Integrating Indigenous and Modern Knowledge of Malaria among the Sabaot of Mount Elgon in Western Kenya

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Abstract

Some people assume there is an inevitable conflict between Western medicine and indigenous knowledge of the same. They assume that because of certain indigenous concepts of disease causation, treatment and prevention, indigenous peoples will reject certain Western services. The majority of Kenyan communities hold concepts of health and illness that are largely indigenous. This hinders effective communication between Western-trained healthcare providers and indigenous clients. The paper’s research indicates that Sabaot (from Mount Elgon in Kenya) believe in and use indigenous medicine yet use Western medicine too. The relationship between the two systems, indigenous and Western, is shown to be multifaceted—i.e., not just competitive, supplementary or complementary.

The paper attempts to bridge the gap between Western and indigenous systems by providing data on Sabaot indigenous concepts and practices concerned with malaria. The different types of remedial practices are described, including some of the negative elements of indigenous medicine. Indigenous and Western perspectives of causation, symptoms and prevention and the complementary predictive power of the two are illustrated for Sabaot and evaluated as an integrative and valuable means of combating malaria throughout Kenya. People in the field of medicine and healthcare should therefore use a holistic approach which is the basis of many indigenous knowledge systems in matters of health. This will create mutual respect, encourage local participation and build partnership for joint problem resolution. This results in improved community well-being and thus more readily sustainable socio-economic development.

The last part of the paper looks at the interaction between Western and indigenous health practices and some possible policy options that result. The paper as a whole sees itself as critical for policy makers, health providers and disseminators of health information.

Key words-Kalenjin, Sabaot, malaria, indigenous, Western medicine, disease, causation, treatment, prevention
**Theoretical Context - Background**

Studies of many traditional communities in Kenya reveal a fundamental misunderstanding about the way folk health knowledge relates to Modern medicine. Most people assume there is an inevitable conflict between the two. It is assumed that because of certain folk concepts of disease causation, treatment and prevention, certain high technology services are rejected and therefore unsustainable. This paper indicates that people who believe in folk medicine use modern medicine. Furthermore, folk medicine in most cases complements modern medicine. The health seeking behaviour depends on many factors and the category to which person belongs (Kleinmann, 1978, Nyamwaya, 1987).

In both modern and traditional perspective, malaria is a biological entity determined by space and time. By space, we mean its occurrence in certain physical environments or locations and not in others, and by time, we mean its tendency to have high incidence immediately after the wet season (Abdullah, 1985).

A study of Sabaot perceptions of causation, treatment and prevention of malaria reveals a logical approach towards the general management of the disease and not conflict or confusion as indicated by modern biomedicine (Kleinmann, 1979). For instance, the Sabaot understand that certain insects ‘contaminate’ blood and water and can transmit fever to both people and animals. The Sabaot categorize malarial fever as caused by “lowland water” and therefore accept the modern treatment easily because they do not need to ask ‘why’ they are getting the symptoms.

Most of the Sabaot do not see modern biomedicine as superior or inferior to folk medicine, but rather their prior experiences with similar illnesses, the socio-cultural constraints and economic positions determine the selection of illness management regime (Romanucci-Ross, 1977). The socio-economic situations such as cost-sharing policies in
Kenya have affected the most vulnerable groups i.e. those who can not afford to pay for health services. Recent government health subsidies are yet to yield noticeable results.

Drug resistant malarial strains and the upsurge of malaria in the Kenya highlands are some of the problems that need more attention. Therefore this calls for more broad-based and sustainable global strategies to combat healthcare problems instead of dismissing folk knowledge and beliefs about malaria and other communicable diseases such as HIV/AIDS. Strategies need to take into account the specific needs and circumstances of different communities, their social, cultural and economic backgrounds, and what the people living in them actually believe about ill-health and how it should be treated.

The Study Area and Its People

This study of malaria from the Sabaot and other Kalenjin sub-groups perspective, started when the author got involved in an ODA-UK funded knowledge attitude and practice (KAP) survey in 1993 in the Trans-Nzoia District in western Kenya.

