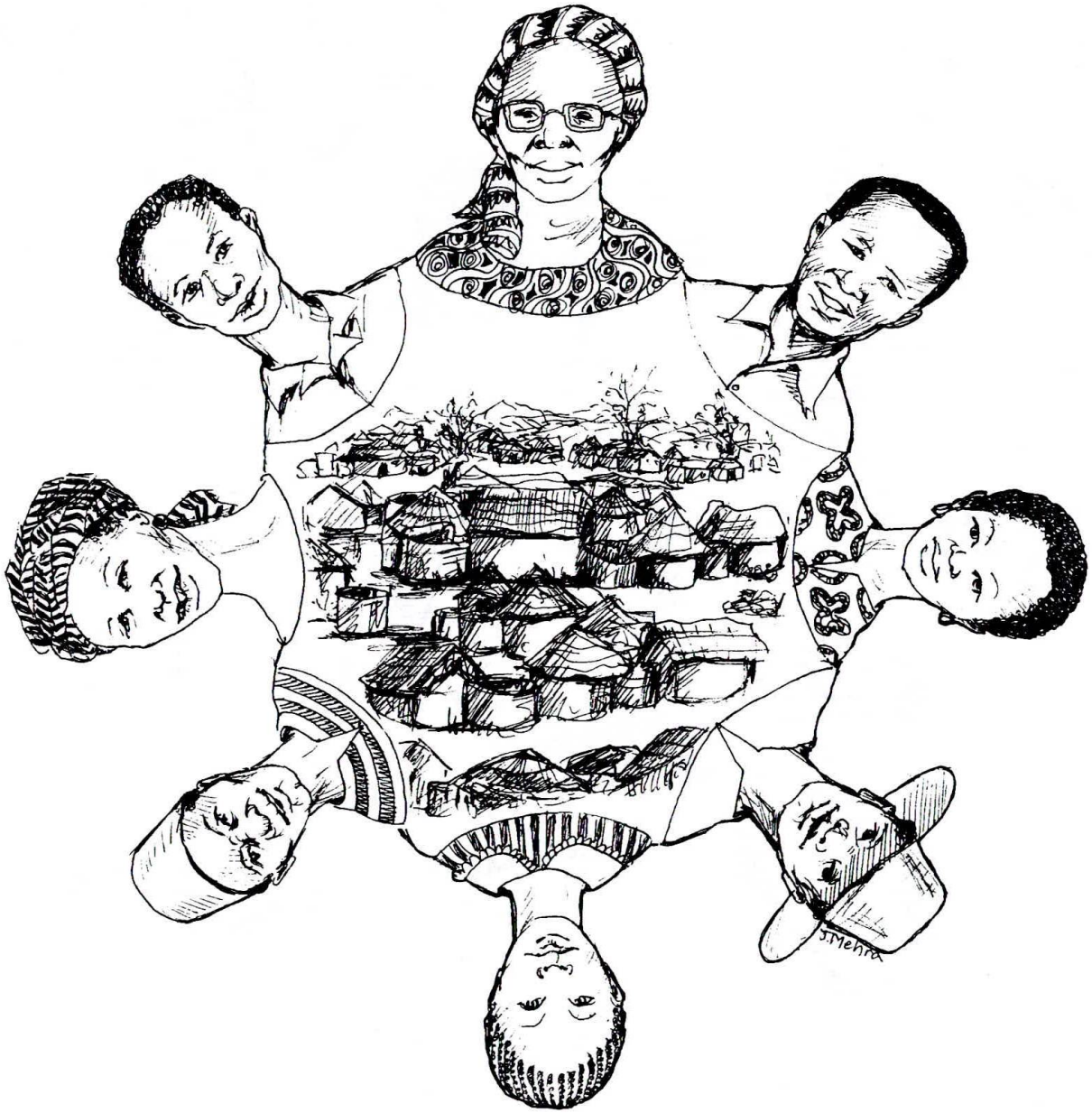


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