Chapter 3

Gender Issue, Community Participation and Other Socio-Economic Comtext in the Study Area

3. GENDER ISSUE, COMMUNITY PARTICIPATION AND OTHER SOCIO-ECONOMIC COMTEXT IN THE STUDY AREA

3.1 GENDER ISSUE

3.1.1 Gender Roles and Responsibility

The typical roles and responsibilities of family members are summarised in Table 3.1. Although it is not comprehensive and the roles were not weighted, the list seems to reflect the type and amount of tasks assigned to women compared to men. Whereas men fully participate in preparing the farm, planting the crops, and providing water to livestock, women would do most of the responsibilities on a full-time basis. It is interesting to note that men never take part in fetching water or firewood, bathing the children, cleaning the house, washing clothes, or even in self-help activities.

Table 3.1 Typical Gender Roles at the Study Area

Activity /Roles	Responsibility			
	Men	Women	Children	
			Boy	Girl
Farm preparation	■	▒		
Crop planting		■	▒	
Crop weeding	▒	■	▒	
Crop harvesting	▒	■	▒	▒
Livestock herding	▒	■	▒	
Livestock watering	■	■	▒	
Livestock milking	▒	■	▒	
Food search/preparation	▒	■		▒
Feed children	▒	■		▒
Fetch water		■	▒	▒
Fetch firewood		■		▒
Fetch vegetable	▒	■		▒
Bath children		■		▒
Clean the house		■		▒
Wash clothes		■		▒
Circumcision ceremony	■	■		
Funerals	■	■		
Participation in self-help activities		■	youth	youth
Water point management	■	▒		
Cattle dip management	■			
Marriage ceremony	■	■		

Note:
■ Full participation
▒ Partial participation
▒ Alternative gender roles

Source: JICA Study Team: Focus Group Discussions in 5 districts

Sample annual activity calendars were developed for Gucha and Kericho Districts (Tables 3.2 and 3.3). Throughout the entire year, it seems women have enough responsibilities on their hands. Different vegetables and other crops could be grown during suitable months.

Table 3.2 Sample Annual Activity Calendar in Ogembo, Gucha District

Activities / Month	J	F	M	A	M	J	J	A	S	O	N	D
Planting maize, finger millet and sweet potato	■	■									■	■
Planting bean					■	■						
Preparation of "shamba"	■											■
Weeding		■	■		■	■						
Harvesting					■	■	■	■	■			

Sources: JICA Study Team/Focus Group Discussion at Ogembo
Note: Vegetables are grown throughout the year

Table 3.3 Crops Cultivated and Season in Kakeburu Village, Kericho District

Crops and Season	J	F	M	A	M	J	J	A	S	O	N	D
Maize	■	■	■	■	■	■						
Bean						■	■	■				
Rainy season					■	■	■	■				
Drought season									■	■	■	■

Sources: JICA Study Team/Interview to a women group leader in Kakeburu Village

To further understand the roles of women and men in the family, the activities of men and women on a typical day were studied (Table 3.4). While both man and woman start the day at six in the morning, the former would have time to rest in the afternoon and sleep at about seven in the evening. On the contrary, women would have no time to take a rest. They would retire only at about midnight after feeding the children, washing the utensils, and helping the children with their homework.

Table 3.4 Sample Activity for Man and Woman in Etono Village, Nyamira District

Major Activities			
Time	Woman	Time	Man
6:00	Wake Up, Milk cows, Prepare breakfast, Feed children, Sweep house	6:00	Wake Up
		7:00	Go to farm
8:00-12:00	Go to Farm (shamba)	11:00	Leave farm for home, Take shower
12:00-14:00	Prepare lunch, Feed children, Water livestock, If necessarily go to market (-17:00)	12:00	Take lunch
		13:00-14:00	Take rest
14:00-17:00	Collect & fetch firewood, water & vegetable, Wash clothes, Wash children	14:00-18:00	Take a leisure walk, Visit social places
17:00-19:00	Milk cows, Prepare supper	18:00-20:00	Take supper, Help with children's homework
19:00-21:00	Feed children, Wash utensils	21:00	Sleep
21:00-23:00	Help with children's homework		
24:00	Sleep		

Sources: JICA Study Team/Focus Group Discussion at Etono village
Note: Schedules may differ from season to season.

When it comes to patient care, women once more have a heavy yoke on their shoulders (Table 3.5). They take the sick family member to a health facility, administer medicines, and monitor the patient's progress. Since they keep the household purse, men are the ones who would pay the hospital bills. Often, they would also go to drugstores to buy medicines especially if the expenses were high.

Table 3.5 Patient Care Responsibility at a Household Level (Kericho)

Responsibility	Men	Women
Taking the sick to hospital/health facility		X
Buying medicine	X	
Prescription administration		X
Monitoring recovery progress	X	X

Note: X = involvement
Source: JICA Study Team/Focus Group Discussion (Kericho)

In traditional societies, gender roles and responsibilities were more or less clear-cut. These days, however, changes are noticeable. Table 3.1 lists some alternative gender roles that may be done by either men or women. Examples of these alternative roles are as follows: crop weeding, crop harvesting, livestock herding, livestock milking, food search/preparation, feeding the children, and fetching vegetables. The change in gender roles, albeit slow, could be attributed to better education, urbanisation, and

modernisation. The contribution of religion in discouraging stereotypical household division of labour was also reported in some group discussions.

Furthermore, the number of households that are headed by women is increasing. In the Study Area, women were the breadwinners of about 10-30% of the households. If we consider the families were husbands are working away from home, then the effective number of households headed by women would even be higher. Unfortunately, the literacy rates[1] of women heading these households seem to be lower than the average.

3.1.2 Decision-Making and Resource Control

At the household level, men usually make decisions on income, labour, and land. They decide on the crops to plant, the need to hire additional labour, the amount of seeds to purchase, and the amount of crops to sell. Women are not allowed to cut down trees without the expressed permission of their husbands. When permission to purchase property is granted, the property must be registered either under joint ownership or in the name of the husband only and never in the name of the wife only if the husband is alive. Only when the head of the family is not around that women do make decisions about allocating their household resources or seeking credit.

The tradition of men being granted the decision-making authority is deeply rooted among the Kipsigis and Gusii families, whose perception of women are that of lower status and is intended to be led by men. Such tradition of valuing boys over girls gave rise to fewer women having given better educational opportunities. Consequently, fewer women would have the qualifications to seek higher posts in government policy-making bodies or would have the confidence to make decisions at home.

Table 3.6 Women in Decision-Making Government Institutions (Kericho)

	Membership	
	Men	Women
District Development Committee (DDC)	67	10
District Executive Committee	47	3
Civic Positions	15	3

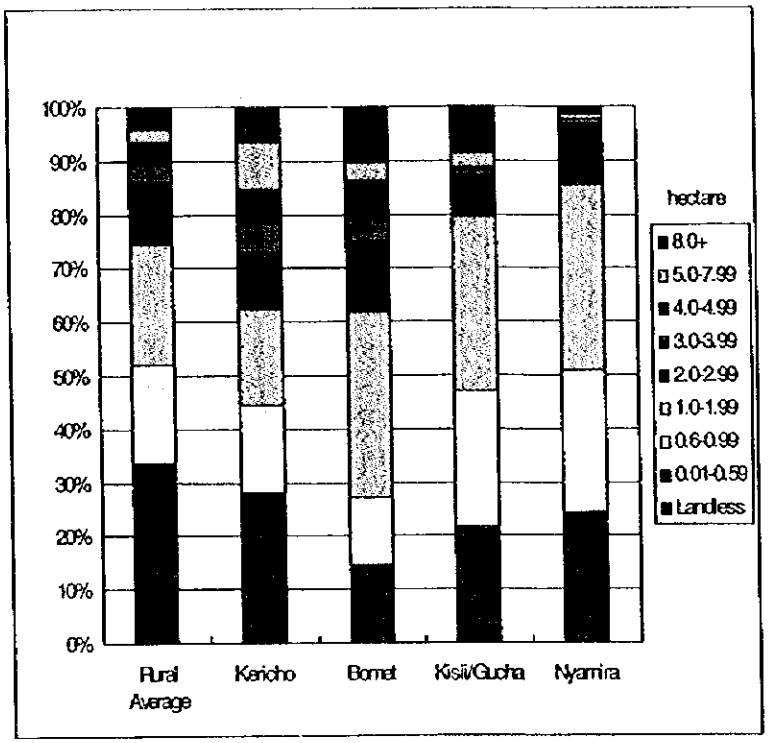
Source: District Development Office (Kericho)

[1] 29.7% in Kericho, 14.6% in Bomet, 27.8% in Kisii/Gucha and 47.8% in Nyamira

3.1.3 Landholding and Tenure

In the Study Area, most families depend on small pieces of land (Chart 3.1); about 60-70% of families owns less than 2 hectares of land. Because the most common means to acquire land is by inheritance (Table 3.7), then daughters and women are often in a disadvantaged position.

Chart 3.1 Landholding



Source: Welfare Monitoring Survey II, 1994

From 0.6 to 1.99 hectares of land holding is most common in the Study Area. Compared with other districts, Kericho has a bigger share of landless farmers (15.1%), who are mostly tea-pickers living in estates. For example, Brooke Bond, the biggest tea company in Kericho, employs 25,000 people.

Among the Kipsigis and Gusii, heads of households who happen to be the husbands traditionally owned land. When it comes to inheritance, daughters are not allowed to receive any land because it is assumed that their future husbands would have their own. Among the Gusii people, marriage is a prerequisite even for bachelors to receive their inheritance. When the property is partitioned, however, parents would leave a portion for their bachelors' future.

Table 3.7 Form of Land Acquisition

	Bomet	Kisii	Nyamira
Inherited	64%	74%	60%
Bought	28%	18%	24%
Leased	4%	4%	8%
Given by farmers	0%	-	-
Others	0%	4%*	-

Sources: JICA Study Team/Household Survey
* Farmer Co-operative
No data collected for Kericho and Gucha.

Traditionally, when a husband dies, his brother takes control over his property while carrying the responsibility of his wife and children. In case there is no brother, a man of good reputation is to be appointed as caretaker of his land until a son reaches maturity. In the Kipsigis community, when there is no son, land is passed on to a daughter who is not allowed to marry. She then becomes the custodian of the family land. She is allowed a male partner and the chance to have her own son.

The traditional practice of land inheritance among men only is changing. The government already passed the *Law of Succession* entitling both wives and daughters to share in the estate of their husbands and fathers. In addition, female participants of the focus group discussions pointed out that girls might start inheriting land in the future because there is an increasing number of women who do not marry, are more educated and westernised. They also mentioned that single mothers, who are quite common in the Study Area, would also need a piece of land for subsistence cultivation.

3.1.4 Educational Attainment/Literacy

Researches in international health have documented better health status for children of mothers with better education. In the Study Area, this might also be the case considering that mothers perform myriad responsibilities directly or indirectly related to health. As mentioned in the initial section, the roles of women range from food production and preparation, maintaining cleanliness of house and the children, to taking care of sick family members.

Unfortunately, the average literacy rate among adults in the Study Area is a lot higher for men (83.8%) than for women (65.8%). Women could hardly attend tertiary education (Table 3.8). Except for those in Nyamira, women in other districts would most likely complete only primary school. Only less than a third would have a chance to attend secondary education.

Table 3.8 Education Level of Household Survey Respondents (Mean Age = 35 years)

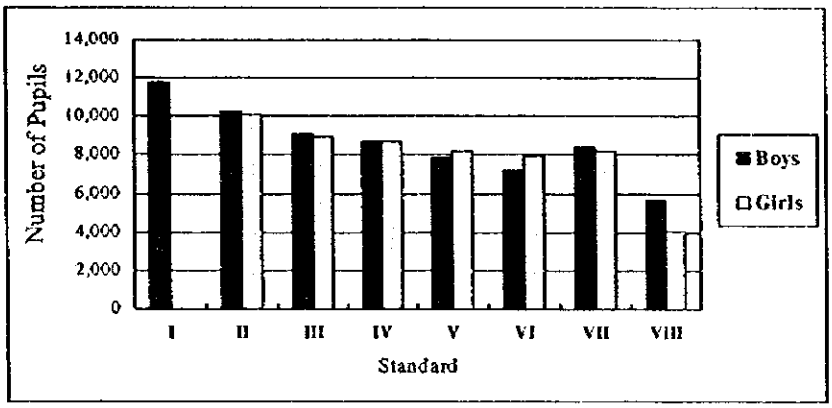
District	No School	Primary	Secondary	Tertiary (College)
Kericho	32%	38%	24%	0%
Bomet	28%	40%	32%	0%
Kisii	32%	40%	26%	2%
Gucha	20%	54%	26%	0%
Nyamira	12%	38%	48%	2%

Source: JICA Study Team/Household Survey

Would the trend regarding literacy rate change? Among the present generation children, it seems Kipsigis and Gusii girls would still have lesser opportunities than their brothers would when there would be financial constraints. In 1986, for example, the enrolment rates for boys in Nyanza and Rift Valley provinces were 100% whereas that for girls was only 96% in Nyanza and 98% in Rift Valley. There would also be more boys who have a chance to complete primary education than girls.[2] It is not surprising, therefore, for boys to achieve higher educational levels than girls do. The most likely reason for boys to drop out of school would be financial inability of parents. For girls, however, there are many more additional reasons such as early age marriage, circumcision, early pregnancy, and poor performance.

The number of pupils in primary schools decreases in higher grades (number of Standard 1 for girls is not certain). This can be seen clearly from the chart that shows a drastic decrease in the number of girls at Standard 8. Major contributory factors for girls' school dropout at upper primary classes and secondary schools are pregnancy, poverty, circumcision, early marriage, and poor school performance.

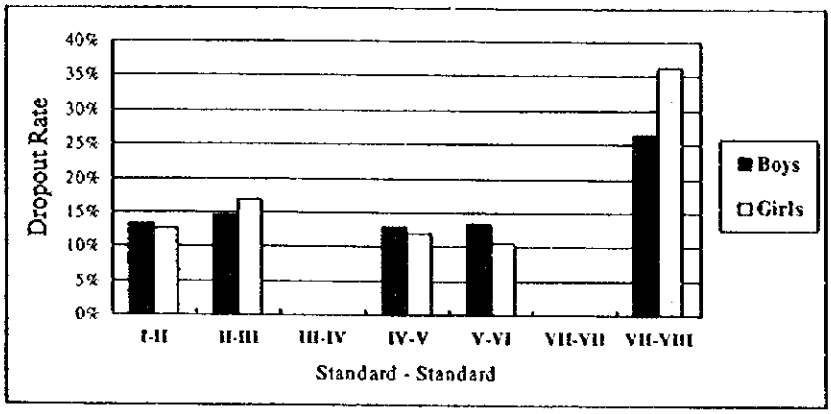
Chart 3.2 Primary School Attendance by Sex in Bomet District (1996)



Source: Bomet District Education Office

[2] 38% for boys in Nyanza and Rift Valley; 26.3% for girls in Nyanza and 29.2% for girls in Rift Valley in 1986

Chart 3.3 Primary School Dropout by Sex in Kisii/Gucha District (1995/6)



Source: Kisii District Education Office

Every grade has more than 10% dropout rate for both sexes. The number of dropout children increases rapidly between Standard 7 and 8. The dropout rates are 26.4% for boys and 36.2 % for girls, respectively. The practice of female circumcision has partly contributed to a high dropout rate for girls. For boys, the major reasons of dropout are poverty and the wish to achieve adulthood.

3.2 COMMUNITY PARTICIPATION

There are many community-based self-help groups in the Study Area such as youth groups, church-based groups and women's groups. There are local groups as well as international NGOs (Appendix 3). According to a survey in Nyamira in 1996, 70% of the population was involved group activities. In Kericho, there were 720 women's groups that were officially registered during the same year.

One of the active women's groups in the Study Area is the Maendeleo ya Wanawake Organisation (MYWO). It is well organised and has a membership nation-wide. It has a long history dating back to the Independence Period of Kenya. It has been involved in mobilising women to address legal and cultural barriers such as the issues of female circumcision and women's participation in development.

Like the MYWO, other women's groups have organised income-generating activities such as farming, livestock raising, trading, handicraft, and establishment of "posho" mill. Some groups administer rotational funds ("totor" among the Kipsigis) wherein participants contribute an agreed amount of money every two weeks, one month or other specified period. The total collection is given to a member at a time. The same system continues until all the members have received their collections. The cycle of collection begins anew. This arrangement is very popular. Usually, the money collected is used for household improvement and purchase of household

utensils. When the need arises, such contributions may also be used to pay for school fees and medical bills.

There are three issues on community participation in the Study Area that would merit further investigation.

One, some community-based groups have been involved successfully in promotive and preventive health activities. However, only a few have made significant contribution to raising the general standards of living particularly of those residing in remote villages.

Two, the motivation for mobilising participation of community seems to have been abused at times for personal interests. When Kenya gained independence, the government promoted the "harambee spirit" (meaning, pull resources together) as the catalyst for rural development, for improving the general welfare of the community. It has been reported, however, that some community members would use the "harambee" to collect financial contributions for personal needs or enrichment.

Three, although there are many women's groups in the Study Area, still their participation in community activities have been limited partly by their heavy workload at home. It seems ironic for women not to be involved in agricultural co-operatives even if they are the ones primarily responsible for their backyard farms ("shamba").