The Kalenjin cluster of which Sabaot are apart, are Southern Nilotics occupying the western Rift Valley, who share common language and socio-cultural traditions. They consist of eight sub-groups which are: Kipsigis, Sabaot, Pokoot, Marakwet, Nandi, Tugen, Keiyo and Terik (Kipkorir, 1971, 1973). The Kalenjins practice circumcision of boys and girls. Therefore they divide members into age-set systems. Descent is typically patriarchal. The Kalenjin are historically pastoralists with subsistence farming as their main occupation. Presently they practice both large scale and small scale farming. The forest dwelling Agiek sub-group in the Mau Complex depends on wild game, honey and fruits for subsistence.

The Sabaot live in the Mount Elgon and Trans-Nzoia Districts number about 170,000. Sabaot contacts with Western education and Christianity started about 70 years ago but the Sabaot have been ambivalent to both. While 60 percent claim to be Christians, mainly
nominal Protestants, the majority are still traditionalists. The author has also lived among the Sabaot and other Kalenjin communities where he collected first-hand data for the paper between 1994 and 1998.

The Sabaot conception of health and illness is largely indigenous and yet biomedicine is used widely where it is accessible and affordable. This brief study looks at claims made by most contemporary health workers that folk knowledge and concepts of malaria and other diseases are the main hindrance to sustainable health development. Several questions were asked in the course of research such as:

- What are the most common diseases in your community?
- What causes them?
- What are their symptoms?
- How do you treat and prevent them?
- Are these current or old explanations?

The study involved at least fifty (50) adult men and women aged between 15-70 years, the majority of whom were Sabaot. This involved ethnographic data collection using face-to-face interviews, simple open ended questionnaires, and participants’ observation. A literature review of published sources helped in the analysis.

**Colonial and Post-colonial History of Malaria Control in Kenya**

Malaria is one of the top five health problems in Kenya with at least 28 million Kenyans or 70 per cent of population at risk. It is one of the biggest challenges facing the country. It kills more people than any other communicable disease, and has a further impact on the national economy due to the massive medical costs and lost working capacity it causes. It is the leading cause of mortality and morbidity particularly among pregnant women and children.
under 5 years of age. It kills approximately 34,000 children below five every years accounting for an average of 94 children per day. Studies in Kenya suggest that between 20 - 25% of all deaths can be attributed to malaria. It accounts for 20 percent of all hospital admissions and between 30-50 percent of outpatients. Malaria cause severe anaemia in women with 1.5 million pregnant women being susceptible. In Kenya, under-five mortality is currently 115 per 1,000 live births up from 112 in 1998. Economically, it is estimated that disability due to malaria amongst adults accounts for a loss to the country’s economy of more than 170 million working hours per year (Snow, 1998, Daily Nation, 2008).

Malaria is endemic in over 40 districts and epidemic in 16 districts of the country. It is high in the low-lying zones of coastal region, western zone along Lake Victoria and along major rivers such as the Tana and Nzoia. The disease occurs in ‘epidemics’ in the Kenya highlands especially during the long rainy season. This is the situation despite government prevention and control measures.

The Public Health Act (PHA) of 1921 together with the Malaria Prevention Act (MPA) of 1929 provided the foundation for malaria control in Kenya (Abdullah, 1982, Mwenesi, 1993). During the colonial period, the health department was concerned with the welfare of white community (Vogel, 1974, Doyal, 1979). The white community was concentrated in urban areas where malaria control was focused. Mass prevention was not considered important.