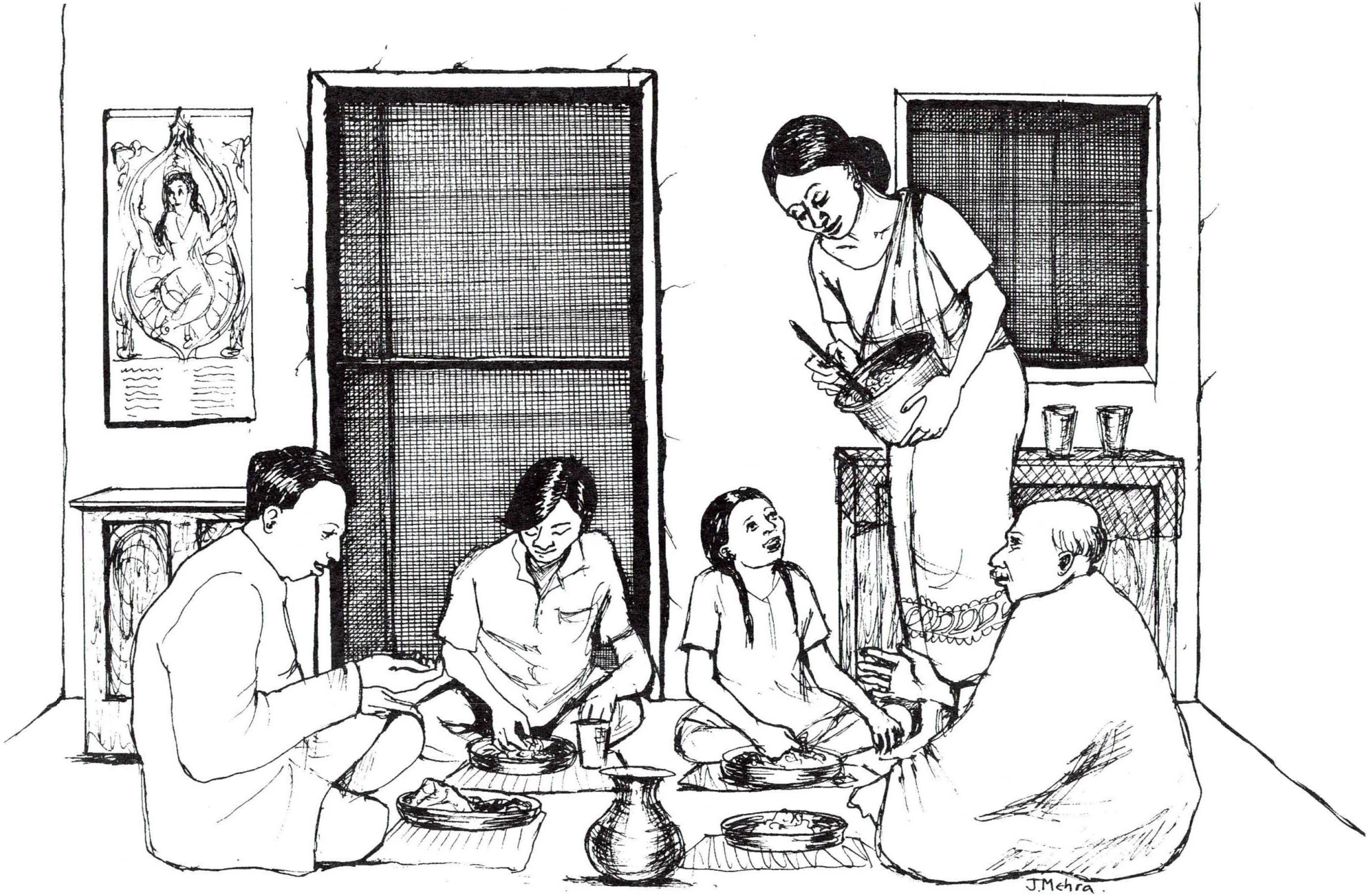
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