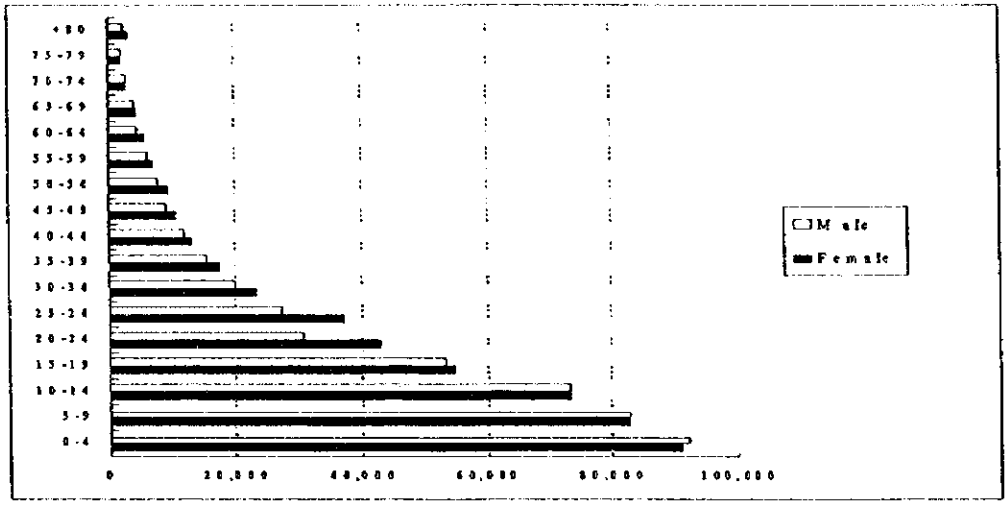
3.3 OTHER SOCIO-ECONOMIC CONTEXT OF HEALTH

3.3.1 Demographic Characteristics

Like most Sub-Saharan African countries, Kenya has a predominantly young population. About half of the population (48.9%) belong to 0-14 age group.[3] In the Study Area, this young age structure is also evident. For example, the 0-14 age cohort is estimated to be 53.5 % in Kisii and Gucha (Chart 3.4), 51.1% in Nyamira, 51.3% in Kericho, and 52.2% in Bomet.

[3] *Welfare Monitoring Survey II, 1994: Basic Report*, May 1996

Chart 3.4 Age and Sex Structure in Kisii (1996)



Source: Kisii District Development Plan 1997-2000

The population growth may continue in Kisii due to the large youth population. The ratio of all females to all males is higher than that for the Kenya. However, in the 0-14 age group, boys outnumber girls. The difference in the number of boy as against girls is more significant among children under the age of five years. In addition, malnutrition rate among girls is higher than among boys probably because traditional society values boys over girls. The number of males decreases drastically in the group of 20-24 because more boys are expected to go to school and seek jobs in urban.

The temporary out-migration can be attributed primarily to young males seeking jobs in big urban centres like Nairobi, Mombasa, Kisumu, and Nakuru. According to the result of the Household Survey conducted by the JICA Study, most parents expect their children to seek employment and economic advancement outside their communities. For example, in Kericho, 43% of the parents hope that their children would find a job in urban centres.

3.3.2 Social Context

a. Ethnicity and Religion

Kericho and Bomet are predominantly inhabited by the Kipsigis ethnic group whereas Kisii, Nyamira and Gucha by the Gusii excepting for the civil servants and businessmen who moved into the area for their jobs (Table 3.9). [4]

[4] According to the 1989 census, 83 % of the people in Kericho and 92% in Bomet are Kipsigis. On the other hand, 95% of the residents in Kisii (and Gucha) and 98% in Nyamira are Gusii. In Kericho, tea estates and commercial places attract people who are in search of jobs.

There are no-well defined relationship between religion and ethnicity. Nonetheless, the Kispsigis are mainly associated with the African Gospel Church, African Inland Church, and Roman Catholic Church. Most of the Gusiis belong to Seventh Day Adventists (SDA). With the advent of urbanisation, religion has become a matter of a personal choice rather than tribal.

Table 3.9 Major Socio-economic Indicators of the 5 Districts

District	Kericho	Bomet	Kisii	Gucha	Nyamira
Major Ethnicity	Kipsigis		Gusii		
Major Religions	African Gospel Church, African Inland Church, Catholic Church, Salvation Army, the Pentecostal Assembly of God		Seventh-Day Adventist, Catholic Church, the Pentecostal Assembly of God, the Lutheran Church, African Inland Church		
Employment					
1) Total Labour Force (thousand)	239	249	365		260
2) Agriculture	77%	N/A	73%		79%
3) Rural Self-employment			5%		
4) Urban Self-Employment	6%				0.5%
4) Public Sector			6%		
5) Private	12%		7%		15%
	3%		8%		4%
	2%				1%
Education (1996)					
1) No. of pupils in Primary School (thousand)	Boys: 69 Girls: 67	Boys: 69 Girls: 68	Boys: 112 Girls: 113		Boys: 65 Girls: 66
2) No. of Students in Secondary School (thousand)	Total: 136	Total: 137	Total: 225		Total: 131
	Boys: 10	Boys: 7	Boys: 19		Boys: 11
	Girls: 7	Girls: 5	Girls: 16		Girls: 10
	Total: 17	Total: 12	Total: 35		Total: 21

Sources: Economic Survey 1997, Welfare Monitoring Survey II 1994 Basic Report, Bomet District Development Plan 1997-2001, Kericho District Development Plan 1997-2001(2nd Draft), Kisii District Development Plan 1997-2001, Nyamira District Development Plan 1997-2001, District Education Offices at each district, JICA Study Team Survey

* Population in 1997 is estimated based on 1989 Census

b. Health and Sex Education for Adolescents

Sexual activity starts at an early age generally. For example, the mean age for the first sexual experience of the people in Nyamira in 1995 was reported to be 15.5 years. As adolescents engage in sex at an early age, the people in the Study Area would be predisposed to early pregnancy, HIV/AIDS, or other STD.

Traditionally, it was the responsibility of grandparents and other relatives to teach the young about sexual matters. In the present society, however, adolescents hardly have the opportunity to talk with their grandparents or with their parents about sexuality. Often, the school also does not provide enough comprehensive

information to adolescents. It is reported that the adolescent now depends on their peers (friends) as a source of information on sexual behaviours. It seems teaching sex education or family in school is controversial because some politicians, parents, and religious leaders feel that introduction of this education could result in a higher incidence of pre-marital sex. Thus the adolescent left in vacuum for appropriate information.

It is ironical that as the world moves into the information age, the young people in the Study Area have lesser access to proper information about an essential issue at such a critical time of their lives.

c. Marriage

In the Study Area, customary law allows polygamous marriages. In fact, in some communities, polygamy is still practised but not as common as in the past. It is seen among the older people (over 40 years of age) in Kericho and Bomet. It brings prestige and stature for men. It was also tolerated for husbands whose wives just gave birth because sex during the next 12 months after delivery was forbidden.

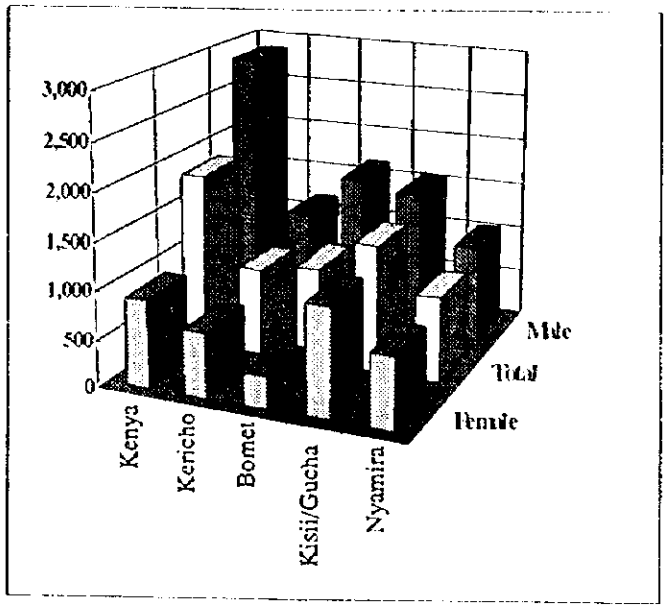
Nowadays, however, religion discourages polygamy. The economic situation and scarcity of land due to subdivision makes it difficult and impractical to maintain more than one wife.

3.3.3 Economic Context

a. Income and Expenditure

From the comparison below, it is evident that the income level of the Study Area is lower than that of the national average (Chart 3.5). Generally, the mean income for each district in the Study Area is half of the national average. Compared to the national average of male monthly income (2,869 Ksh), the averages for the Study Area would only be about 1/3 to 1/2. Surprisingly, the income of female Kisii/Gucha (1,146 Ksh) is far better than the national average (913 Ksh). However, the income for women in Bomet is very low at 344 Ksh.

Chart 3.5 Mean Monthly Income



Source: Welfare Monitoring Survey II 1994 Basic Report

The income and expenditure patterns in the Study Area are summarised below (Table 3.10). It should be noted that different criteria and procedures were used to obtain the data for Table 3.10 and for Chart 3.5. The results of the survey showed interesting trends. First, people in the town proper of Kericho spent the most on food while people from richer communities in Kisii spent the most on education.

Surprisingly, in most districts, the average total expenditure exceeds the average total income. This result would require further validation as the survey respondents might have overstated their expenditure and understated their income. Nonetheless, when households have less income than their expenditure, they depend on assistance from their working children, relatives, or friends either in the form of soft loans or gifts. In other cases, households borrow money from commercial institutions or the local self-help groups.

Table 3.10 Household Income and Expenditure per Year (Ksh)

District	Average Total income	Average Total Expenditure	Expenditure on Education	Expenditure on Food
Kericho District	31,845	59,085	4,545	54,540
Kericho (rural)	29,875	27,219	2,094	25,125
Bomet	18,573	32,960	2,535	32,560
Richer communities in Kisii (Bogiakuma/Riana)	49,470	55,189	19,965	35,223
Kisii (rural)	14,818	34,153	9,013	25,140
Gucha	51,186	26,376	4,514	44,461
Nyamira	28,089	36,681	18,900	19,950
Average	31,979	38,809	8,795	33,857

Source: JICA Study Team/Household Survey

* Five communities per district are sampled based on their accessibility to health service. Because effective numbers of the respondents for the sampled survey differs by districts, the figures in the Table are not enough to justify quantitative analysis of the household income/expenditure. They give general quantitative views about the income/expenditure patterns. It is assumed that the total household income could be more than what are presented above.

b. Major Economic Activities and Agricultural Products

The types of major economic activities and income sources depend on geographical characteristics of various sections of the Study Area. Generally, remote/marginal areas depend mostly on agriculture while township/market centres have diversified sources of income. For example, regular and casual employment and informal small-scale business ("jua kali") are found more often in Kisii and Kericho.

Table 3.11 Composition of Income Sources

District	Salary/Wages	Business (Self-employment)	Agriculture
Kericho	26%	10%	64%
Nyamira	15%	9%	76%
Kisii	14%	14%	72%
Gucha	16%	8%	76%

Source: JICA Study Team/Household surveys (50 households sampled at each district)

Note: The percentage of income sources by economic activities varies per community sampled in the 5 districts. Averages above show general views of each district. No data collected for Bomet.

As shown in the above Table 3.11, 64-76 % of the households depends on agriculture as the main source of income. The rich soil and the high and evenly distributed rainfall support farming of both cash and food crops (Table 3.12). Maize is the major crop that yields the highest amount; on the other hand, fruits and vegetables yield the least amount (Table 3.13). Tea is considered as a "high value crop" which brings good return to farmers. The major portion of the agricultural income for

farmers is derived from tea[5]. For example, 75% and 40% of the households surveyed in Nyamira and Gucha, respectively, grow tea. Other major cash crops are coffee and pyrethrum.

Table 3.12 Major Cash Crop and Food Crop

District	Major Cash Crop	Major Food Crop
Kericho	Tea, Coffee, Pyrethrum, Sugarcane, Wheat	Maize, Banana, Beans, Potato, Millet, Vegetables
Bomet	Tea, Pyrethrum, Maize	Maize, Beans, Potato, Vegetables
Nyamira	Tea, Coffee, Banana, Pyrethrum, Horticultural crops	Maize, Millet, Beans, Sorghum
Kisii	Tea, Coffee, Banana, Pyrethrum, Sugarcane, Horticultural crops	Maize, Millet, Beans, Banana, Potato
Gucha	Tea, Coffee, Pyrethrum, Sugarcane, Banana	Maize, Millet, Bean, Banana, Sweet potato

Source: JICA Study Team/Community Profile Survey

Table 3.13 Crop Production and Distance from Main House

	Kericho		Bomet		Nyamira		Gucha	
Crops	Average Distance (m)*	Average Amount Produced in Bags**	Average Distance (m)	Average Amount Produced in Bags	Average Distance (m)	Average Amount Produced in Bags	Average Distance (m)	Average Amount Produced in Bags
Maize	376	89	416	108	580	122	684	59
Potatoes	186	11	152	42	322	16	259	31
Fruits	90	4	112	2	38	6	16	3
Vegetables	42	20	28	12	20	8	-	20 baskets
Bananas	X***	10	X	8	X	1	140	46 baskets
Millet	50	3	22	5	X	9	74	4
Beans	317	11	175	14	393	-	266	7
Tea	130	-	-	-	310	-	-	-
Coffee	130	-	-	-	50	-	-	-
Sugarcane	4	-	-	-	-	-	-	-

Source: JICA Study Team/Household Survey

Note: No data collected in Kisii; - : No data collected

* Average distance from the homesteads

** Bag = Typical 90 kg sack commonly used in sugar packing

*** Grown in the homesteads

[5] It is reported that the average farmer in Nyamira produces about 2,000 kg of tealeaf per year. For the year 1997, the average price of tealeaf per kg was 10 Ksh although it varied from one Kenyan Tea Development Authority (KTDA) tea factory to another. Especially, Tea Bonus paid by KTDA on a basis of amount and quality of tealeaf is a part of important cash incomes for crop shareholders (farmers).

Another important source of agricultural income is dairy farming. Major types of livestock in the Study Area are shown in Table 3.14, which is based on findings of the community profile survey. Raising of cattle is common. Milk is one of the income sources for small farmers in the Study Area. Meat and eggs are being sold in the market instead of being served in the dining table.

Table 3.14 Major Livestock Production

District	Major Livestock Reared	Major Livestock Products
Kericho	Dairy cattle, Sheep, Goat	Milk
Bomet	Dairy cattle, Goat, Sheep	Milk
Nyamira	Dairy cattle, Poultry	Milk, Meat, Eggs
Kisii	Dairy cattle, Poultry, Goat, Sheep	Milk, Meat, Eggs, Hide and Skin
Gucha	Dairy cattle, Poultry, Goat, Sheep	Milk, Meat, Eggs, Hide and Skin

Source: JICA Study Team/ Community Profile Survey, District Agricultural Production Offices

c. Food Adequacy

In answer to the question "Is food production enough to feed the household?" about half of the households reported food inadequacy (Table 3.15). This phenomenon could be attributed to the following:

- urbanisation such as in Kericho district wherein there is fewer land area for cultivation;
- shifting from food crop farming to cash crop farming; and
- drier areas in Sigor in Bomet have lower yield.

Table 3.15 Food Adequacy at Household Levels

District	Yes	No
Kericho	52%	48%
Bomet	50%	50%
Kisii	48%	52%
Gucha	42%	58%
Nyamira	52%	48%

Source: JICA Study Team/Household Survey

d. Energy Sources

In the Study Area, the rural electrification programme has yet to reach many households. At present, electricity is used mainly at market centres and public institutions. For lighting the house, paraffin is the most common. Wood and charcoal remain to be the main source of fuel for cooking. Specifically, 99 % of the households in Kisii and 90% in Gucha depend on firewood. Cooking stoves made of

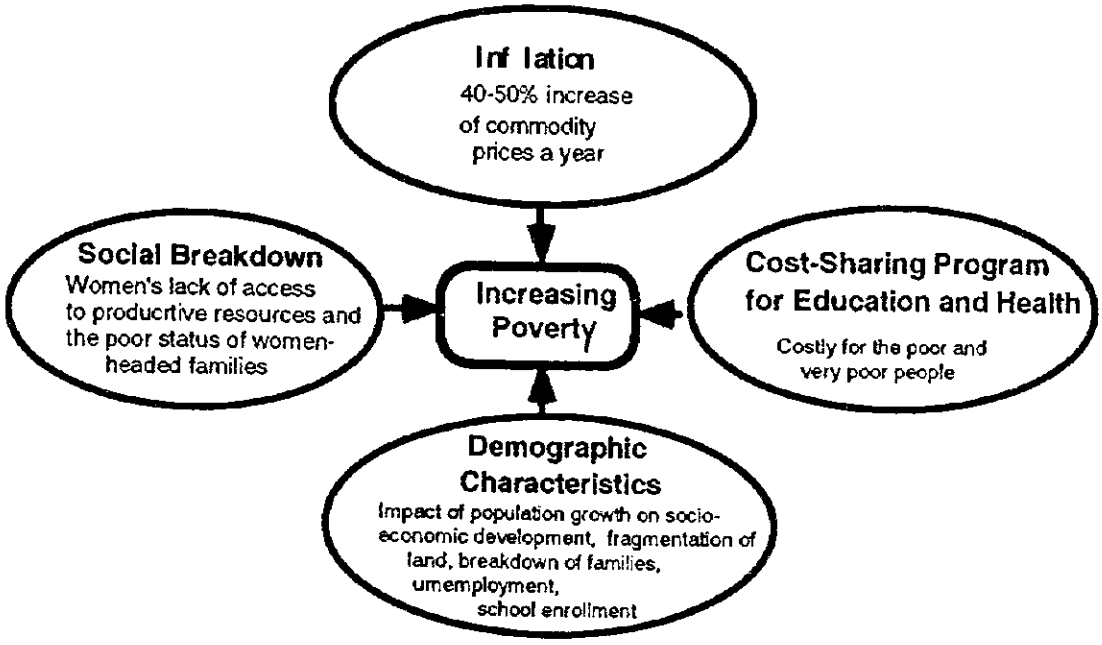
stone are very common. Some households use charcoal "jikos" and gas cookers. Cooking is done in a small kitchen that is often poorly ventilated so much so that women and girls, who are responsible for food preparation, are exposed to excessive smoke.

3.3.4 Risk of Poverty

According to the Poverty Assessment Report of 1994, 86.7% of the all respondents think their future situation will be worse.[6] Four factors are hypothesised to explain the respondents' bleak perception of their future.

1) inflation wherein prices of commodities increased by 40-50% in a given year;
2) social breakdown refers to limited access of women to productive resources;
3) rapid population growth; and
4) cost-sharing program for health and education services puts heavy burden on the poor and the very poor.