Malaria control was started on a large scale after the Second World War. This involved mass chemotherapy and prophylaxis in the Nandi district. Insecticides and indoor spraying were used in Kericho in 1946 (Snow, 1998). Other preventive strategies included use of larvicides in town estates and industrial project sites. The use of fish to eat larvae and the draining of swamps are still common in rural areas where irrigation projects exist.
After independence in 1963, Kenya revised its malaria control strategy by use of public health personnel. Malaria control now involves all health services such as individual protection, vector control, and anti-plasmodial measures. Deaths due to malaria have dropped by almost half according to recent report from the Ministry of Health. In 1992, a *National Plan of Action for Malaria Control* was developed by the Ministry of Health (MoH) in consultation with local technical experts (MoH, 1992). The Plan of Action identified three priority districts regarded as epidemic prone” based upon historical evidence and epidemics in 1988, 1989 and 1990. These districts were Uasin Gishu, Nandi and Kericho. These limited areas were first shown in a “malaria map” developed by the Division of Vector-Borne Diseases in 1983. This map was an extension of a map developed by Nelson and Butler in the 1950’s and later modified by Roberts in the 1960’s. The map was attached to the *National Plan of Action* in 1992. By 1995 during the development of the *National Guidelines for Diagnosis, Treatment and Prevention of Malaria for Health Workers* (MoH, 1998). The definition of at-risk epidemic districts had changed and included Kisii, Nyamira, Nandi, Kericho, Bomet, Trans Mara, Kakamega, West Pokot, Uasin Gishu, Mount Elgon, Trans Nzoia and Gucha. The guidelines also allude to the variable malarial conditions in the semi-arid areas of Turkana and Narok. Following the El Niño related epidemics in the North-Eastern Province (NEP) during 1997/98, the subsequent development of the *National Guidelines for Malaria Epidemic Preparedness and Response in Kenya* included the districts in NEP (MoH, 1999).

According to experts, before the campaign for mass distribution of treated bed nets, malaria was killing 92 children aged five and below daily. The annual death toll of 34,000 children has been reduced by 44 per cent to about 16,000 in 2006. In addition, the number of hospital admissions due to malaria has reduced by 50 per cent. This decline has been attributed to Rapid Diagnostic Test (RDT) on children, increased distribution of ITN or
Insecticide Treated Nets, and access to LLINs or Long Lasting Insecticides Nets. VOICES for Malaria project is another advocacy programme started in 2006 to serve as a call to action for malaria-free Kenya.

Kenya NGOs Alliance Against Malaria (KENAAM) in collaboration with the Division of Malaria Control (Ministry of Health) and local non-governmental organizations have made attempts to incorporate malaria treatment, control and prevention in a number of Community-Based Health (CBH) projects and activities. Research findings from the World Health Organisation (WHO) show that for every 1,000 treated nets used, seven children deaths are averted. The US government launched the Presidents Malaria Initiative (PMI) in 2005 to fight malaria in 15 African countries. In 2006 alone, the Ministry of Health in collaboration with CBHs distributed 3.4 million bed nets in malaria prone areas in a campaign dubbed “Komeshu malaria, Okoa maisha” (Stop malaria, Save life). Another two million mosquito nets are given to pregnant women and children every year through health facilities. These require at least 4,000 health workers annually to boost service delivery and distribution of nets.

Studies indicate that most Kenyan people have not adopted modern malaria control measures. This may be because the majority of them do not share the same concepts of causation of malaria as promoted by Western-trained health workers and hence are reluctant to effect measures, which are seen to contradict their notions of malaria causation and control (Nyamwaya, 1982). Koo (1987) looked at the same issue in Hong Kong and said: “There’s is a tendency for ‘Western’ society to ignore traditional etiology at best and castigate it as ‘superstition’ at worst---- there is little regard to the cultural and environmental context in which disease causation, diagnosis and treatment takes place. Socio-cultural factors are only viewed as barriers to ‘proper’ treatment ---- . The negative attitude held by Western medication is causing negative attitudes and exacerbating existing health problem”. 
Traditional Concepts of Causation, Treatment and Prevention

In areas where malaria is endemic, communities living in these zones have over the years developed appropriate concepts relating to malaria treatment and prevention. These concepts are based on traditional notions of health and disease and are derived from observations of the connection between environmental conditions, vectors and malaria.