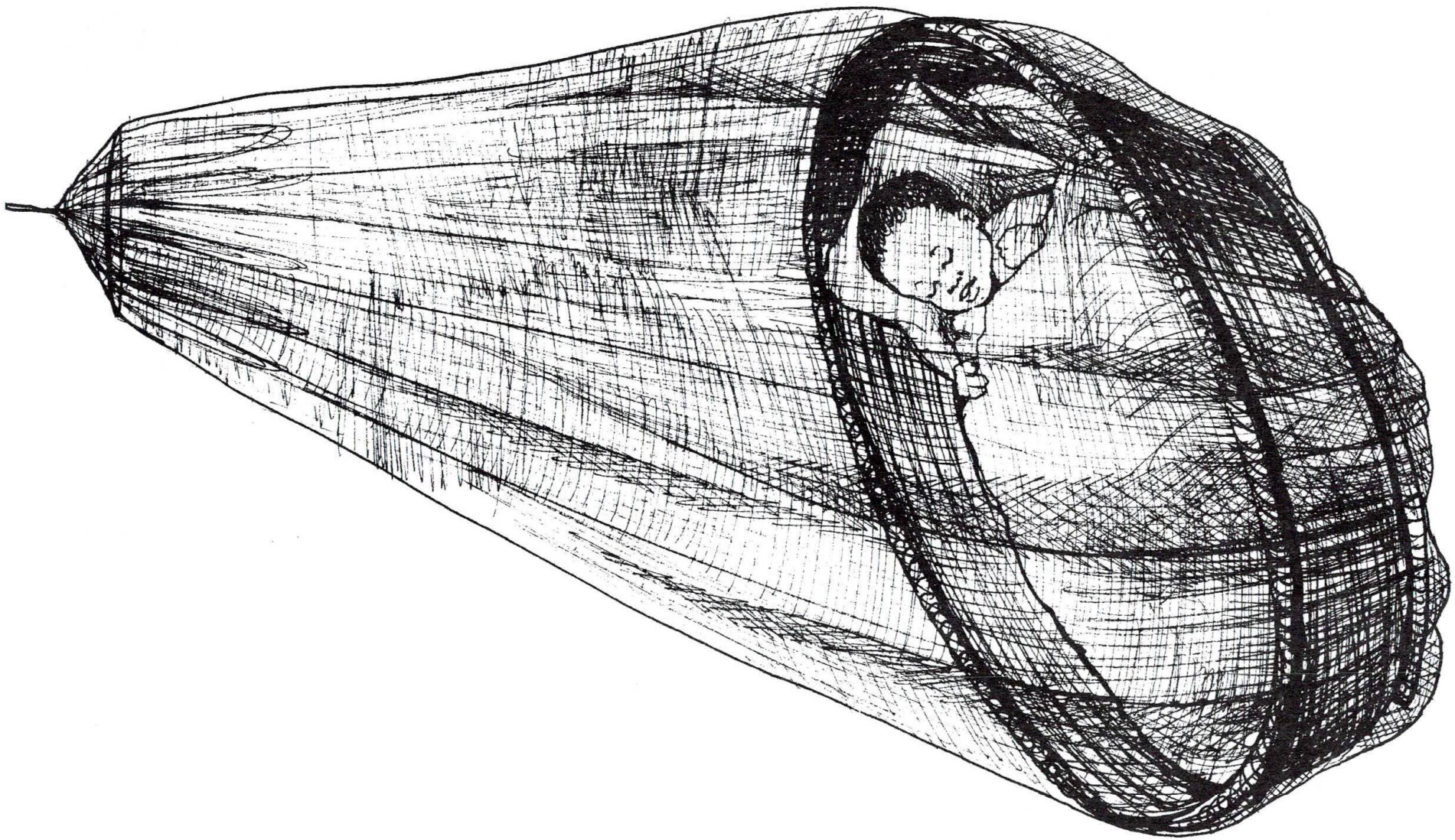


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