Chart 3.6 Major Contributory Factors to Poverty in Kenya



(Source: A Participatory Poverty Assessment Study-Kenya)

[6] AMREF, UNICEF and ODA, *A Participatory Poverty Assessment Study-Kenya*, 1995, p.9. In the national study, 5 villages of Bomet and Nyamira districts were selected as samples.

3.4 PLANNING ISSUES AND DIRECTION

Based on the discussion in the previous sections, at least five issues could be considered in the development of the Master Plan and Program of Action.

One, women are expected to play significant and multiple roles in health and health-related activities at home. However, they have many responsibilities that compete for their limited time. They hardly have any control over household resources. They have limited chance to own land that would serve as the primary source of household food and income. They also have more limited access to education.

Two, there are self-help groups in the Study Area wherein women, young people, and church-members could participate actively. However, women's responsibilities at home sometimes would make involvement in such groups difficult.

Three, the burgeoning population in the Study Area would continue to exert a significant pressure on the allocation of resources at the household and community levels.

Four, people in the Study Area seems to engage in sexual activities early in life. Considering that health and sex education are hardly provided at home or in school nowadays, the young people in the Study Area might be exposed unnecessarily to early and unwanted pregnancies, HIV/AIDS, and other sexually-transmitted diseases.

Five, it seems people in the Study Area are in worse off condition, in terms of income, than the average Kenyan population. Although agriculture remains the main economic activity, about half of the residents reported inadequacy in their food supply. Worse, almost nine out of ten people surveyed in 1994 expressed a bleak view of their future.

Considering the five socio-economic issues, the following directions for planning are proposed:

- investment in the development of women's capacity;
- diversification of community-based self-help group activities, with emphasis on those organised by women's groups;
- improvement in standards of living in rural communities through introduction of "Home Economic Improvement" activities; and
- health education for adolescents with the involvement of communities and schools.

Suggestions for specific projects are, among others, as follows:

- dissemination of knowledge, increasing awareness and promotion of practices on health and hygiene;
- promotion of health education at community level;

- promotion of healthy living environment;
- strengthening of the district child survival program; and
- enhancement of institutional capacities in managing HIV/AIDS programmes and other promotive/preventive activities.

Chapter 4

Community-Based Preventive/Promotive Health Care Program

4. COMMUNITY-BASED PREVENTIVE/PROMOTIVE HEALTH CARE PROGRAM

4.1 PROJECT RATIONALE

(1) Importance of the preventive and promotive health care

Kenyan Government has officially endorsed the primary health care (PHC) approach since the World Health Organisation's Alma Ata Declaration in 1978, where the primary health care (PHC) approach is defined as consisting of the eight elements, now increased to the ten elements (see Box 1).

Box 1.
Ten Elements of PHC Approach

1) health education
2) nutrition
3) maternal and child care and family planning (MCH/FP)
4) immunisation
5) environmental health
6) control of communicable diseases
7) curative services
8) essential drug
9) mental health
10) dental health

Recent health policy in Kenya re-emphasises the importance of the preventive and promotive health care services. It is said that "a large portion of patients seen in health institutions in Kenya suffer from communicable diseases, which could be prevented through simple public health interventions" such as immunisation, oral rehydration therapy and health education.[1]

In line with the above policy, expected benefits from the community-based preventive and promotive health care can be summarised as follows:

1. The government structure/system to promote community-based health care will be strengthened.
2. Health status of the community will be improved by health promotion and the prevention of the common diseases at the community level.
3. Effective mobilisation of community resources leading to self-sustainable community health activities.
4. Overburden of the health facilities (especially overcrowded district hospitals) reduced.

[1] MOH, Kenya's Health Policy Framework, November 1994, p. 22

(2) Low commitment for PHC by the government

In spite of the above-mentioned merits of the preventive and promotive health care, the government's actual commitment to the preventive and promotive health care has been low for a long time. Since 1979, the Ministry of Health's recurrent budget allocation to preventive and promotive health have been constant at the level of 20%, while the curative service has consumed about 70%.[2] In terms of staff allocation, the situation is worse. The preventive and promotive health personnel (e.g. public health officers(PHO), public health technicians(PHT), nutritionists, family planning, health education, community oral heath and vector born disease) consists of only 7 % of the whole health manpower in Kenya.[3]

In addition to this long neglect by the government, the health sector reform requires a reduction in the number of the government staff. This will worsen the current shortage of health personnel in the preventive and promotive health care.

(3) Weakness of the government structure and system to support community-based health care (CBHC)

Current government structure to support community-based health care (CBHC) is very weak, suffering from the following key problems.

Problem 1: Inactivity of DHMT Primary Health Care (PHC) Committee

According to the national health policy, it is recommended to establish a PHC Committee at district level to co-ordinate all relevant line agencies (e.g., Social Development, Water, Agriculture, Education) and interest groups (e.g., NGOs, Mission hospitals, community representatives) in order to promote CBHC (See Fig. 6.1). In most of the districts, the District Health Management Team (DHMT) have appointed a District PHC Co-ordinator. The role is normally assigned to District Public Health Officer (DPHO).

[2] Ibid, p.10
[3] Schwarz and Guild, A Study of Ministry of Health Personnel in Kenya, 1994

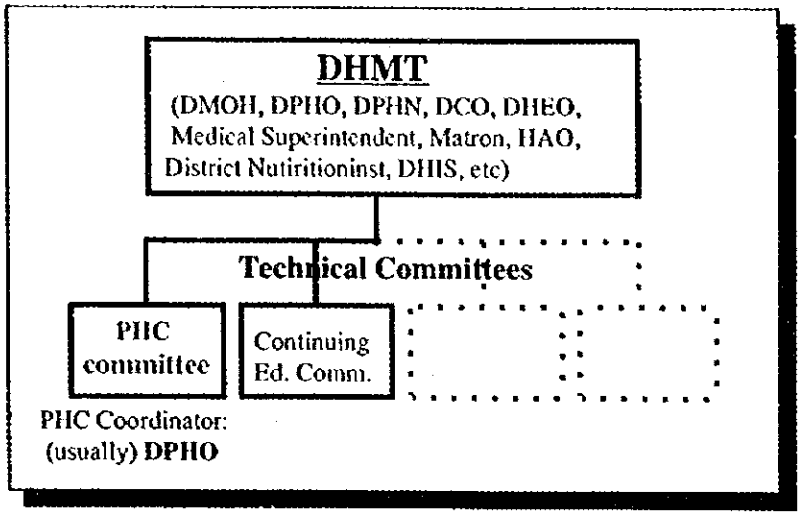


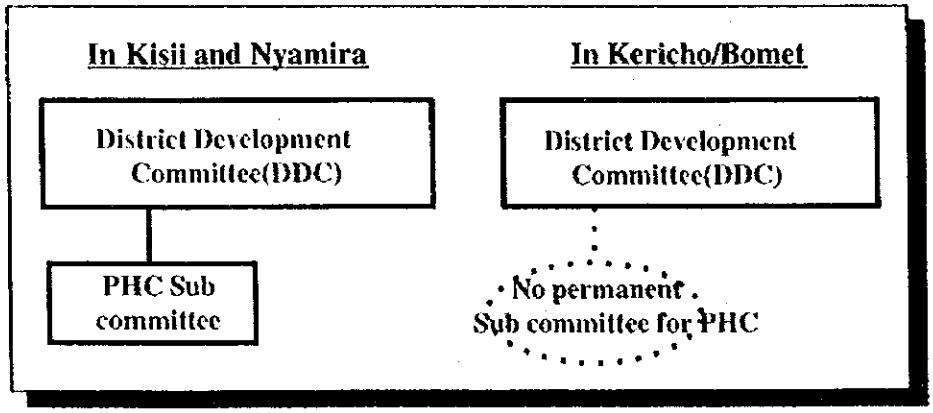
Figure 4.1 PHC Committee Under the DHMT

In many districts, however, the PHC Committee does not function properly. The malfunctioning of the PHC Committee is caused by the DHMT's lack of drive and inactivity of District Primary Health Care Co-ordinators (PHCC).

It is recommended 1) to establish/strengthen the PHC Committee's capacity as the key machinery to revitalise the PHC activities, 2) to provide training of District PHCCs in co-ordination and management skills and 3) to institute appropriate incentives and discipline for them to work efficiently.

In addition to the above PHC Committee under the DHMTs, District Development Committees(DDC) in Kisii and Nyamira have established permanent PHC sub-committees. They are governance bodies, and composed of multisectoral stakeholders such as representatives of the community, women's groups, Missions as well as the DHMT. On the other hand, such a regular-permanent body for PHC has not yet been formed in Kericho and Bomet districts. This sub-committee receives technical advice from District Health Management Board (See Fig. 4.2).[4]

[4] In Kericho and Bomet, MOH and DPHO are DDC members. In case there is an issue on health, the matter is discussed in DDC.



Source: JICA Study Team

Figure 4.2 PHC Sub-Committee under DDC

Problem 2: PHOs and PHTs rarely go to the communities.

There are some Public Health Officers (PHOs) and many Public Health Technicians (PHTs) based in the rural health facilities or locational offices, and they are supposed to serve the communities in the catchment area. Main activities of PHOs and PHTs are the prevention of diseases and promotion of healthy behaviour which are closely related to environmental health. Thus they are the key government health staff to promote community-based health care activities. JICA Study found that in practice they rarely go into the communities. Many people perceive that they come to the community only once year or twice a year.

In the Study Area, there are currently 28 PHOs and 325 PHTs (see Table 6.1).[5] This is an increase of 39 % since 1994. It is, however, not certain that an increase in number of PHOs/PHTs has led to promotion and quality of PHC activities in the district.

Table 4.1 Estimated Number of PHOs and PHTs in the Study Area

	Kericho	Bomet	Kisii	Gucha	Nyamira	Total
PHOs*	7	6	5	4	6	28
PHTs**	77 (Including 50 PHT(M))	69 (Including 40 PHT(M))	80 (Including 30 PHT(M))	30 (Including 12 PHT(M))	69 (Including 22 PHT(M))	325 (154 PHT(M))

Sources: JICA Study Team
* No. of PHOs includes 1 District PHO
** PHT(M): PHTs who trained for preventive maintenance of facilities by PMIU or MTC

In the JICA health seeking behaviour survey, a majority of household respondents replied that major source of health information (Malaria, Immunisation, MCH and

[5] Based on JICA Study Team survey.

F/P) was from the government health staff, mainly from nurses who are based at facilities. In Bomet district where Mission NGOs (Tenwek and Kaplong Hospitals) have developed strong community based health care programs, information sources for the communities are overwhelmingly from the Missions. For information on water and sanitation, the respondents answered the main information channels were chief's barazas (by a talk by chiefs or PHTs), followed by the government staff at facilities and churches. Messages on nutrition are seldom available to the community. Approximately 25% of the respondents perceived that no information source on nutrition was available.

The above survey results suggest that the capacity of the government outreach services on delivery of health and messages to the communities is limited while despite the fact that the government hires that many staff (e.g., PHOs, PHTs, Field Health Educator (FHE), Family Planning FHE) for promotion of PHC at communities.

The inactivity of PHOs and PHTs has often been attributed to the lack of vehicles or fuel. Due to the shortage of funds, many of the government health staff do not have access to a motorbike nor do they get reimbursement for public transport to enable them to go to the community. The lack of transport may be a reason that makes the government staff frustrated and discouraged for their duties. However, it is also found that the biggest problem for inactivity is the government officers' attitude and low morale for work. In other words, it could be said that the health service staffs generally lacks of vision of health they want to materialise in the area. These low moral and a lack of vision have been neglected for a long time and then the lack of initiatives are currently prevalent in the government staff. Many of the government officers (PHOs, PHTs etc.) seem to be unwilling to go to the communities by motorcycle or matatu.

In other community-based programs implemented by NGOs or Mission Hospitals (e.g., Tenwek Community Based Health Care Program in Bomet district), the supervisors are using the motorcycles, bicycles or even public transport (e.g., matatu) to supervise the Community Health Committees twice a month. At present, no economic incentive or disincentive is applied for the government health staff to accomplish their duties.

Problem 3: Poor communication between DPHO and PHOs/PHTs

The District Public Health Officer (DPHO) is supposed to supervise PHOs and PHTs in the district and co-ordinate and promote their activities in the communities. But it is often found that the communication between DPHO stationed at the district headquarters and PHOs/PHTs in the rural health facilities is not good.

The government hierarchical structure seems to work better when conveying information or orders from the top to the bottom, but is not effective when conveying information from the bottom to the top. Some PHOs/PHTs in the rural health facilities complain that it is difficult to make their voices from the field audible to

the District Health Management Team (DHMT). This poor information flow from the bottom to the top, hampers the DMHT and DPHO from knowing the real situation at the ground, and hinders the community-based health care approach. It is necessary to reorient and change the DHMT and DPHO's attitude into a more community-oriented one in order to develop community-based projects.

Another issue to be addressed along with communication is delegation of power. Key personnel of the DHMT, such as District Health Medical Officer (DMOH) and DPHO, are often occupied with various matters. Since they have many junior staff, it would be more effective and efficient if they empower junior staff for certain decision making.

In summary, the weakness of the government structure to promote community-based health care is basically due to the lack of government officers' attitude and initiative to serve for the communities. To reorient and change their attitudes and behaviours, training and the introduction of the new incentives and discipline will be necessary.

Problem 4: Lack of the Co-ordination among Community Group Activities and Lack of Community Empowerment Experience

In the Study Area, there is a large number of community group activities (See Table 6.2).[6] Main objectives of the community activities are to generate income and to improve the living standard. The District Social Service Department is the responsible agency for registration, monitoring and mobilisation of the community based self-help groups.
It also co-ordinates and links inter-sectoral technical advice to the recipient groups. Social Services and most of other line agencies (e.g., Agriculture Department, Water Department) have their extension workers at divisional and locational levels and they are supposed to give technical advice to the community group according to their needs. However, it is doubtful if the available resources of the community are well mobilised, if the community groups receive appropriate technical advice from various line agencies and if co-ordination and information exchange among the community groups are good.

[6] Numbers identified from information at District Social Services Offices. Community activity groups (e.g., women groups, self-help group, youth group, school and other community project groups) are encouraged to register to the Department of Social Services and to open the bank account.

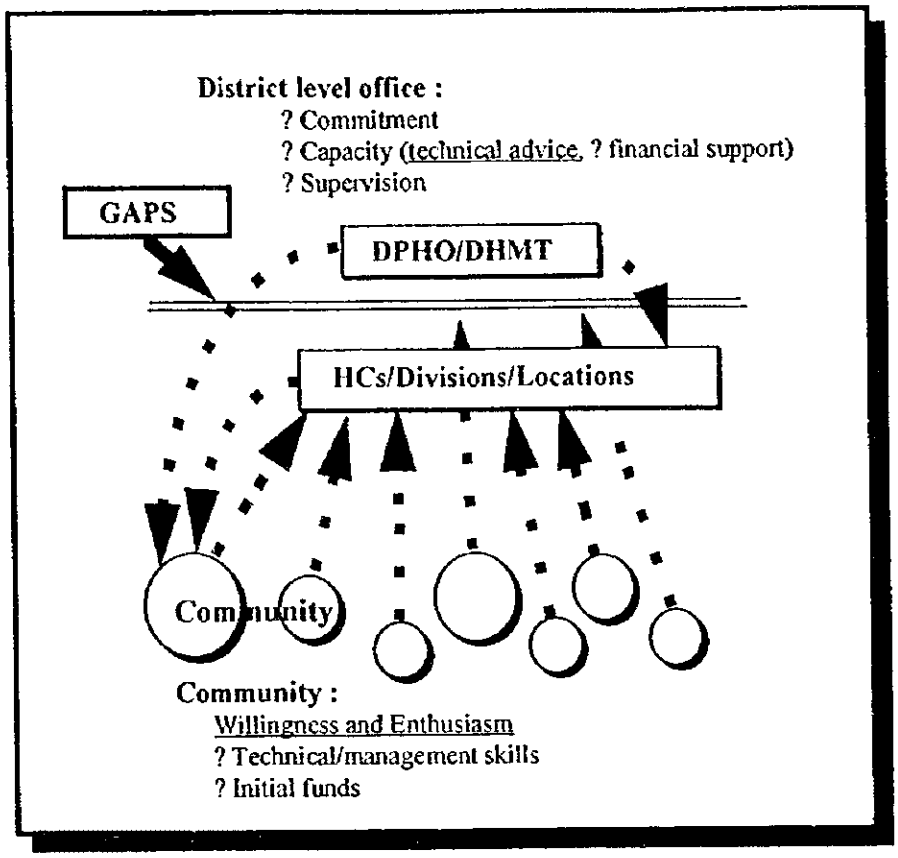


Figure 4.3 Communication Problem among District and RHFs/Community

Table 4.2 Number of Community Activity Groups*

	Kericho	Bomet	Kisii/Gucha	Nyamira
Women Group	720	418	n/a	869
Members	n/a	16,209	n/a	26,142
Youth Group	944	1,200	n/a	764
Members	2,172	n/a	n/a	15,851
Farmers Group	123	60	n/a	6,832
Members	n/a	n/a	n/a	78,328
Self-help Group	189	1,542	645	1,683
Members	2,444	n/a	9,514	42,095

Sources: 1996 Annual Reports of Social Services Department
* Numbers of groups registered to District Social Services Offices

There are many successful experiences of community activities in the Study Area, but the success is hardly replicated other groups. There seems to be various reasons for this. First, continuous support for the community groups by the Social Services Office, and other line agencies, is weak due to the lack of funds. It is said that the District Social Services Office used to allocate "development funds" to community groups, but these are no longer available.

Second, people's dependency on the government or others (e.g., Missions, NOGs, donors) seem to be quite high, but awareness and the community's own ability to manage issues for themselves has not permeated. It is critical to empower the community to empower so that they can bargain for their needs and use their own initiative for life betterment. It is also necessary to look for a better mechanism to co-ordinate and mobilise available resources for group activities and to avoid further proliferation of over-lapping groups.

4.2 POSSIBLE INTERVENTIONS

After understanding the need for the community-based preventive and promotive health care (CBHC) and the current problems of the government structure and system described in the above, the following recommendations are identified as the key intervention areas to remedy the problems.