The association made between environmental conditions, insects and malaria is not a one-to-one causal relationship. The relationship is more holistic with broad cause and effect (Ault, 1983). The Sabaot view the causation of any illness as dynamic and processual phenomena embracing various angles of reality. One and the same boor ‘illness’ may be perceived as being caused by natural physio-chemical processes, as well as social and spiritual forces. The Sabaot notions of disease causality can be put in two dimensions of ‘how’ and ‘why’. However, there is not enough evidence to prove that traditionally, the Sabaot connected yeeseet ‘malaria’ with ng’ung’uyeenik ‘mosquitoes’ although historically, the Sabaot in lowland area saw insect bites as causing disease in some cases (Kipkorir, 1978, Weatherby, 1957).

The present control and prevention of malaria in Kenya is purely modern requiring trained personnel. The traditional control methods depend on specific folk knowledge and skills shared by adults in respective indigenous communities as in the case of the Sabaot.

Malaria is a popular term in Kenya and has replaced local biocultural terms previously used to denote ‘fever’ or any conditions with symptoms which correspond more to the biomedical-clinical definition of the disease. Presently malaria is a term used to refer to any condition which includes fever, headache, joint pains, vomiting, abdominal upsets and general malaise. Any simple sickness with fever may mean malaria to some people. Yeeseet
in Sabaot is likened to *tung’ung’uyek* or ‘common disease’ which is understood or normally not a serious disease.

**Causation of Malaria**

*Yeeseet* is known to be a *sooy* ‘lowland’ illness seen to be caused by seasonal weather changes and transmitted through foods and insect bites. The notion of an insect vector is not as common as is in modern medicine. *Yeeseet*, is seen to be some kind of *tankuusyeet* ‘illness’ where substances enters human body from many sources in the environment and is largely natural and inevitable. When *yeeseet* becomes severe and cerebral in nature, the Sabaot regard its cause as *ooy* or spiritual. This is when other forces such as *baneet* ‘sorcery’ and *ng’ooki* ‘curse’ are involved in the process of the disease treatment and prevention. Happenings of this kind (socio-spiritual) demand deeper explanation of some episodes of the disease. The Sabaot do not emphasize on causation a lot, but their concern is with transmission, and how the disease causing substances move from the physical environment into the affected individual.

**Table 1: Bio-cultural signs and symptoms of malaria**

<table>
<thead>
<tr>
<th>Indigenous expression</th>
<th>Clinical equivalent</th>
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<tbody>
<tr>
<td>cold rushing into my body</td>
<td>chills</td>
</tr>
<tr>
<td>body can tremble and shake</td>
<td>convulsion</td>
</tr>
<tr>
<td>head is cutting too much</td>
<td>severe headache</td>
</tr>
<tr>
<td>body hot all over</td>
<td>fever</td>
</tr>
<tr>
<td>body feels tired</td>
<td>body weakness</td>
</tr>
<tr>
<td>all my knees, hands and body hurt</td>
<td>joint pains</td>
</tr>
<tr>
<td>body feeling too hot</td>
<td>excessive sweating</td>
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</table>
The Sabaot see malaria as dependant on the physical environment and because of this, there are traditions which dictate where human settlements should be situated. Generally, all the Kalenjin groups have three spatially distinct ecological zonings; the sooy ‘lowland’ zone, the lakam ‘escarpment’ zone and the masop ‘highland’ area. Traditionally, human settlements are located in the lakam zone though the areas are usually on steep hills or mountain sides. Lakam, a mid-altitude zone provides protection from malaria because the people say, karoomech beeko ako yoomeet ‘water and air is good’. The Sabaot have traditionally practiced transhumance where animal movements correspond with seasonal changes. For many decades, the masop has been used for cattle herding in wet season while the low-lying sooy or keew ‘plains’ has been used during dry season to avoid yeeseet fever in people and animals as well. Similar practice takes place among the Nandi, Marakwet and Pokoot settlements. However, the land settlement policy by the government has restricted such movements.