[For the following interventions, it is assumed that donors will provide 1) technical assistance in terms of training to increase capacity for PHC activities, and the project implementation and management, 2) material assistance such as provision of start-up material kits as a basis of revolving fund and 3) transportation required for supervision]

(1) Reorienting the government officers for CBHC to work for the communities

As explained earlier, the current government structure and system is not geared for promoting community-based health care, and most of government officers in charge of community-based health care (especially PHOs and PHTs) are inactive and rarely visit the communities which they are supposed to serve. So it is necessary to reorient and train them into the officers who really care about the rural people and are willing to go to the communities even by motorcycle or matatu. It is also recommended to introduce some kinds of incentive or recognition such as bi-annual "PHO/PHT Award" that will be given to whom achieves an tangible impact of PHC to the communities.

(2) Activating the DHMT PHC Committee as the key machinery to promote and co-ordinate community-based health care activities

The government's capability to promote and co-ordinate CBHC activities is currently questionable. It is recommended to strengthen the DHMT PHC Committee to promote and co-ordinate community-based health care activities. In order to strengthen the PHC promotion, the Co-ordinator needs his/her capacity development to enable access the needs of the community, plan the activities, implement the activities and evaluate the progress of them. The main training for the PHC Co-ordinator shall be organisational/management skills to mobilise available budget and the government PHC staff as well as facilitating multi-sectoral efforts from the DDC's

PHC Sub-committee members. In addition, the PHC Co-ordinator also needs to be trained for Participatory Rapid Appraisal (PRA) method to employ needs of health at the communities to their activity.

(3) Creating a district co-ordinating body for community-based health care groups

At the same time, it is also necessary to create a district co-ordinating body (e.g., committee/association) of community-based health care groups in order to demand communities' need for health to the PHC Committee and the DHMT/DHMB. As mentioned previously, there are many groups at the community, but there have been little experience for the community groups to bring their resources and experiences under one umbrella organisation.[7]

This organisation will play the pivotal role in disseminating and replicating successful cases of some community groups to other groups by accumulating experiences and technical and managerial know-hows for successful community-based projects. The management body of this grass-root organisation will be established separated from government and can be composed of the representatives from the community groups and NGOs in district.

The proposed functions of this co-ordination body for the CBHC groups will be as follows:

- to facilitate information exchange among community groups
- to arrange exchange visits among community groups or study tours to other groups
- to provide technical and managerial training for the community groups leaders
- to provide technical and managerial consulting services to community groups
- to provide training for community's field health workers (CHW, TBA, CBD, local artisans, etc.)
- to develop health education materials for the use of field workers
- to establish a revolving fund to provide micro-credit for community groups' income generating activities

[7] Maendeleo Y Wanawake Organisation (MYWO), a leading women NGO for rural development in Kenya, has umbrella type structure covering regional-wide women groups at district, province and national levels. Because MYWO has experienced structure and mechanism to bring regional-wide women groups together, this can be a good example for the above proposed district co-ordinating committee/association.

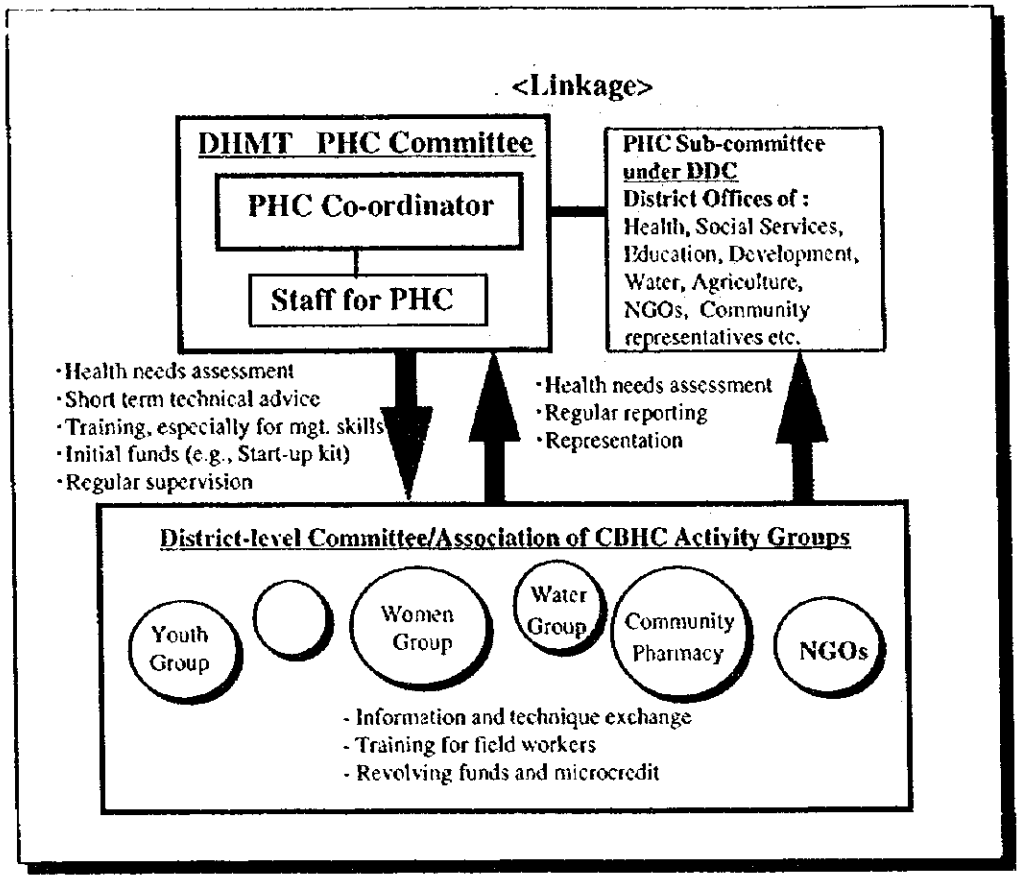


Figure 4. 4 Proposed Mechanism for the PHC Promotion at District

(4) Developing strategies to make community-based health care programs "sustainable"

According to the JICA Study Team survey, key elements of successful community-based health care programs are as follows:

- the activities are based on the real needs and selected by the community or group members
- the activities are not limited to the direct medical problems, but also include the health related activities such as water and sanitation
- the community's or group's strong will to improve their lives
- committed leadership in the community or a group
- good record keeping and transparency to the bank account
- fair and clearly stated rules shared among the group members
- clear and affordable member's obligations and contributions (e.g., membership fee, monthly deposit, labour contribution, material contribution)
- income generation activities to make funds available for the groups
- clear short-term benefits (not only the health benefit, but also the economic benefit) for the community or group members which give them the incentive to work harder

- regular supervision and advice by an outsider, until the community or the group becomes self-sustainable

Outside donors cannot continue to support community-level activities for ever, so it is important to develop clear strategies to make the community or a group become self-sustainable. The following are the possible strategies to promote self-sustainability of the community-based health care:

Strategy 1: Providing start-up material kits as basis for revolving fund

In the Bamako Initiative projects, the drugs and mosquito bed-nets were donated to the community which were to be sold and the money are to be provide a basis for a revolving fund for the future re-supply. In the proposed project, the community groups will be given the start-up material kits to start their selected activities. They will be expected to sell these start-up materials and establish a revolving fund for future activities. The start-up material kits could be the following types to suit various needs of the community:

- malaria kit (e.g., bed-net, drugs, insecticides)
- water and sanitation kit (e.g., cement, pipe, water tap, shovel, hand pump)
- reproductive health kit (e.g., TBA kit, contraceptives)
- income generation kit (e.g., sewing machine, carpenter's tools)

Strategy 2: Combining health promotion and income generation

Some groups are making mosquito bed-nets for income generation (e.g., AMREF Nyamira Office is assisting the youth groups in their Adolescent Health Program). This type of combination of income generation by producing and selling health-related products should be encouraged through PHC promotion to make the group funds available. Japanese medical entomologist also advised the production mosquito repellent bars out of the locally available pyrethrum flowers at the community or at home.

Strategy 3: Setting up monitoring indicators

Tenwek Community Health Program in Bomet district uses the following monitoring indicators. They are used to judge whether the community or the group, is capable of sustaining itself with reduced support;

- the number of the Village Health Committee meetings held in a year
- the total number of the participants in the above meetings in a year
- the number of the trained persons in the Village Health Committee
- the number of the trained Community Health Workers in the community

- the number (and the percentage) of the households in the community which have been visited or served by the Community Health Workers
- the number of environmental health facility (e.g., toilet) increased

The proposed project should identify a similar set of the indicators and criteria in order to monitor the progress, or problems, of the community-based health care activities.

(5) Educating the community on the prevention of the major diseases and health promotion

Malaria is the biggest killer disease in the study area. According to our survey, many people in the community perceive that the causes of malaria are not only mosquitoes but also other factors such as contaminated water and food.[8] People consider that to employ all the preventive measures to possible causes is technically difficult.

Mosquito bednets, insecticide sprays and mosquito coils are often seen by the community perceive too expensive to use. However, many people do not know the actual prices of them because they are rarely available in the local stores, and their image of high cost prevents people from looking for the prices. It is assumed that people reject their use of preventive measures because their high cost. It is considered that if people's understanding of the real causes of malaria could be increased the demand for appropriated preventive measure could go up.

Other areas for health education which the community needs are diarrhoea prevention and management, nutrition especially for children (as mentioned before), reproductive health and family planning, and safe water and sanitation. It is important to use appropriate media for health education in order to reach the community people. According to our survey, radio, folk media and mass campaign are regarded as the most effective media to convey messages to the widest audience. Radios are found in many households, and listening to the radio is a popular pastime among family members. In a radio spot, simple but easy-to-remember phrases can be broadcast repeatedly so that the messages penetrate the audience. But the problem of the radio programs is the high cost of buying air-time. Past experience shows that radio broadcasting cannot be sustained without sponsors. So it is important to solicit the potential sponsors for health education radio programs, not only among foreign donors, but also among Kenyan private companies.

For sustainability, the use of folk media (such as dramas, dances) are better, because they do not cost so much. There are many experiences using community activity groups (e.g., women groups) to deliver the health message through dancing and

[8] A survey on "People's Knowledge, Attitude and Practice(KAP) and Market on Goods for Malaria Prevention" was done from June to August, 1998 as well as Malaria Case Management survey. The finding of this survey is introduced in the chapter 4 of this supporting discussion paper.

singing in the Study Area (e.g., a HIV/AIDS campaign in Kisii district in 1997). Since folk media are based on the local people's tradition and skills, the local people already have the potential to develop and perform. Folk media provide not only education but also entertainment for the community, so they can attract the wider audience.

The community can participate in the whole process of making folk media with the health messages: From identifying the health problems in their community, developing the health messages, designing the performance and to performing at public meetings such as chief's "baraza". This process empowers the people. This participatory process can change people's attitudes and practices, because they are actively performing rather than passively listening. Their satisfaction after a successful performance will give them confidence to change life, and make them work further to improve their own life.

In Kenya, there are many national health-related mass campaign events such as National Immunisation Day, National AIDS Day, National Population Day. It is recommended to organise a new district-based health campaign such as District Malaria Day/Week or School Health Day. It seems to be relatively easy to solicit donors and sponsors to finance the part of the mass campaign activities, because of their high visibility in the media.

(6) Establishing school health programs

The number of schools are several times bigger than the number of health facilities, so if schools are involved in health activities, the impact on children's health will be great. But in Kenya, education at schools is limited to providing knowledge only.

In case of Japan, education at schools includes not only providing knowledge, but also physical fitness and civic education. Japanese school has a school nurse and a regular physical check-up for the pupils and students. The schools where the health condition of the students are very good are awarded "Good Health School Award" in the national level. In Uganda, health education using Child-to-Child approach is integrated in the national curriculum for primary and secondary education. So it is recommended for the Ministry of Health to collaborate with the Ministry of Education in order to seek for the possibility to incorporate health education in the national school curriculum as a long-term strategy.

In the district and the community, school headmasters, parents and teachers association (PTA) and the school board have the discretion to incorporate some school health activities such as regular physical check-up and health education as extra-curriculum activities. So it is important to sensitise school headmasters, PTA and the board members on the importance of school health activities.

If the above suggested interventions from (1) reorientation of the government officer for CBHC, (2) activation of the DHMT PHC Committee, (3) creation of district co-ordination body for CBHC groups, (4) development of strategies for sustainable CBHC programs, (5) education to the community on the disease prevention and health promotion, to (6) establishment of school health program, are taken place in district, it is expected that government's PHC activities and awareness of the community will enable people to improve their health fair in a sustainable way.

4.3 PROPOSED PROJECT

(1) Project Goal

To improve villagers' health and to prevent major diseases and at the community level

(2) Project Objectives

1. To promote community-based health care (CBHC) activities through community by:

(i) To strengthen the capacity of the community to start and manage the health promotion and income generation activities

(ii) To develop the strategies that community can become self-sustainable after short term support

2. To train government staff in charge of CBHC, community leaders
3. To activate government structure/system of PHC activities through capacity building of the PHC Committee
4. To establish a new district-level body to co-ordinate and empower CBHC activity groups
5. To establish a school health program to increase awareness of health among children, parents and teachers and improve children's health status

(3) Project Area

Kericho and Bomet, Nyamira, Kisii and Gucha Districts

(4) Project Duration

5 years

(5) Implementing Agency / Body

District PHC Committee under DHMT

(6) Target Beneficiaries

1. Community
2. Community's field health workers such as community health workers [CHW], community-based distribution [CBD] agents of contraceptives and drugs, traditional birth attendants [TBA], traditional healers [TH] especially herbalists and local artisans
3. Community leaders, group leaders, school teachers

4. Government health staff for CBHC (District PHC Co-ordinator, PHO, PHT, Field Health Educators [FHE], Nutrition Officers [NO] etc.) and DHMT members
5. School children

(7) Expected Output

1. Government staff in charge of CBHC are given further training.
2. Community/group leaders and school teachers are given further training.
3. Community's field health workers (CHW, CBD, TBA, TH) are given further training
4. Self-sustainable CBHC projects are established.
5. A school health program is established.
6. Government system to promote CBHC is strengthened.
7. Revitalisation of the PHC Committee as a key machinery to promote CBHC activities
8. A new district level body (e.g., committee/association) to co-ordinate and to empower CBHC activity groups is established.

(8) Project Activities

Phase 1 (year 1, 2 and 3): Pilot projects in the selected communities [9]

1. Advocate and create awareness on the importance of CBHC approach
2. Train government CBHC staff for revitalisation of the District PHC Committee

Contents for training:

- organisational arrangement and management
- community health needs assessment techniques (participatory rural appraisal (PRA))
- monitoring and supervision

3. Conduct health needs assessment and identify the target communities
4. Train community leaders and group leaders

Contents for training:

- leadership, record keeping and financial management
- community health needs assessment technique (PRA)
- basic knowledge on the major diseases and the prevention and home management of the major diseases
- starting and managing income generation projects

5. Train community's field health workers (CHW, CBD, TBA, TH)

Contents for training:

- updating knowledge/skills on health care
- networking and possible linkages with rural health facilities
- how to make associations of CHW, CBD, TBA, and traditional healers - especially herbalists if there is a need for associations

[9] School health programs will be developed in similar arrangement to activities of Phases 1, 2 and 3 mentioned here.

6. Conduct PRA to design activities for the selected communities
7. Provide start-up material kits as a basis for revolving fund
8. Help the community to train and sensitise people

   Contents for training:

- home diagnosis of malaria and the right timing to take patients to a health facility
- nutrition and kitchen garden
- safe water and sanitation (especially permanent toilet construction)
- home/community-based prevention of major diseases (e.g., malaria prevention)
- skills on health-related income generation projects (e.g., community pharmacy, mosquito bed-net production, mosquito coil/stick production, honey bee keeping)

9. Supervise and advise community until they become self-sustainable
10. Document and monitor all processes of promoting self-sustainable CBHC

Phase 2 (year 4): Establishment of a new district co-ordinating committee/association of community groups to promote CBHC

1. Organise a district-level workshop, where the community in Phase 1 get together, exchange their experiences and identify the needs for a district-level co-ordinating organisation to promote CBHC
2. Develop a detailed plan on how to establish a district-level co-ordinating body to promote CBHC (mission statement, organisation structure, management body, staff recruiting, government registration, initial fund, time schedule, etc.)
3. Establish a district-level co-ordinating body of community groups to promote CBHC according to the plan

Phase 3 (year 5): Expansion of CBHC activities to other communities

1. Develop strategies and a mechanism to disseminate the successful methods used by successful projects to other communities, through collaboration between the PHC Committee and a district-level co-ordinating committee/association of group activity
2. Expand CBHC activities to other communities

4.4 NECESSARY ARRANGEMENT FOR PROJECT IMPLEMENTATION

To implement this project, the following arrangements will be necessary:

1. Kenya Government (Ministry of Health) should revitalise District PHC Committee by providing the incentives and disciplines to the government officers in charge of CBHC.
2. Local government should provide necessary personnel, facilities and recurrent costs to sustain the project.
3. Donor should provide (1) technical assistance of training, project implementation and management, (2) material assistance such as provision of start-up material kits and (3) transportation (e.g., motorbike) to supervise the community

Priority Program 4: COMMUNITY-BASED PREVENTIVE/PROMOTIVE HEALTH CARE PROGRAM

1. Project No.	2. Project Title		
P-4	Community-Based Preventive/Promotive Health Care Program		
3. Project Location	**4. Target Beneficiaries**	**5. Project Duration**	
Kericho, Bomet, Nyamira, Kisii, Gucha Districts	1) Community 2) Community leaders/group leaders 3) Government health staff for CBHC 4) School Children	5 years	
6. Implementing Agency / Body		**7. Project Level**	**8. Priority**
"District Primary Health Care (PHC) Committee" under DHMT		Basic	Medium

9. Summary of Objectives

(1) to promote community-based health care (CBHC) activities through community
(2) to activate government structure/system of CBHC activities through capacity building of PHC Committee
(3) to train government staff in charge of CBHC, community leaders, and community's field health workers
(4) to establish a new district-level committee/association to co-ordinate and empower CBHC activity groups
(5) to establish a school health program to increase awareness of health and improve children's health

10. Justification

- Prevention of diseases and health promotion at the community level is better than cure.
- Effective community resource mobilization can lead to the sustainable community health activities.
- Overburden of the health facilities (especially overcrowded district hospitals) can be reduced.