Insect bites are believed to cause a certain kind of malaria. For instance ng’asateet, a type of malaria where the spleen swells is thought to be caused by insect bites among the sooy dwelling Sabaot. However, they do not make an association between mosquitoes per se and malaria.
The Sabaot say that sweet foods if consumed excessively cause yeeseet. The consumption of moobek ‘sugarcane’, kaasubeente ‘hybrid’ maize, maize stalks, and kumnyeteet ‘honey’ can lead to malaria. Yeeseet nye nyaalil ‘green malaria’ is associated with excessive intake of milk. When the types of food thought to cause yeeseet are looked at, it is clear that these foods are available in abundance during and after the iwoot ‘long rains’ in May, June and July when mosquitoes breed and are present. Thus the belief seems to go with observations which correspond with an abundance of these foods and existence of many mosquitoes after the rains.

The roobta ‘rain’ is also believed to “come with” yeeseet. The Sabaot believe that when one is rained on, he is likely to get malarial fever. The mesewek ‘herdsmen’ who move to the lowland areas get malaria because they are not used to “turbid warm water”. This shows that malaria relates to water and rain.

Beeko ‘water’ and roobta are seen as causes of malaria. What is clear here is that people observe an increase in the incidence of malaria after the long rains and from other source of water used. This is a logical association in the context of mosquitoes breeding and the variations with seasons. Unlike other diseases, malaria seems to emanate from natural processes and especially the seasonal cycles. There are ‘malaria epidemics’ in the Kenya highlands for instance in the June and July long rain season.
Table 2 Types of malaria in Sabaot

<table>
<thead>
<tr>
<th>Type of malaria</th>
<th>Signs/symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Yeeseet nyee nyaliil (green</td>
<td>green vomit, occurs in May, June and July, associated with green vegetation,</td>
</tr>
<tr>
<td>malaria)</td>
<td>wet season when green vegetation sprout</td>
</tr>
<tr>
<td>B Yeeseet nyee arraa (Red-</td>
<td>red-brown vomit, comes during the onset of dry season (January February and</td>
</tr>
<tr>
<td>brown malaria)</td>
<td>December)</td>
</tr>
<tr>
<td>C Yeeseet nyee tooleelyoo (yellow</td>
<td>yellow vomit occurs when one eats green maize and sugar cane (September,</td>
</tr>
<tr>
<td>malaria)</td>
<td>October, November)</td>
</tr>
<tr>
<td>D Yeeseet nyee leel (white</td>
<td>white vomit, occurs after taking a lot of milk and to those who visit or stay</td>
</tr>
<tr>
<td>malaria)</td>
<td>in lowland zones. It is considered fatal and causes swelling of the body and</td>
</tr>
<tr>
<td></td>
<td>stomach</td>
</tr>
<tr>
<td>E Ng’asateet (swollen spleen)</td>
<td>pain in liver, spleen prickling of latter organ and affects children and one</td>
</tr>
<tr>
<td></td>
<td>is unable to run fast. This is associated with taking milk and mosquito bites</td>
</tr>
<tr>
<td></td>
<td>in lowland zones</td>
</tr>
</tbody>
</table>

Malaria may sometimes be seen to be promoted by other causal factors such as ooy spirits, and baneet sorcery. These factors are seen to result from the violation of norms, taboos and moral rules involving food, social behaviour and public conduct (Nyamwaya, 1982).

Treatment of Malaria

Biocultural diagnosis of malaria concentrates on symptoms and signs shown by the patient (body temperature, physical strength and waste products). At some levels, social and spiritual conditions are considered important depending on the condition of the patient. The naturally caused malaria is treated with tiikityeek ‘roots’ and saakityeek ‘herbal concoctions’
or materia-medica. The use of *cheebtiisyeek* ‘emetics’ and purgatives is common. The colour of *kaang’uung’iak* ‘vomit’ determines the severity of the malaria and therefore the treatment.

The emetics and purgatives rid the body of malaria substances. Without vomiting, malaria is likely to recur. The Sabaot enjoin in *koreet* eating of goat meat soup, mixed with malaria herbal concoctions and this gives strength. Patients are encouraged to take a lot of food after the purgatives.