11. Expected Benefits / Outputs	**12. Verifiable Indicators**
• Local government staff in charge of CBHC are better trained; • Community/group leaders, community's health field workers and school teacher and are better trained; • Self-sustainable CBHC projects are established; and • Government system to promote CBHC activities is strengthened.	• No. of trained government staff • No. of trained community/group leaders and school teacher • No. of self-sustainable CBHC projects • CBHC Supervision Records

13. Important Assumptions / Conditions for the Project

- Decentralization process continues. (Especially bottom-up planning approach is accepted.)
- Government decides to put more emphasis and resources on community-based health care.

14. Project Linkages / Other Sector Linkage	**15. Relevant Agencies to be Coordinated**
Line ministries at district: Social Services, Dev. Office, Education, Water Resource, Agriculture/livestock	DANIDA, SIDA, USAID, IFAD, NGOs

16. Major / Key Activities	**17. Major Input**		
	Personnel	**Materials**	**Funds**
❑ Train government CBHC staff to revitalize the PHC Committee	x		x
❑ Conduct health needs assessment and identify the target community	x		x
❑ Train community leaders and group leaders on CBHC activity	x		x
❑ Train community's field health workers (CHW, CBD, TBA etc)	x		x
❑ Provide start-up material kits as a basis of revolving funds	x	x	
❑ Advise and supervise the community until they become self-sustainable	x		
❑ Establish a school health program through sensitization of school teachers, headmasters, PTAs and School Board members	x		
❑ Establish a new district-level coordinating committee/association of CBHC activity groups	x		
❑ Expand the CBHC activities to other groups	x	x	x
❑ Document all processes of promoting self-sustainable CBHC	x		
18. Estimated Total Cost (only facility, equipment and supply)		US$ 0.8 M.	
19. Necessary External Inputs / Assistance / Arrangement			
Government(HQ and local) revitalizes District PHC Committee	x		
Local government's strong will/commitment to prepare required personnel, facilities and recurrent costs to secure sustainability of CBHC activity	x	x	x
Donor assists training, supervision, start-up kits and transportation for supervision	x	x	x

Chapter 5

The Survey on People's Knowledge, Attitude and Practice (KAP) on Malaria and Market of the Goods for Malaria Prevention

5. THE SURVEY ON PEOPLE'S KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) ON MALARIA AND MARKET OF THE GOODS FOR MALARIA PREVENTION

5.1 INTRODUCTION

5.1.1 The Objectives

In order to frame effective policies that can improve the health condition of rural people, it is crucial to understand the manner these people actually behave. Therefore, tackling the issue of malaria, which is increasingly becoming serious in some parts of western Kenya, requires one to understand people's perception to malaria and conditions that influence it. It is with this understanding that the KAP and Market survey was conducted in the five Districts of Kisii, Gucha, Nyamira, Kericho and Bomet[1].

The objectives of this survey was to get basic data and information on:

1) people's knowledge, attitude and practice on prevention for malaria;
2) channels of information acquirement; and
3) access to goods used for prevention (e.g. mosquito nets and coils) and market on such goods.

It is expected that the better understanding in these areas will help one concerned identify both the problems to be addressed and the measures to be taken, together with the obstacles that need to be overcome.

5.1.2 Study Sites and Methodology

a. Study Sites

The total of 10 communities in the five Districts listed above were selected as Study Site. Two communities, one being good access site and the other poor access site, were selected from each of the District. Accessibility here refers to the distance to

[1] Although since the restructuring of District system Kisii, Gucha and Nyamira Districts have been called Central, South and North Kisii respectively, the original names are used in this report for the purpose of consistancy with the report previously written.

health care facilities (HCFs) in the practical sense. Therefore, sites close to HCFs and/or connected with goods road and adequate transportation were classified as good-access communities, while the opposite is true to poor-access ones.

Table 5.1 is the list of Study Sites. More detailed information about the Study Sites is given in the Annex 1. Note that two of the sub-locations of Fort Ternan Division and Kipkelion Division, that is, Siwot and Kapkures, were found to be of only poor access and are treated as such in this report.

Specific sub-locations where the survey was conducted were chosen by local leader (e.g., location chiefs) on the arrival of the Study Team.

Table 5.1 Surveyed Communities

District	Good-access communities			Poor-access communities		
	Division	Location	Sub-location	Division	Location	Sub-location
Kisii	Masaba	Masaba	Riuri	Soneka	Bogiakumu	Bumwanda
			Kerema			Bonyando
		Nyariban	Metembe			
Gucha	Kenyenya	Masaba	Kenyenya	Etago	Getembe	Nyabere
						Mabera
Nyamira	Rigoma	Kitutu	Bocharia	Nyamira	W. Mouiranuo	Bokiambori
			Embaro			
Kericho				Fort Ternam	Chilchila	Siwot
				Kipkelion	Kipsegi	Koisagat
						Kapkures
Bomet	Bomet Central	Sibayan	Kapkoros	Sigor	Sugmerga	Nyambugo
			Sibayan			Sugumerga

b. Study Methodology

Two research methods, Focus Group Discussion (FGD) and Household Survey (HHS), were employed for KAP survey. Market survey was conducted by visiting shops in the surveyed community in which the availability of goods for the prevention/treatment of malaria goods was explored. Local health workers who are fluent in specific local languages were employed as survey assistants. They were trained prior to the study so that they can understand the goal of the survey, what is meant by each question, appropriate manner of probing answers, and effective ways to conduct FGD. For the purpose of pre-testing and training of research assistants, two FGDs were conducted and two households were visited for HHS in Marani village near Kisii so that the assistants picked up experiences and the appropriateness of questionnaire was tested.

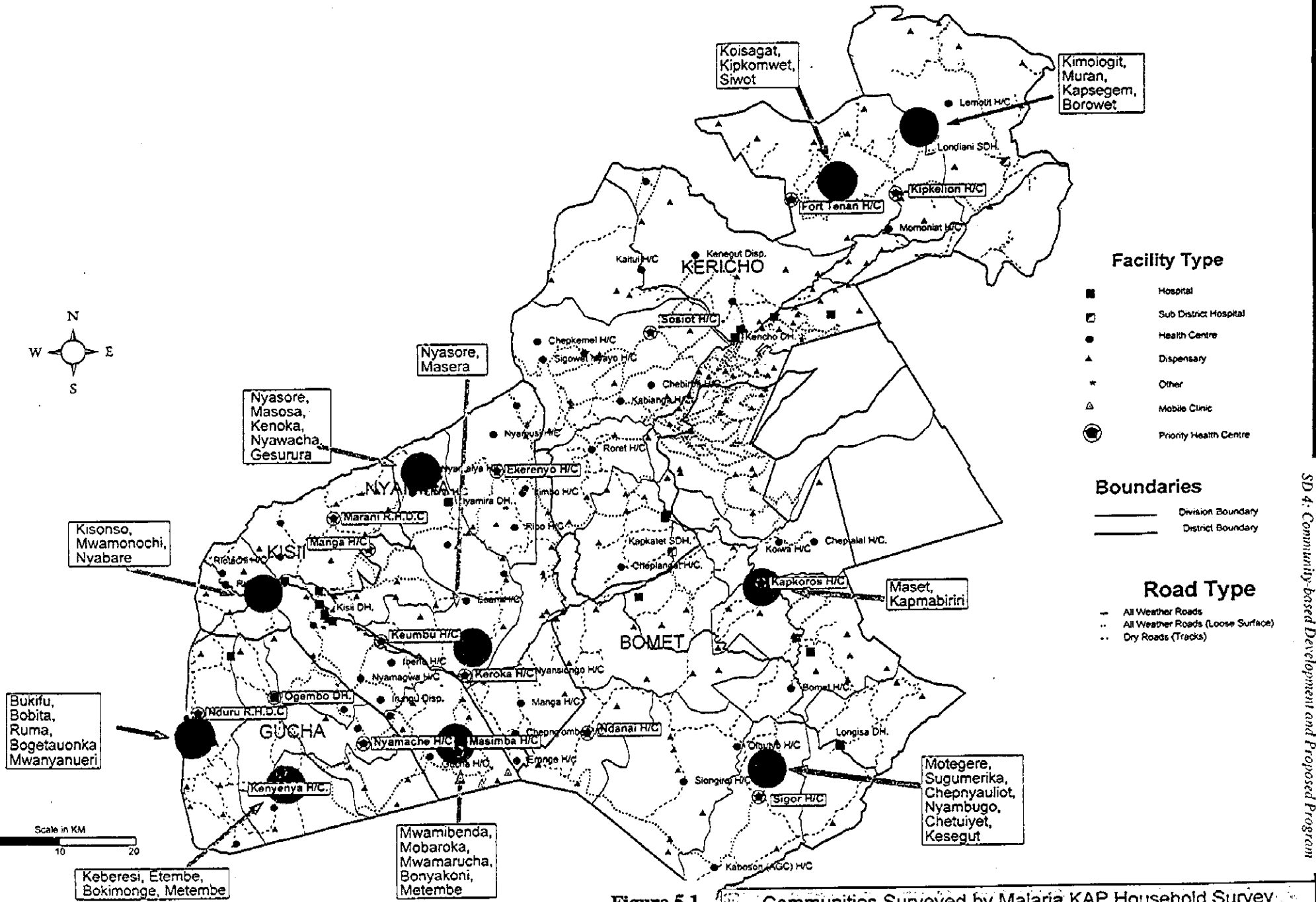


Figure 5.1 Communities Surveyed by Malaria KAP Household Survey

Focus Group Discussion (FGD)

At each survey site, two FGDs were conducted, one by male attendants only and the other solely by female attendants, where the qualitative exploration as to the perception and behaviours about malaria on the part of local people was carried out. In it, approximately 15 to 25 attendants sat together, discussed their experiences about malaria, and expressed their views towards it. Attendants of FGD were mostly farmers, followed by businesspersons. Lists of occupation and One study assistant facilitated discussion in the specific local languages, raising issues and probing comments, which were recorded by another assistant in English. Local chiefs, sometimes together with local health workers, helped us in selecting attendants. Discussion was sought to center around issues such as below;

1) local names, local classification, and perceived causes and symptoms of malaria
2) knowledge, attitude and practice around malaria prevention and treatment
3) sources and media of health information

Effective matching of HHS and FGD is extremely crucial for this kind of research where the time is limited and thus sample size of quantitative survey is necessarily small. The questions and trends that emerged from HHS, and the hypothetical answers to them, were put into FGD so that deeper understanding and knowledge were obtained within limited duration of time.

Household Survey (HHS)

At each survey site, 10 households, two from upper class, four from middle-class and another four from lower-class ones, were visited. Households to be visited were selected by local residents according to their perception of 'wealth'. The questionnaire attached in the Annex 2 was used, where quantitative data as to issues listed below were sought.

1) demographic characteristics, resource and wealth situation of households
2) water, sanitation, kitchen and group activities
3) knowledge, attitude and practice as to malaria, as well as health seeking behaviours in general.
4) sources of information and media for health information
5) sleeping pattern and characteristics of evening and early morning activities

One adult member of households, either male or female, who was present when Study team visited was chosen as the main respondent of HHS. To note is the influence of the presence of male adults, especially in Kericho/Bomet area; even though the main respondent was female household member, male adults who happened to be there tend to intervene in the questioning, at which time this female respondent tended to shut their mouth.

Research assistants asked questions and recorded answers, which were checked on the spot by the Study Team members who accompanied. Data collected through HHS is basically quantitative one which is used both to base the entire survey and to find the perceivable trends and issues that are further explored during FGD. Hypotheses were developed during the survey, of which the appropriateness was sought during FGD.

Market Survey

Two shops were visited at each study community to look into the availability of goods for malaria prevention and treatment at the locality. Some community had only one shop within the boundary, in which case the only shop was visited. Shop owners or the adults who took care of shops were asked about the stock of goods listed in the Annex 5 at the time of Study, and the prices and brand-name of them. The demands for these goods were also explored by asking the sales situation of specific goods.

5.1.3 Demographic and Economic Characteristics of Survey Communities

a. Demographic Characteristics of Study Area

In terms of ethnicity, Kisii, Gucha and Nyamira are inhabited predominantly by Abagusii people, while Kipsigis people overrepresent in areas Kericho and Bomet. Although male superiority in decision making was identified in both the regions, this tendency is stronger in Kericho/Bomet areas.

As for the level of education, the people of Kericho was found to be the lowest as is indicated in the Annex 3, though one needs to take into account the extreme remoteness of the villages where the Study was conducted. Around half the adults have completed primary school in the Study Area in general except in Nyamira. Approximately one third has completed secondary level in Kisii, Gucha and Bomet, although Nyamira and Kericho has much lower completion rate. Many of those who had completed secondary education, though, have failed to find jobs, as is indicated by the existence of many school leavers.

Average number of household members was found to be around 7 in all the Districts, where Bomet was highest with 7.7 and Gucha was the lowest with 6.65. The children under five constituted approximately 15 to 18 % of household members in the Study Areas, where the number was highest in Kisii with 18.2%, and lowest in Bomet with 15.0%.

Many local people especially those in Kisii areas mentioned that the types of wall and roof of main house within compound are good indicators of the wealth level. Predominant numbers of houses in the Study Area were made of mud-smeared walls, while more than half the households used iron sheet for thatching, though grass-

thatched roof was also used though in less houses. The number of houses within a compound varied, but it was rare to see more than three houses in a single compound.

As for religion, SDA over-represented in Kisii areas in general, while in Kericho AGC stood. In Bomet, Catholic and Full Gospel were most common.

b. Socio-economic Characteristics of Study Area

Some degrees of difference were found between Kisii Areas and Kericho/Bomet in terms of wealth level. Although both the areas were predominantly rural, the result of HHS reveals that plot size was far smaller in Kisii areas than was the case in Kericho/Bomet. As is shown in the Annex 4, only 10% of the households of Kericho/Bomet owned land smaller than 1 acre, as against 23.3% of households in Kisii areas. In fact, the size of the plot allocated for maze, the main crop in this area, was much smaller in Kisii areas than in Kericho/Bomet; 53.3% of households in the former areas owned plots smaller than 1 acre while the number reduced to 20% in Kericho/Bomet areas. This reflects in the difference of the use of the maize produced. Most of the households in Kisii areas were found to consume all the maize they produce, whereas about half the households in Kericho/Bomet sold it at least partly.

As for domestic animals, HHS suggests that cows were widely owned throughout the Study Area, though more than a quarter of the households of Kisii areas did not own any. Chickens were also owned by many households, though three quarters of the households in Kisii areas did not make money from chicken.

A degree of differentiation of wealth level was found not just among Districts but within the same District. In Gucha, for example, 8 out of 20 households did not own cow, while 3 households were found to own more than 5. In terms of land holding, too, 7 were found to own land smaller than 1 acre while 7 households owned 5 acre or more. The differentiation was most evident in Bomet, where 4 households did not own a cow, whereas 8 households were found own 5 cows or more, and 2 households owned more 10 or more. The degree of wealth differentiation was least in Kisii, though one may better interpret this as a result of the general erosion of assets in Kisii District; while the number of household that did not own cows was 8, no households owned more than 3 cows.

Except for some rich households that own wide plots of land and/or a number of animals, commercialized farming is non-existent in the Study Area. In fact, the milk of cows is not marketed very much, and the bulk of crops produced are only domestically consumed in both the areas. To the contrast with this, rich households make considerable amount of money from cash crop such as tea. Among those 12 households that have the cash income of more than Ksh. 50,000, 6 raised most of the income solely from tea, while some others raised money from the combination with some other cash crops or even from lending land. The strong co-relation was found between the amount of cash income and the size of land held. Nonetheless, when

considered the amount of money that the treatment of malaria impose on households, which sometimes costs thousands of shillings as is shown in the later chapter, those 'rich' households that earn more than ten thousand shillings annually may not be in reality as 'rich' as to be able to weather the crises that beset them.

5.2 THE PERCEPTION OF MALARIA

How people perceive malaria, together with such objective conditions as budgetary constraints, conditions people's actual practices as to both the prevention and treatment of malaria. This is because, even when physically and financially do-able or available, people will not actually employ the preventive and curative measures if they find it less necessary or beneficial to do so. Hence the importance of understanding people's perception of malaria in order to frame effective polices.

5.2.1 Perceived Causes of Malaria

It is found by KAP survey that people in the Study Area perceive a variety of factors as causing malaria. Table 5.2.1 shows the list of answers given as causing malaria:

Table 5.2.1 Perceived Causes of Malaria

Mosquito	96	Bad air	29	Kinds of food	3
Rain	18	Poor diet	2	Fatty food	1
Bad food	19	Green roasted maize	4	Maize plants	2
Contaminated water	32	Cold weather	11	Dreams	4
Stagnant water	4	Fly	3	Strange fly	1
Change of climate	2	Rat	1	No idea	11

Note: Multiple answers were allowed.

As is shown above, while almost all the respondents acknowledged that mosquitoes convey malaria, other factors such as contaminated water, rain, bad air, fatty food and flies, too, were regarded as causing malaria. When asked to evaluate the degree of likelihood of things causing malaria, Table 5.2.2 below was obtained:

Table 5.2.2 Likelihood of Factors to Cause Malaria

	Yes	Maybe	No	I do not know	Total
Natural phenomenal	50	12	29	9	100
Inheritance	26	8	58	8	100
Dirty water	81	8	8	3	100
Rain	83	8	7	2	100
Curse or bad spirit	15	10	62	13	100
Mosquito	97	1	2	0	100
Fly	66	10	18	6	100
Moth	46	8	23	23	100
Bar air	70	5	11	14	100
Eating green maize	56	8	26	9	100

Note: Respondents were asked to choose either of the four optional answers.

Along with mosquitoes, rain and dirty water were regarded as highly likely to cause malaria widely in the Study Area. 'Natural phenomena', in the sense of a factor that is beyond the control of human efforts, were considered to causes malaria by half the respondents. Insects such as fly and moth were also regarded by about half the respondents as causing malaria. Interestingly, while such supernatural factor as 'bad air' was regarded by many to cause malaria, rather artificial factors like 'curse' were not regarded by many to cause malaria. Green maize was raised by half the respondents as causing malaria.

Table 5.2.3 Perceived Causes of Malaria (by District)

District	Natural phenomena				Inheritance				Dirty water			
	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea
Kisii	13	1	5	1	8	0	11	1	18	0	2	0
Gucha	19	0	1	0	12	2	5	1	20	0	0	0
Nyamira	11	2	5	2	1	1	16	2	17	2	0	1
Kericho	2	3	11	4	3	2	15	0	9	4	6	1
Bomet	5	6	7	2	2	3	11	4	17	2	0	1
Total	50	12	29	9	26	8	58	8	81	8	8	3
	Rain				Curse or bad spirit				Mosquito			
	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea
Kisii	17	1	2	0	5	2	11	2	20	0	0	0
Gucha	18	2	0	0	8	3	8	1	19	0	1	0
Nyamira	18	1	1	0	0	5	12	3	20	0	0	0
Kericho	16	2	2	0	2	0	16	2	19	0	1	0
Bomet	14	2	2	2	0	0	15	5	19	1	0	0
Total	83	8	7	2	15	10	62	13	97	1	2	0
	Fly				Moth				Bad air			
	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea
Kisii	13	1	4	2	4	1	10	5	15	0	3	2
Gucha	18	1	1	0	12	2	3	3	17	1	1	1
Nyamira	18	1	1	0	10	2	2	6	15	1	3	1
Kericho	7	4	7	2	10	1	5	4	13	2	1	4
Bomet	10	3	5	2	10	2	3	5	10	1	3	6
Total	66	10	18	6	46	8	23	23	70	5	11	14
	Eating green maize											
	Yes	Maybe	No	No idea								
Kisii	13	0	7	0								
Gucha	11	1	5	3								
Nyamira	14	2	2	2								
Kericho	14	0	4	2								
Bomet	4	5	9	2								
Total	56	8	27	9								

An interesting pattern emerged when looked on the district-basis. As will be shown in Table 5.3 above, many people in Kisii areas agreed that malaria can be caused by human acts or some supernatural power, whether curse or inheritance or bad air. Against this, only very few people of Kericho/Bomet see these factors as causing malaria.

Generally speaking, though, people in both the areas seemed to be ambiguous about whether malaria can be caused by the supernatural factors, which is indicated by the result that the people of the Study Area in general regard it highly likely that bad air cause malaria. In fact, the comments below were heard during FGD at least once in all occasions:

"Bad air after a person died will make you feel sick." (a businessman of Kisii)

Natural things that are related to water such as dirty water or rain are perceived by many to be highly likely to cause malaria, except for the case of dirty water in Kericho. Many people perceived it highly likely that eating green maize in the sense of eating insufficiently cooked maize can cause malaria. Living agents such as mosquitoes, flies and moths were also perceived by many people in the Study Area in general as having high possibility of causing malaria, though people are less convinced than for the case of agents related to water or food except in the case of mosquitoes.

The difference of wealth level was found to be insignificant as to what was perceived to cause malaria. As Table 5.2.4 shows, respondents who answered favorably when asked about the possibilities of rain or dirty water causing malaria are equally distributed among those of different wealth level. Rich respondents who answered yes or maybe to the question of whether fly or moth can cause malaria even exceeded in ratio those respondents of poor or middle-class household. Little difference was found in terms of supernatural power as the causes of malaria.

Table 5.2.4 Perceived Causes of Malaria (by Wealth Level)

	Natural phenomena				Inheritance				Dirty water			
	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea
Rich	11	4	5	0	5	2	10	3	16	2	1	1
Middle	21	4	9	5	10	3	25	1	32	2	4	1
Poor	18	4	15	4	11	3	23	4	33	4	3	1
Total	50	12	29	9	26	8	58	8	81	8	8	3
	Rain				Curse or bad spirit				Mosquito			
	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea
Rich	17	2	1	0	2	3	12	3	19	1	0	0
Middle	32	3	3	1	10	3	22	4	38	0	1	0
Poor	34	3	3	1	3	4	28	6	40	0	1	0
Total	83	8	7	2	15	10	62	13	97	1	2	0
	Fly				Moth				Bad air			
	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea	Yes	Maybe	No	No idea
Rich	15	2	3	0	11	2	4	3	13	0	3	4
Middle	26	1	9	3	16	3	9	11	24	3	5	7
Poor	25	7	6	3	19	3	10	9	33	2	3	3
Total	66	10	18	6	46	8	23	23	70	5	11	14
	Eating green maize											
	Yes	Maybe	No	No idea								
Rich	12	2	4	2								
Middle	23	1	12	3								
Poor	21	5	11	4								
Total	56	8	27	9								

5.2.2 Perceived Symptoms of Malaria

This confusion as to the cause of malaria has a lot to do with the confusion about the perceived symptoms of malaria. As is shown in Table 5.2.5, people in the Study Area in general perceived a variety of factors as symptoms of malaria, ranging from high fever or headache to vomiting, diarrhea or coughing.

Headache and fever were the symptoms that were most often cited. Diarrhea, vomiting and joint pain were also frequently mentioned as symptomatic of malaria. Regional differences between Districts were found not to be very significant in this regard; headache and fever were mentioned most often in all the five Districts. Interestingly, fever was mentioned only by 17% of respondents in Bomet as symptomatic of malaria.

Table 5.2.5 Perceived Symptoms of Malaria (by District)

	Kisii	Gucha	Nyamira	Kericho	Bomet	Total
Fever	17	17	15	14	9	72
Headache	13	20	16	16	15	80
Backache	4	4	1	3	0	12
General bodily weakness	5	3	2	2	2	14
Joint pain	10	11	13	8	7	49
Abdominal pain	9	7	6	4	6	32
Vomiting	7	14	11	10	7	49
Diarrhea	0	9	7	1	2	19
Mental disorder	2	0	0	1	5	8
Convulsion	2	1	1	0	0	4
Loss of appetite	1	1	1	0	0	3

Note: Multiple answers were allowed.

What needs to be stressed is that, although these symptoms cited are indeed those that are often experienced by the patients of malaria, it seemed that the people in the Study Area almost automatically associate these physical disorder as symptomatic of malaria. In fact, the comments like below makes one wonder whether all the physical disorder perceived to be symptomatic of malaria are really caused by 'malaria':

"Malaria in pregnancy - I do not know if it is caused by a foreign body she is carrying. And if she delivers, she becomes well." (a female farmer of Nyamira)
"You can vomit like this grass green and when you vomit yellow, you have finished (to drive away agents of malaria) from your body." (a female farmer of Kisii)
"When one gets stomach upset and vomits, it relieves malaria." (a male teacher of Bomet)

Many respondents of HHS included various kinds of pain-killer as among the curative drugs for malaria. The comments obtained during FGD indicate the confusion of simple headache with malaria held by local people in the Study Area;

"My child was infected by malaria and it got well, but normally when I develop headache, I swallow aspirin." (a female farmer of Bomet)

Many attendants of FGD, especially females, cited they use herbs which induce malaria patient to 'vomit malaria'. Although some sorts of herbs may work to cure

malaria in certain occasions, it becomes questionable whether all the reported cases were actually 'malaria' when considering these confusions about malaria symptoms, like in the case below:

"I used 'sorget' (herbs) - you boil it and put your head to the steam, when one sweat it clears the disease." (a female farmer of Bomet)

With these reports of 'malaria' episode, it is reasonable to assume that a considerable degree of confusion as to the symptoms of malaria prevails in the Study Area, where one who suffers the kinds of physical disorders which are often experienced by malaria patients is automatically regarded as a malaria patient.

This misperception about symptoms of malaria has a profound implication towards what is perceived to cause malaria. As such physical disorders as diarrhea, vomiting and abdominal pain were considered as symptomatic of malaria, people naturally consider that 'malaria' can be caused by anything that can cause such symptoms, including contaminated water or fatty food. Behind the comments below, exists this kind of chain of association:

"We have been told to boil water so that we cannot become sick of malaria." (a female social group leader of Kisii)

Although boiling water or avoiding improperly cooked food is not bad in itself, this association of stomach problem with malaria was found to have a profound negative implication to the people's attitudes and practice towards the prevention and treatment of malaria, as will be argued later.

5.2.3 Local Classification of Malaria

The KAP survey explored how people distinguish malaria from other diseases and classify malaria into different sub-sets under malaria. In other words, local taxonomy of malaria, by which to put different symptoms under specific categories and sub-categories to which specific causes and curative measures are attributed, was explored. The comments below that came up during FGD indicate that the term 'malaria' is used in the Study Area as referring to a large category of diseases under which many different kinds of malaria are classified;

"Malaria in pregnancy is unique, because you do not feel like eating. You feel weak and it can make you abort or die." (a female farmer of Nyamira)
"There is malaria of brain which makes a person turn mad." (a male farmer of Gucha)
"There is malaria of stomach with severe abdominal pain. When given tablets, he vomits, has diarrhea and feels well." (a female farmer of Nyamira)
"It was in two categories, one could have appetite and another have loss of appetite." (a male farmer of Bomet)
"There is malaria of back which can make your joints to ache and you are taken to hospital." (a male farmer of Gucha)

Indeed, the results of HHS reveals that the people in the Study Area have a number or names that refer to different 'kinds of malaria'. The names most often cited in Gusii-speaking areas were 'essosera' and 'omokunguru', while 'esset' and 'cheptigonit' came up in Kipsigis speaking areas. However, it is wrong to assume that these terms are used to describe different 'kinds of malaria', each of which is associated with distinctive causes and actions to be taken, because they refer to 'malaria' as an emblematic, general category but not specific sub-categories of malaria. The attendants of FGD mentioned that 'Omokunguru' and 'Essosera' mean the same thing and can be used interchangeably with the term 'malaria', although the former strictly speaking refer to 'yellowish thing' while the latter mean 'greenish thing'.

In categorizing different kinds of malaria, the attendants of FGD simply put adjectives to these terms for differentiation. In fact, people distinguish malaria either using bodily parts, like 'malaria of brain', 'malaria of stomach' or 'malaria of back', or using the degree of severity, like 'mild malaria' and 'severe malaria'. Although in-depth research is required to say conclusively, it is fair to assume that these local terms such as above refer to 'malaria' in general as emblematic terms, which needs adjectives in order to specify the kinds of malaria.

Although it was found that the people in the Study Area classify malaria based on the degree of severity or the name of body parts, no systematic classification was found among the different categories of malaria.

Table 5.2.6 shows the list of symptoms of different kinds of malaria that were cited during HHS each District. Although other kinds of malaria such as 'malaria of back' sometimes appeared, only the above four are touched because the other categories were only rarely cited. Table 5.2.7 describes the classificatory features of different 'kinds of malaria', with their symptoms, causes and actions to be taken for each of them.

No distinctive features can be found from the categorization, although some trends is identifiable. Such categories of symptoms as fever, headache, abdominal pain, diarrhea and vomiting were raised as symptomatic of all kinds of malaria. Stomach/abdominal problems, for example, were mentioned as symptomatic of all kinds of malaria including brain/cerebral malaria, although headache was sometimes not mentioned like in the case of malaria of stomach/diarrhea/abdominal pain. Although the words 'brain malaria' or 'stomach malaria' did not appear in the HHS of Kisii, this does not mean such concepts do not exist in Kisii, because these terms turned up often during FGD.

When looking at specific linkages of causes, symptoms and curative actions to be taken for different kinds of malaria in each District, the unsystematic nature of classification of malaria becomes even more obvious. As Table 5.2.7 indicates, 'mild malaria,' which are characterized by fever, headache, joint and abdominal pains, is perceived to be caused by, mainly, mosquitoes, contaminated water and bad food, in the same way is cerebral malaria perceived. Actions to be taken are equally similar.

Both the kinds of malaria can be cured with drugs available at local shops nearby, while some prefer to go to health care facilities such as hospitals or dispensaries.

Table 5.2.6 Perceived Symptoms of Malaria (by Kind of Malaria, by District)

	Kisii	Gucha	Nyamira	Kericho	Bomet	Total
Mild/general malaria						
Headache	11	14	12	8	2	47
Backache	4	1	1	1	0	7
Fever	16	10	9	4	1	40
General bodily weakness	4	1	1	1	2	9
Joint pain	6	8	5	5	1	25
Abdominal pain	4	5	2	2	0	13
Vomiting	4	4	3	4	4	19
Diarrhea	0	4	1	1	0	6
Dizziness	1	5	4	0	0	10
Coughing	1	4	4	0	0	9
Stomachache	0	0	1	1	0	2
Mental disorder	0	0	0	0	0	0
Convulsion	0	0	0	0	0	0
Loss of appetite	0	0	0	0	0	0
Severe malaria						
Headache	2	2	4	6	10	24
Backache	0	2	0	2	0	4
Fever	1	4	6	5	6	22
General bodily weakness	1	2	0	0	0	3
Joint pain	4	2	7	3	5	21
Abdominal pain	3	2	2	2	6	15
Vomiting	3	7	7	4	7	28
Diarrhea	0	3	3	0	0	6
Dizziness	2	5	5	0	0	12
Coughing	1	1	1	0	0	3
Stomachache	1	3	3	0	0	7
Mental disorder	2	0	0	0	2	4
Convulsion	2	1	1	0	0	4
Loss of appetite	1	1	1	0	0	3
Head/cerebral malaria						
Headache	0	4	0	2	3	9
Backache	0	0	0	0	0	0
Fever	0	2	0	1	2	5
General bodily weakness	0	0	1	1	0	2
Joint pain	0	0	1	0	1	2
Abdominal pain	0	0	0	0	0	0
Vomiting	0	1	0	2	0	3
Diarrhea	0	1	0	0	2	3
Dizziness	0	0	1	0	1	2
Mental disorder	0	0	0	1	3	4
Malaria of stomach/ abdominal pain						
Headache	0	0	0	0	0	0
Backache	0	1	0	0	0	1
Fever	0	1	0	0	0	1
General bodily weakness	0	0	0	0	0	0
Joint pain	0	1	0	0	0	1
Abdominal pain	0	0	2	0	0	2
Vomiting	0	2	1	0	0	3
Diarrhea	0	1	3	0	0	4
Dizziness	0	0	1	0	0	1
Stomachache	0	1	0	0	0	1
Mental disorder	0	0	0	0	0	0

5.3 HEALTH SEEKING BEHAVIOURS

5.3.1 Herbalists and Herbal Treatment

It was found that there is a variety of local herbs in the Study Area, as is listed in Annex 5. Herbs are picked up and dozed either by professional herbalists or by knowledgeable persons within a community.

From FGD emerged a highly mixed attitude towards the herbal treatment and herbalists felt on the part of local population. Many of the attendants of FGD, especially male ones, took a negative line to herbalists, criticizing them on a number of grounds. According to them, herbalists are visited only as a last resort, only after all the other measures have failed to cure. For example, we have comments like below:

"If I have failed from various hospitals I now decide to go to 'Keinyeji' (herbalist)." (a male farmer of Kenyenya)
"Those who wasted time on a 'muarobaini' (a kind of herb) and delayed to go to the hospitals simply die." (a male businessman of Masimba)
"Some people take herbs and die." (a male attendant of Masosa)
"The herbs might be poisonous." (a male attendant of Masosa)
"Before going for treatment, you are not sure if it is malaria." (a male attendant of Masosa)

Some attendants of FGD did not defy herbal treatment itself, although acknowledged that herbal treatment is losing its efficacy due to various reasons:

"Nowadays the herbs do not treat malaria, because we have used them for a long time." (a male chancellor of Masimba)
"There is no specialized herbalists who know the dosage." (a male attendant of Masosa)
"The bushes where herbs were got from are no longer there." (a male attendant of Masosa)

Behind the negative attitudes towards herbal treatment lies the fear of witchcraft, which was often expressed. Another reason why herbs are avoided is the possible over-dehydration. As the perceived efficacy of herbs rests on its effect on inducing vomiting and diarrhea, which drain out harmful agents, the fear is a real one. This is especially so nowadays when, as the comment above indicates, the knowledge as to the appropriate use of herbs is being lost.

Against these negative views, which were mainly expressed by male attendants, rather positive views were put forward by almost all the female attendants. In fact, comments like below were often heard:

"I took 'cheroriet' (herbs), I had diarrhea and got well." (a female farmer of Kapkures)
"I had my child (sent) to the grandmother who gave some herbs which induced diarrhea and my child got well." (a female teacher of Nyambugo)

There were also male attendants who hold positive views to the use of herbs, like:

"There is 'muarobaini' which you take when you are having malaria, it will disappear." (a male farmer of Moticho)
"I personally used traditional herbs and got well, my wife too used the same with injection and is well." (a male farmer of Koisagat)
"There is this tree known as 'omobamba'. You boil it and take it now it will act by making you vomit. After vomiting, then diarrhea follows. After that, you stay even for 2 years without becoming sick of malaria." (a male attendant of Bogiakumu)
"We use local plants 'esurancha'. You will not be bitten by mosquitoes." (a male attendant of Masosa)

The mixed views towards herbal treatment and herbalists are reflected in the actual behaviors around herbs and herbalists. The KAP survey revealed that many attendants of FGD in the Study Area, at least when it comes to the treatment of malaria, prefer bio-medical treatment[2] to traditional measures such as herbal one. In fact, HHS revealed that only 14 (5%) out of 270 malaria cases within one month prior to the Study[3] were treated by herbalists.

When it comes to the medical treatment/advice in general, though, things become a bit more mixed. While 47% of respondents answered that they had used herbalists at least once, as is shown in Table 5.3.1, only 27% of the respondents answered they go to herbalists often or sometimes. No rich households were found to go to herbalists often, while about a third of poor and middle-class households use herbalists either often or sometimes. On the other hand, the greater share of rich households had never tried herbal treatment than had poor or middle-class households. Interestingly, poor people do not go to herbalists often. Actually, according to HHS, herbal treatment is not necessarily cheap, which will be argued later.