**Table 3 Herbs used in treatment of malaria symptoms**

<table>
<thead>
<tr>
<th>Vernacular name</th>
<th>Botanical name</th>
<th>Parts used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeneetweet (purgative)</td>
<td><em>Cassia didymobotrya</em></td>
<td>roots</td>
</tr>
<tr>
<td>Cheebteekaanteet</td>
<td><em>Warbugia ugandensis</em></td>
<td>bark</td>
</tr>
<tr>
<td>Moob-waarwa (purgative)</td>
<td></td>
<td>leaves</td>
</tr>
<tr>
<td>Cheebtuyeet (emetic)</td>
<td><em>Salvadora passica</em></td>
<td>roots and bark</td>
</tr>
<tr>
<td>Seesweet</td>
<td><em>Melica azedirachta</em></td>
<td>roots</td>
</tr>
<tr>
<td>Kiseerweet</td>
<td></td>
<td>roots</td>
</tr>
<tr>
<td>Eeseenweet</td>
<td></td>
<td>roots</td>
</tr>
<tr>
<td>Cheebsikoryaanteet</td>
<td></td>
<td>roots</td>
</tr>
<tr>
<td>Cheebketuyaanteet</td>
<td></td>
<td>leaves</td>
</tr>
<tr>
<td>Kiptorayeet (purgative)</td>
<td></td>
<td>leaves</td>
</tr>
</tbody>
</table>

In the case malaria takes a serious situation of *bunmetyontiit* ‘convulsions’, a special *kariseet* ‘slaughtering’ for *koroseek* ‘purification’ and *saayeet* ‘prayers’ are performed in order to remove the socio spiritual causal factors. This mode of treatment is declining but herbal-treatment is still common.
High technology-based malaria treatment previously depended on anti-malaria drugs such as chloroquine, Fansidar and Metakelvin. Chloroquine was popular but the itching side-effects discouraged many users. The negative long term effects of the sulphur in Fansidar have led to a new regimen of sulphur-free Chinese drug called Duo-Cotecxin which is now widely used in Kenya. Duo-Cotecxin is one of the Artemisinin-based Combination Therapy (ACT) drugs highly recommended by WHO for treating malaria and is widely supplied in government and private hospitals. A full dose of Duo-Cotecxin costs about $5. The Ministry of Health (MOH) annually procures close to 12 million doses of the new Artemether-lumefantrine brand. However, UNICEF through the BAMAKO initiative showed that distribution of essential drugs including ACT can be made accessible to the rural communities. This requires that the ACTS are deregulated so that they can be sold over the counter in shops and can be dispensed through community health workers. The Sabaot prefer sintaaniit ‘injections’ because the pain after an injection is strongly believed to have more effect especially among the older generation. This helps explain why the Sabaot prefer bitter solutions from the herbal medicine used in home treatment. Drug dosage is another problem because the people either do not know the correct dosage or feel it is not appropriate. They sometimes share drugs or use leftovers thus creating resistance.

Another problem is a lot of malaria patients self-prescribe the common drugs and even add antibiotics to herbal solutions. Some young women take large dosage to induce abortions. This has promoted illegal abortions among adolescents and older women. The treatment of malaria may look inconsistent for western-trained health workers and is always blamed on ignorance and ‘backwardness’ of the community.

Prevention of Malaria

There is little documented information on folk systems of control and prevention. The Sabaot from their traditional practices seem to have consciously avoided and prevented
malaria though this never had an impact on the incidence and prevalence of malaria. However, the prevention of malaria is taken seriously by the Sabaot and determined their social cultural existence in their modern day settlements. For instance they have clear principles and practices relating to prevention. Almost invariably all mothers with young children mix *seenetweet* ‘Cassia sp.’ and *mtung’weet* ‘herb’ with a milk and water concoction and give it to their children to prevent diarrhoea and other illnesses. The prevention of malaria includes a routine use of emetics and purgatives strictly followed in *kaabuuntuoyeet* ritual.