Table 5.3.1 Use of Herbalists in General Health-Seeking Behaviors

	Rich	Middle	Poor	Total	Good access community	Poor access community
Often	0	4	1	5	3	2
Sometimes	2	10	10	22	6	16
Rarely	3	7	6	16	9	7
Never	15	19	19	53	20	33
N/A	0	0	4	4	2	2
Total	20	40	40	100	40	60

The accessibility to modern health care facilities (HCFs) does not make a significant difference, although it might be expected that communities that are denied of easy access to HCFs resort more often to herbal treatment that is locally available. The results of HHS revealed that herbal treatment is not necessarily available easily. Thirty-four (87%) out of 39 respondents of HHS who have used herbalists cited that herbal services are available within walking distance, and 19 (48%) among the 39 said visiting herbalists does not take more than fifteen minutes. On the other hand, 5 (13%)

[2] Bio-medical treatment here refers to the system of medicine typical of the modern West, as distinct from the indigenous medical system such as herbal one.
[3] In some cases when no malaria case occurred within one month prior to the survey, cases within the past two months were recorded to obtain greater numbers of cases.

respondents said that visiting herbalists nearby takes more than one hour by mantatu. The average distance in time to herbalists nearby was 15.0 minutes in good-access community and 93.5 minutes in poor access-community. This tells that many poor-access communities are denied of easy access not only to modern HCFs but to herbal treatment as well.

Herbal treatment is not necessarily cheap either. Although 12 (25.5%) out of 47 respondents who had used herbalists paid nothing and 6 paid in kind (12.7%), another 12 respondents paid more than Ksh. 100, and one of them even paid more than Ksh. 500. As one female farmer of Bogiakumu, said, "Even those who use the local herbs it is dearly expensive- if it is Ksh. 300 at the hospital, it is also Ksh. 300 at the Kienyeji (herbalist)". This finding requires us to rethink the commonly held view that herbal treatment is easily and cheaply accessible and can be an effective alternative to bio-medical treatment which is relatively expensive and so beyond the reach of poor households.

As for the purpose of visits, Table 5.3.2 shows that 25.5% of respondents said they went to herbalists for the treatment of malaria, and 23.6% for the treatment of stomach problem. This is understandable, considering that, as was argued in the previous chapter, while some types of malaria is perceived to be caused by agents that operate within the patient's stomach, the perceived efficacy of herbs lies in their capability to induce one to vomit or have diarrhea and thus drive away agents of diseases. The treatment of physical problems such as madness or leg problem that have no direct relationships with stomach problem were also treated by herbalists.

Table 5.3.2 Purpose of Visiting Herbalists

	Rich	Middle	Poor	Total	Good-access community	Poor-access community
Malaria	1	5	8	14 (25.5%)	2	12
Stomach problem	2	8	3	13 (23.6%)	6	9
Thrush	0	2	4	6 (10.9%)	5	0
Abdominal pain	0	2	2	4 (7.2%)	3	1
Cold	0	2	2	4 (7.2%)	3	1
Leg problem	1	1	0	2 (3.6%)	1	1
Coughing	1	1	0	2 (3.6%)	1	1
Chest problem	1	1	0	2 (3.6%)	0	2
Diarrhea	1	0	0	1 (1.8%)	1	0
Madness	0	0	1	1 (1.8%)	0	1
Others	1	3	2	6 (10.9%)	1	1
Pneumonia	0	0	0	0 (0.0%)	1	0
Headache	0	0	0	0 (0.0%)	1	0
Allergy	0	0	0	0 (0.0%)	0	1
Total	8	25	22	55 (100.0%)	25	30

Wealth level makes some degree of difference. While many poor people go to herbalists for the treatment of malaria, very few people of rich households visit herbalists for this purpose. This may mean that people of rich households do not go to herbalists simply because they can choose to go to more expensive HCFs, which is not

the case for poor people, although, as is argued above, herbal treatment is not necessarily cheap.

It is interesting to find that far more numbers of people in the poor-access areas visited herbalists for the treatment of malaria than did those in the good-access areas, which contradicts the above raised fact that the distance to HCFs makes little significance to the frequency of the use of herbalists. This may reflect that the people in the Study Area prefer to go to modern bio-medical HCFs in the case of malaria, which is not necessarily the case for the other sorts of physical problems. When the physical problems is perceived to be malaria, those in the poor-access areas go to herbalists, because bio-medical HCFs are distant, even though they wish to go to the latter places. Interestingly, little difference were found in terms of stomach problems, which is more directly related to the physical problems to which herbal treatment is believed to be, and probably actually is, effective. People of good-access areas go to herbalists for the treatment of thrush, for which people who live in poor-access areas do not go to herbalists. Generally speaking, though, not very significant difference was identified in terms of the accessibility to HCFs.

The medical services of herbalists are positively evaluated generally speaking. As Table 5.3.3 shows, 12% of respondents answered medical services are very good and 32% said good, as against the only 5% who remarked medical services are very poor. Little meaningful difference among the districts were found, except that the lowest profile was put in Bomet where no respondents evaluated herbal services as very good while 45 evaluated as either very poor or poor. In terms of wealth level and accessibility, too, little differences were identified. This at least partly reflects the fact that herbal treatment is not necessarily cheap and easily available.

Table 5.3.3 Evaluation of the Medical Services of Herbalists

	Very good	Good	Average	Poor	Very poor	N/A	Total
Kisii	2	7	1	2	0	8	20
Gucha	4	5	3	1	1	6	20
Nyamira	4	7	2	2	0	5	20
Keriho	2	7	2	2	1	6	20
Bomet	0	6	3	6	3	2	20
Good-access	6	14	4	3	1	12	40
Poor-access	6	19	7	10	4	15	60
Rich	3	3	2	4	2	6	20
Middle	6	12	4	5	1	12	40
Poor	3	17	5	4	2	9	40
Total	12	32	11	13	5	27	100

Table 5.3.4 shows the list of complaints raised by respondents of HHS. Seventy-one percent of the respondents do not find any complaint to the services of herbalists, while 13% of respondents answered the services are not effective. As is mentioned above, herbalists are not necessarily cheap source of medical treatment, which was complained by 4% of the respondents.

Table 5.3.4 Complaints on Herbalists

	Kisii	Gucha	Nyamira	Kericho	Bomet	Total
Expensive	3	1	0	0	0	4
Not effective	1	2	4	1	5	13
Absence of qualified staff	0	2	0	3	0	5
May cause other problems	0	0	1	0	0	1
Lack of equipment	0	0	1	0	0	1
Attitude of staff	0	2	2	0	1	5
N/A	14	7	6	10	10	47
None	2	8	6	6	2	24
Total	20	22	20	20	18	100

As is clear from the results shown above, a mixed picture emerged from HHS in terms of the use of herbs and the evaluation of herbalists, which goes in line with the equally mixed attitudes towards herbal treatment that emerged from FGD. The political statements that tend to regard herbal treatment only very poorly surely matter here, as is indicated by the comments raised by a male farmer of Naymbago: "The chief warned us not to use herbs."

The attitudes of many people in the Study Area towards herbal treatment must be highly influenced by these negative attitudes and statements put by some influential persons in the communities. Furthermore, these politically geared negative attitudes surely influence one's choice of actions among alternative means of treatment together with such objective constraints as financial one and circumstantial constraints like the degree of severity.

This implies that herbalists might be used more often than these results indicate. As a male farmer of Bogiakumu put it, "Because the child is with the mother, most of the time it is the mother who decides to take the child to the hospital". In fact, many attendants of FGD, both males and females, acknowledged that mothers assume the responsibilities of first-hand health management of households. Given the positive attitudes held by female attendants of FGD, which derived from their own experiences that the herbal treatment did work, it is highly likely that herbalist are frequently used especially for diseases that are perceived to be related to stomach problem. The fact that, as is mentioned in the first chapter, male adults tended to intervene in the questioning of HHS even when the main respondent was female may have also colored negatively.

In fact, given the confusion about symptoms of malaria, it is understandable that people consider 'malaria', which may be a mere stomach upset in reality, can be cured by herbal treatment. We therefore suggest that further in-depth study about herbalists and the nature of herbal treatment be employed. The study should look into both the nature of treatment and the actual costs herbal treatment incurs for patients. Two rationales can be considered. Firstly, as is mentioned earlier, although it is often argued that traditional healers like herbalists can be a cheap alternatives to HCFs, the result of the Study shows that herbal treatment in the Study Area is not necessarily cheap one of which is available within walking distance. It is necessary to stop

presuming that traditional health-care services must be cheap and rather explore the actual structure of service fees charged by herbalists.

Also, given the complaints that often came up during FGD that herbal treatment tend to over-dehydrate and cause problems, the actual pattern of dosage of herbs should be explored so that the appropriate use of herbs should be encouraged to people. This is especially important because, as is indicated during FGD, many 'professional' herbalists are disappearing and appropriate knowledge about herbs is being lost. Also, given the confusion about symptoms of malaria, people who are infected with real malaria may try herbal treatment, only to delay the effective treatment to be taken. As herbal treatment can be a cheap alternative on a variety of physical problems, if not on malaria, it is important to know what is actually happening around herbal treatment in order to frame an effective and appropriate policies so that not just the resources currently under-utilized can be effectively mobilized, but the problems caused by misuse of herbs can be solved.

5.3.2 Traditional Birth Attendant

It was found that Traditional Birth Attendant (TBA) is not widely used for the delivery of child. In the Study Area, TBA is more often used in Kericho/Bomet than in Kisii areas. As is shown in Table 5.3.5 and Table 5.3.6 below, TBA was never used by more than half the respondents of HHS in Kisii areas, while less than three quarters of those in Kericho and Bomet had used TBA for delivery. In Kericho in particular, more than half the respondents had used TBA, though the considerable remoteness of the Study Sites of Kericho should be taken into account.

Table 5.3.5 Frequency of the Use of TBA (by District)

	Kisii	Gucha	Nyamira	Kericho	Bomet	Total
Often	0	2	1	6	5	14
Sometimes	3	1	5	5	1	15
Rarely	2	0	1	2	2	7
Never	13	17	13	6	7	56
N/A	2	0	0	1	5	8
Total	20	20	20	20	20	100

Table 5.3.6 Frequency of Use of TBA (by Wealth Level and Accessibility)

	Rich	Middle	Poor	Total	Good-access community	Poor-access community
Often	2	6	6	14	2	12
Sometimes	2	5	8	15	5	10
Rarely	2	1	4	7	1	6
Never	13	25	19	57	30	26
N/A	1	3	3	7	2	6
Total	20	40	40	100	40	60

As is expected, poor households use more often TBA than households of higher wealth level, although a few rich households used TBA for delivery. Accessibility considerably matters here, in that 12 out of 60 households in poor-access communities had used TBA in the past, as against only 2 households in good-access areas. This is interesting, because no significant difference was found as to the distance to TBA between good-access communities and poor-access ones; for 91% of households in poor-access areas, TBA is available within 15 minutes on foot, as against 86% for those in good-access community.

In terms of costs of delivery service, TBA offers a cheap means of delivery services compared with the service available at hospitals. Twenty out of 43 households that had ever used the service of TBA did not pay anything, while 5 respondents gave food or tea. There are some expensive cases, though, where two respondents paid Ksh. 500 and one did Ksh. 300 to TBA, which is almost equal to delivery services at established HCFs which cost, even in expensive cases, from Ksh. 100 to Ksh. 300.

As shown in Table 5.3.7, most frequently cited complaints on TBA were their lack of qualification as a professional birth-attendant. Related to the informal manner of operation is the people's fear of causing another diseases, unhygienic environment and lack of drugs. Although these complaints were raised, it is fair to argue that the people in the Study Area do not find much serious complaints in the services of TBA, which is reflected in the relatively small numbers of respondents who put forward complaints.

Table 5.3.7 Complaints on TBA

Absence of qualified staff	14	Lack of drugs	3	Expensive	1	Not effective	2
Fear of causing another problem	4	Unhygienic environment	4	Lack of equipment	2		

Despite the complaints of their informality, TBA is not negatively regarded, as is shown in the Table 5.3.8, in which only 16 out of 100 respondents evaluated the service as either poor or very poor, though the number who described the service very good, 8, is also low. Regional differences were found not to be significant. Wealth level makes considerable differences in that rich people do not highly evaluate the services of TBA, while poor people tended to put higher profile to them.

Table 5.3.8 Evaluation of Services of TBA

	Very good	Good	Average	Poor	Very poor	N/A	Total
Kisii	0	10	5	4		1	20
Gucha	3	10	2	0	1	4	20
Nyamira	3	4	5	3	1	4	20
Keriho	1	6	3	0	3	7	20
Bomet	1	4	4	2	2	7	20
Rich	0	2	2	13	0	1	20
Middle	5	13	7	5	3	7	40
Poor	3	16	8	3	0	10	40
Good-access	4	11	4	4	4	13	40
Poor-access	4	23	15	5	3	10	60
Total	8	34	19	9	7	23	100

From the survey findings it is fair to argue that TBA is used as a cheap alternative to many of the people in the Study Area, without many complaints raised by the clients except for their informality. However, it is also true that TBA is not so frequently and widely used compared with hospitals. Due to time constraints, the KAP survey could not explore much deeply into the factors behind the relatively infrequent use of TBA. Also, their costs structure and their actual activities, especially in the field of maternal health care, remain to be further studied. As TBA can be a cheap alternative in MCH, in-depth study into the areas raised above is recommended. Doing so will allow us to look more critically the strengths and weaknesses of TBA in the Study Area so that its capacity as a cheap and easy means of MCH can be enhanced.

5.3.3 Health Care Facilities (HCF)

There are various kinds of HCFs in the Study Area, ranging from such rural-based and relatively cheap facilities as Rural Health Centers, Chemists and Dispensaries[4] to usually town-based and relatively expensive facilities like Government hospitals e.g., District Hospitals, Mission hospitals and Private hospitals. Table 5.3.9 shows the relative costs of each of the HCFs available in the Study Area.

Mission hospitals and private clinics incur relatively high amount of costs. For the latter facility service fees constitute the large portion of the total costs, while in the former case both transportation costs and service fees are expensive. A bulk of transportation costs is required to go to Government hospitals, which are located only in urban areas. No respondents of good-access communities paid money to visit private hospitals, which reduces the amount of the total cost. As is expected, local chemists, dispensaries and Health Center, which are cheap in terms of both service

[4] Although dispensaries are supposed to provide medical services free of charge, it was found that In the Study Areas, many dispensaries charged service fees to clients.

fees and transportation costs, offer cheap source of medical services for the people in the Study Area.

Table 5.3.9 Costs of HCFs for Both Transportation and Treatment

	Poor-Access Communities				Good-Access Communities			
	Time (minutes)	Trans. cost (Ksh)	No trans. Cost (No. of cases)	Total cost (malaria)	Time (minutes)	Trans. cost (Ksh)	No trans. cost (No. of cases)	Total cost (malaria)
Chemist	55.5	60.4	18	191.6	21.9	31.6	22	156.8
Private clinic	50.9	34.0	22	625.7	20.3	31.6	0	418.6
Dispensary	39.8	21.6	12	25.3	19.5	16.1	14	22.5
Health centers	81.9	32.0	18	40.0	22.5	10.2	16	50.6
Gov. Hosp.	101.7	82.1	2	281.2	62.3	65.2	0	157.6
Mission Hosp.	71.3	53.0	3	1386.0	53.3	50.2	0	1266.2

Note 1: No cost means that visiting HCFs does not incur cost for transportation.
Note 2: For comparison, total cost listed here is only those that incurred for the treatment of malaria.

Table 5.3.10 shows the frequencies of the use of each HCF in each District reported by respondents of HHS. Local chemist was found to be used most frequently by the people in the Study Area in general, which was visited either often or sometimes by 64 out of 100 respondents. Health Centers and local dispensaries came second, where 47 and 41 respondents respectively answered they use these facilities either often or sometimes. Interestingly, those relatively expensive HCFs such as private clinics or mission hospitals are also used frequently, which are visited either often or sometimes by 39 respondents each. The total of 37 respondents either often or sometimes use Government hospitals such as District Hospital. No meaningful regional differences was found except that dispensaries are not used much by people in Kisii District and that Government hospitals are rarely used in Kericho/Bomet.

Interestingly, the number of respondents who answered that they visit often the specific HFCs is approximately the same as the number who answered that they have never visited the HFCs. For example, while 29 of the respondents answered they often visit Health Center, the number of those who answered to have never used Health Centers was 29 as well. The goal of this chapter is to look into the pattern of choice and explore what lies behind it, particularly in terms of actions related to malaria, so that to put suggestions to frame effective policies to improve rural health-care system in the Study Area.

Table 5.3.10 Frequency of the Use of Health Care Facilities

	Often	Some times	Rarely	Never	N/A		Often	Some Times	Rarely	Never	N/A
Chemist						**Private clinic**					
Kisii	5	10	0	3	2	Kisii	3	8	1	3	5
Gucha	6	10	0	4	0	Gucha	0	7	3	9	1
Nyamira	4	14	0	2	0	Nyamira	1	9	5	5	0
Kericho	4	5	7	3	1	Kericho	2	5	4	6	3
Bomet	2	4	7	4	3	Bomet	0	4	7	5	4
Total	21	43	14	16	6	Total	6	33	20	28	13
Dispensary						**Health center**					
Kisii	1	2	1	15	1	Kisii	6	1	0	9	4
Gucha	12	3	0	5	0	Gucha	5	4	2	7	2
Nyamira	5	9	1	5	0	Nyamira	2	3	0	11	4
Kericho	3	1	7	5	4	Kericho	8	7	2	1	2
Bomet	3	2	1	6	8	Bomet	8	3	3	1	5
Total	24	17	10	36	13	Total	29	18	7	29	17
Govt. hospital						**Mission hospital**					
Kisii	6	4	3	3	4	Kisii	3	3	5	9	0
Gucha	0	5	6	9	0	Gucha	1	11	2	6	0
Nyamira	2	12	2	4	0	Nyamira	0	6	4	5	5
Kericho	1	2	4	10	3	Kericho	4	7	8	0	1
Bomet	1	4	10	3	2	Bomet	1	3	4	8	4
Total	10	27	25	29	9	Total	9	30	23	28	10
Herbalist											
Kisii	2	1	0	1	0						
Gucha	10	8	12	10	13						
Nyamira	4	6	1	3	2						
Kericho	4	4	7	5	2						
Bomet	0	1	0	1	3						
Total	20	20	20	20	20						

Table 5.3.11 shows the frequencies of the use of each HCFs according to the accessibility. Little difference was found in this regard among those relatively easily accessible HCFs such as dispensaries and chemists. For example, 20% of those who live in good-access communities visit local chemist often, as against 21% of those of poor-access areas. As the degree of accessibility worsened, the difference gets widened. As for herbalists, as is already argued in the previous chapter, people of poor access areas visit them as often as do those of poor-access areas.