The Sabaot three-tier settlement pattern as noted by Huntingford (1953:71, 91) can be summarised as follows:

- The *sooy* ‘lowland’ is an area for grazing animals during dry seasons or (daytime). People move into *sooy* from September to February and return to residence in rainy season. This is usually when insect vectors are not many. This practice has been there since time immemorial. Colonial land resettlements and administrative boundaries have curtailed this type of flexible transhumance that was highly adapted to healthy living.

- On the middle *marmarta* ‘escarpment’, people build their homes. This is the civic zone and centre for cultural activities such as politics, religion and jura-legal processes. The zoning protects the communities from frequent raids and attacks from other ethnic groups.

- The *Masop* ‘highland’ zone is used for grazing, for medicinal plants, wild game and honey. This zone was originally safe from malaria vectors.

The Sabaot in *soy* zone report the ‘smoking out’ of insects from residences. The *kimaliisyek* ‘flat-top’ rounded huts are low and mosquito-free for inhabitants. They also burn certain scented herbs and dry *buureesik* ‘manure’ whose pungent smells repel insects from cow-sheds and compounds. In homesteads, dry manure fire, is kept burning all night long as a
way of repelling mosquitoes and tsetse-flies. The frequent ng’uusyeet ‘clearing’ of stagnant water and cow-dung heaps from animal boma also help reduce the breeding vectors.

The use of chemoprophylaxis is not common; however individuals take broad spectrum prophylactic concoctions occasionally. The foods associated with malaria such as sugar, honey and milk have no taboos associated with them for purpose of malaria prevention. The use of treated mosquito nets is now commercialised and promoted in all rural communities.

**Discussion**

This study on malaria shows two knowledge systems relating to malaria prevention, control and treatment: the modern high-technology biomedicine and the traditional ethnomedical one based on folk knowledge. The two systems recognize that causation and transmission of malaria is tied to the environment and vector mosquito. Both systems see chemotherapy as a way of managing and controlling the system. There is also a shared belief in the role of rain and water in the transmission of malaria. Despite such convergence there has been disregard of the indigenous systems by western-trained experts with very little collaboration between the two systems.

The government land laws have forced people to live in fixed settlements where malaria is a major issue and have no choice of settlement. The introduction of agricultural schemes during the last three decades in some parts of Rift Valley, has never considered the control of malaria. Some of the people resettled in new schemes have been staying in areas where malaria is not endemic. They lack natural immunity and knowledge about malaria treatment and prevention. The malaria epidemic has high morbidity and mortality in the Kenya highlands.
Implications for the Practitioners

It is important to understand folk knowledge systems and invest resources in those systems in disease control. Traditional societies make fairly accurate assessments of their environment and its impact on disease patterns. This type of assessment differs from a modern evaluation but it shows that diseases are not merely occasional human and spiritual as postulated by metropolitan practitioners. Malaria control depends on environmental manipulation and less on chemoprophylaxis. Any technological changes affecting the environment affects the local people who should be involved in programme intervention from the beginning.

There should be a careful analysis of traditional perceptions of disease causation and prevention in order to develop sustainable educational programmes on prevention. People do not drop folk health knowledge overnight, “traditions die hard” and will be here for many decades. The extension workers whether in health, literacy or agriculture should be sensitive to folk concepts and should encourage and involve communities in implementing the disease control measures.

In Kenya, the Malaria Control Act, (MCA) had previously threatened people with legal action if they did not follow what they were told. Even new control measures are not understood by the local communities. The use of specialists with Western perspectives is another hindrance. The specialists should support community effort rather than ignoring it altogether.
Recommendations

- It is important to understand traditional concepts and practices relating to diseases and their control. This includes community perceptions of and response to environmental factors.

- The traditional concepts and practices should be the basis of any educational messages on disease control.

- Disease control principles should be simplified and explained in terms understandable to local communities so that they can practice them voluntarily.

- The obstacles to disease control should be considered as cultural, physical and economical rather than a community failure. There are many experts who use short-cuts in programme intervention and later putting blame on community.

- The interaction between patients and health workers will enhance the understanding of the local people’s perceptions of their health problems and therefore facilitate mutual understanding and sustainability.
References