Table 5.3.11 Frequency of Use (by Accessibility)

	Often	Sometimes	Rarely	Never	N/A	Total
Chemist						
Good access	8	22	2	5	3	40
Poor access	13	21	12	11	3	60
Total	21	43	14	16	6	100
Private clinic						
Good access	4	17	3	9	7	40
Poor access	2	16	17	19	6	60
Total	6	33	20	28	13	100
Dispensary						
Good access	9	6	4	17	4	40
Poor access	15	11	6	19	9	60
Total	24	17	10	36	13	100
Health center						
Good access	16	9	1	9	5	40
Poor access	13	9	6	20	12	60
Total	29	18	7	29	17	100
Government hospital						
Good access	0	8	7	18	7	40
Poor access	10	19	18	11	2	60
Total	10	27	25	29	9	100
Mission hospital						
Good access	2	14	7	15	2	40
Poor access	7	16	16	13	8	60
Total	9	30	23	28	10	100
Herbalist						
Good access	3	6	9	20	2	40
Poor access	2	16	7	7	2	34
Total	5	22	16	27	4	74

As for more distant HCFs, a degree of difference can be found; for example, Health Centers are visited often by 40% of the respondents of good-access communities, in contrast to the 21% of those of the poor-access communities. In fact, comments like below that emerged from FGD indicate that distance matters:

"Health Center is far and one has to be carried on a sack (improvised stretcher), so one opt to take drugs from the shop to get a little strength. Another thing is that Health Centers are so packed and the lines are long, so we prefer the Health Center being near us. Also, one may not have money to hire a matatu or even for fare" (male carpenter of Kericho)

However, the accessibility alone is not a determining factor behind the choice of HFC to visit; while 16% of respondents of good-access communities visit mission hospitals often, none of them visit Government hospitals often, even though similar amount of time and money need to be spent to visit the two kinds of HCFs. This suggest that factors other than accessibility merely in the sense of time and cost to be spent to

reach HCFs, e.g., the kinds of diseases, their perceived level of severity, wealth level of each person, etc., also influence one's choice of where to seek for treatment.

In fact, although Health Centers are most often visited by people of both types of communities, and although many Health Centers are located within walking distance, 30% of the respondents who live in poor-access communities and 22.5% of those who live in good-access communities have never visited Health Centers. The same is true to dispensaries; while 42.5% of good-access communities residents and 31.6% of the residents of poor-access communities have never visited dispensaries. Also, although many respondents in both the communities have not visited Health Centers and dispensaries, equally large numbers of respondents have visited these facilities and some have done so often.

As far as malaria is concerned, people are ready to visit everywhere in order to receive appropriate treatment, as will be reported later. It will be fair to argue that the accessibility to HCFs, as a factor independent from other factors, makes little difference in terms of general behavioral pattern. That is to say that accessibility may influence specific health seeking behaviors, but the decision as to where to go for the treatment of a given physical disorder depends on other factors. This is why little meaningful differences can be found as for the cumulative numbers of visits to each of the HCFs in the past. What determines the specific choice at specific contexts will be argued later using how people manage malaria.

Table 5.3.12 shows the survey findings about the implication of wealth level to the health seeking behaviors in the Study Area. Although there is a degree of difference can be found, such that no poor households are reported to have used private clinics, this is only a matter of degree. In fact, only one rich respondent was found to have visited private clinics often, while both poor and rich respondents answered they visit private clinics sometimes. As for reported in the first section, herbalists are used in a similar manner by both rich and poor households. Mission hospitals are used equally frequently by both rich respondents and poor respondents. The same tendencies can be identified as for Health Centers and dispensaries, the two relatively cheap HCFs.

Wealth level is not in the end a determining factor in the choice of where to seek for treatment. In fact, the number of poor households that have often visited Health Centers and dispensaries is the same of those that have never visited there. The fact that the wealth level is in general low in the Study Area explains at least partially this relative insignificance of wealth level. That many households do own some sort of assets such as land or cows, if narrow in area and small in numbers, means that they can make money through selling these assets. Far more important factor in this area is that, as the comments obtained through FGD suggest, people financially help each other in the Study Area, which make it possible even for poor households to manage to make the payment for expensive facilities. Comments like below were indeed obtained:

"People really assist one another in a way that if one was not able, the (community) members could volunteer to contribute some money." (a male teacher of Nyambago)
"Village chief has been of a great help in that he has assisted me in requesting the institution to accept late payment." (a housewife of Nyambago)
"Normally mission hospitals are expensive. I did go there and was not able to pay but the neighbors helped me to raise the amount. I used Ksh. 3,000." (a female farmer of Kapkoros)

Table 5.3.12 Frequency of Use of HCFs (by Wealth Level)

	Often	Sometimes	Rarely	Never	N/A	Total
Chemist						
Rich	3	11	4	0	2	20
Middle	8	20	5	6	1	40
Poor	10	12	10	6	2	40
Total	21	43	19	12	5	100
Private clinic						
Rich	1	11	5	1	2	20
Middle	5	11	10	11	3	40
Poor	0	11	6	16	7	40
Total	6	33	21	28	12	100
Dispensary						
Rich	3	3	3	8	3	20
Middle	11	8	5	10	6	40
Poor	10	6	2	17	5	40
Total	24	17	10	35	14	100
Health center						
Rich	4	3	3	6	4	20
Middle	13	9	3	10	5	40
Poor	13	6	1	13	7	40
Total	30	18	7	29	16	100
Govt. hospital						
Rich	2	7	5	4	2	20
Middle	4	10	9	15	2	40
Poor	4	11	11	11	4	41
Total	10	28	25	30	8	101
Mission hospital						
Rich	3	8	2	5	2	20
Middle	1	11	13	11	4	40
Poor	5	11	8	12	4	40
Total	9	30	23	28	10	100
Herbalist						
Rich	2	2	1	13	2	20
Middle	4	10	6	19	1	40
Poor	1	10	6	19	4	40
Total	7	22	13	51	7	100

Many attendants of FGD mentioned they been successfully allowed delayed payment from private clinics, especially when some friend or relatives work there. This, at least partly, explains why even poor people can visit there at least sometimes. For example, the comment below suggests:

"If I don't have money I can be treated at the private clinic and I can pay later." (a female farmer of Keroka)
"I used over Ksh. 5000 on two children at one point. I requested them (private doctors) to wait as I looked for money." (a male treasury of nursery in Koisagat)
"I went to private clinic and paid Ksh. 520. I asked him to wait as I looked for money - I'm still in debt." (a male restaurant owner of Bomet)

However, community help may not necessarily work smoothly and without problem. Many attendants of FGD indeed mentioned they tended to be heavily indebted. If people become too indebted or have exhausted all the social relationships to rely on, things will become difficult. One female farmer of Bogiakumu indeed mentioned:

"When you don't have even single shilling, you concentrate staying in the house and the malaria becomes big and finally you die." (a female farmer of Bogiakumu)

Nonetheless, it is fair to assume that, although limited, community help can make up for the vulnerability of poor people, which make wealth level less relevant regarding to where to visit for treatment.

This study results indicate that there is no systematic co-relations between the types of diseases and the HCFs to visit. Among a variety of diseases raised, malaria stands most conspicuously, which no doubt tells the seriousness of malaria in this area. As is clear from Table 5.3.13, people in the Study Area visit almost any type of HCF for any kind of disease. The only perceivable tendency is that people tend to go to Health Centers for the treatment of wounds, and to chemist when they have headache, which probably means that these rural based facilities are used for the treatment of every day sorts of physical problems. Other than these, though, no systematic pattern can be identified.

This is especially so when it comes to malaria; all the HCFs are almost equally distributed as places to seek for health, though private hospitals are used by the largest numbers of respondents while mission hospitals are the least. In fact, almost all the sorts of HCFs are raised by at least a few of respondents as places to seek for treatment of any kind of disease. As for herbalists, people resort to them mostly for stomach problem, abdominal pain and thrush, which is understandable with the argument made in the first section. Wealth level was found to make little meaning differences. Regional difference among Districts were also found to make little meaningful differences in terms of the types of diseases and where to seek for treatment.

Table 5.3.13 Use of HCFs (by Type of Disease)

Type of disease	Chemist	Private clinic	Dispensary	Health center	Government hospital	Mission hospital	Herbalist
Backache	1	1	5	1	1	3	1
Headache	16	6	7	2	1	5	0
Malaria	42	50	36	51	42	31	14
ANC	2	0	0	0	0	4	0
Meningitis	0	0	0	1	2	0	0
All conditions	2	3	6	5	2	3	0
Referral	0	0	0	0	4	0	0
Abdominal pain	3	6	0	0	1	4	4
Pneumonia	0	2	3	2	2	2	1
Coughing	6	3	3	3	0	0	2
Thrush	0	0	0	0	0	0	14
Leg problem	2	2	1	0	1	2	2
Diarrhea	4	0	2	0	3	1	0
Stomach problem	3	4	4	1	2	4	15
Delivering	1	2	1	5	6	5	0
Bleeding	1	2	0	0	0	1	0
Immunization	0	0	1	0	0	2	0
URTI	0	0	1	2	2	1	0
Wounds/injury	1	3	0	11	1	0	1
Cold	0	0	0	2	0	0	3
Total	84	84	70	86	70	68	57

This finding is well supported by the comments attendants of FGD made about malaria case management. What emerged from FGD is that the specific behaviors employed by each person are in large part determined by purely personal evaluation about the perceived effectiveness of both specific HCFs, which largely derives from the past experiences of the actual use of the HCFs and the evaluation of the degree of severity of malaria.

Table 5.3.14 shows the relative evaluation of medical services given at each HCF. To note is the high profile put to mission hospital. The total of 84 respondents evaluated the services of mission hospitals as either very good or good, whereas there was only one who said the services are poor. Another expensive HCF, private clinic, is highly regarded; 17 evaluated their services as very good, while 42 answered as good. Local chemists are not regarded as providing very good services, though 57 of the respondents said the services are good. Generally speaking, what emerges from HHS is that the health-care services available in the Survey communities are not regarded as problematic, if not completely satisfactory. No significant difference can be found among people of different wealth level.

Table 5.3.14 Evaluation of HCFs

	Very good	Good	Average	Poor	Very poor	N/A	Total
Chemist							
Rich	2	12	3	0	0	3	20
Middle	8	19	4	4	0	5	40
Poor	3	26	3	0	0	8	40
Total	13	57	10	4	0	16	100
Private clinic							
Rich	6	9	2	2	0	1	20
Middle	5	18	9	3	1	4	40
Poor	6	15	7	4	0	8	40
Total	17	42	18	9	1	13	100
Dispensary							
Rich	0	9	1	2	0	8	20
Middle	6	16	7	0	0	11	40
Poor	2	18	4	1	1	14	40
Total	8	43	12	3	1	33	100
Health center							
Rich	2	6	6	1	0	5	20
Middle	9	19	4	1	1	6	40
Poor	9	21	2	0	1	7	40
Total	20	46	12	2	2	18	100
Govt. hospital							
Rich	1	9	2	1	2	5	20
Middle	2	20	3	0	2	13	40
Poor	5	28	2	0	1	4	40
Total	8	57	7	1	5	22	100
Mission hospital							
Rich	6	9	2	0	0	3	20
Middle	19	10	2	0	0	9	40
Poor	13	17	2	1	0	7	40
Total	38	36	6	1	0	19	100

Table 5.3.15 Complaints on HCFs

Chemist	Expensive; 17	Distant; 5	Cannot treat; 5	Drugs expired; 3	Not effective; 1
Private clinic	Expensive; 37	Distant; 3	Absence of qualified staff; 2	Lack of equipment; 1	Lack of drugs and others; 1
Dispensary	Lack of drugs; 13	Distant; 10	Expensive; 7	Long queue; 7	Attitude of staff; 3
Health center	Lack of drugs; 30	Distant; 8	Long queue; 6	Attitude of staff; 4	Congestion; 3
Govt. Hosp.	Distant; 29	Lack of drugs; 17	Long queue; 16	Congestion; 15	Attitude of staff; 4
Mission Hosp.	Expensive; 27	Distant; 6	Lack of drugs; 3	Cannot treat; 1	Communication problem; 1

That generally speaking people in the Study Area do not negatively evaluate HCFs does not mean that these HCFs are not regarded as without problems. In fact, a number of complaints were raised by respondents of HHS, which is shown in Table 5.3.15. Relatively high profile people put to mission hospitals are, as is easily expected, poised with the complaint of their high costs, which was raised by 27 respondents. Distance is also considered as problematic by 6 respondents, followed by

the lack of drugs. Nevertheless, it will be safe to assume that people highly evaluate the services of mission hospitals. In fact, few attendants of FGD complained of mission hospitals, if only the high costs were deplored.

Private clinic is also regarded as providing fairly well services, though, like mission hospitals, it is complained as expensive. Indeed, the services of private clinic was evaluated as effective and good by many attendants of FGD, like this comment indicates:

"There are those private doctors who pass in the villages; they treated my child and he became well." (a male farmer of Moticho)

Nonetheless, some attendants of FGD did criticize private clinics as of problematic. We have comments like below:

"Me I see the private doctor is after making profit, because he will waste a lot of time on me from consultation. Drugs are sometimes under-dosed." (a female farmer of Masimba)
"The private clinics are too expensive. There are no qualified staff." (a male village elder of Masosa)
"Normally the private clinics don't refer a patient immediately, they only do that in advanced cases and do demand money." (a male secretary of Koisagat)

Lack of drugs is raised as problematic about most of the HCFs even including mission hospitals, which is supported by comments that were obtained from FGD. This, together with the endlessly continuing chain of reference to the upper medical institutions, was raised by many of the attendants as the single greatest problem of many of the HFCs in the Study Area in general. For example, we have comments like below;

"I don't prefer dispensaries, because the drugs are not available." (a male farmer of Moticho)
"At the general hospital there are no drugs, so I cannot waste money there." (a female farmer of Keroka)
"When I visited dispensary, I am prescribed and referred to the chemist to buy drugs, so I go to elsewhere." (a male farmer of Moticho)

The last comment, which was often heard during FGD, may be a factor behind the frequent use of local chemists despite the severe criticism about the level of service and costs that are almost equal to visiting Health Centers.

People in the Study Area complained that drugs are not just available; the drugs provided tend to be insufficient and sometimes even out of expiry date, like the comment indicates:

"At the private clinic, they under-dose drugs in order to serve many patients." (a male post-master of Keroka).

Furthermore, some cases of misuse of drugs are also reported, like the comment below indicates:

"In dispensaries, they may say there are no drugs, but may say I have some for somebody - in that they are linked to private clinics and hence refers you to the private clinic or demand some money before giving drugs." (a male farmer of Koisagat)

Together with the complaints listed above, Government hospitals like District Hospitals and Health Centers are often criticized of the slow manner of treatment. Comments like below were indeed obtained from FGD:

"Me what I experienced is that the services at the Government hospitals is too slow, because I took my child to the hospital and I was told that my child did not have enough blood and the process took three days before he was added the blood." (a male farmer of Bogiakumu)
"When you take a patient to a general hospital, it takes time. So I decide to take my patient to a private clinic, because the services are fast." (a male farmer of Keroka)

Congestion was also criticized, like the following comment indicates:

"The staff at the dispensary are only two and the numbers of patients are 50. How will they manage all of them? So I opt to go elsewhere." (a male farmer of Moticho)

Attitude of staff and lack of qualification on the part of staff of HCFs are also often complained. In fact, many attendants of FGD were skeptical of the knowledge and expertise of many of the staff of HCFs, particularly those of dispensaries, Health Centers and private clinics.

Despite these negative comments, however, it is also true that some attendants highly evaluated the services given by the HCFs that were strongly criticized by many other attendants. In fact, the same kind of contradiction as was seen about herbalists was also identified about these HCFs. For example, while many criticized private clinic as too business-minded or lacking qualification and expertise, some others highly evaluated the services of private doctors, such as below:

"There are those private doctors who pass in the villages; they treated my child and he became well." (a male farmer of Moticho)

That people in the Study Area hold contradictory evaluations to each of the HCFs indicates that HCFs at different places, even though all of them come under the same category, offers different quality of services, which influences the evaluation of each category of HCFs. Also, purely personal opinions matter as well, as was the case about herbal treatment.

The subjective evaluation of the curative capabilities of each HCFs fairly strongly determine health seeking behaviors of the people in the Study Area. In fact, the people in the Study Area hop around from one HCF to another without committing themselves to one facility once they have judged the medical service provided is not appropriate, as is shown by the comments like below:

"When I visit the dispensary, I am prescribed for and referred to the chemist to go and buy all the drugs, so I go to elsewhere." (a male farmer of Moticho)

"I visited private clinic but the condition became severe. I went to Health Center and was given drugs, but somehow I did not feel much difference so I went to Tenwek (mission) hospital." (a male shop owner of Bomet)

These attitudes adversely affects the curative capabilities of each HCF, because it reduces the capability of medical staff in detecting the real problems of the patient and providing effective and continued treatment. The problem is that the mistrust on the part of local population, and the non-commitment of clients to one single HCF that results, is mutually deteriorating the curative capability of many of the HCFs. People should therefore be encouraged to commit themselves more fully to the HCF that they first visited so that the curative capabilities of the institution can be fully exploited.

This said, however, the curative capabilities of HCFs should also be expanded in parallel in order not to disappoint clients and further deteriorate people's confidence in these facilities. Indeed, people have good reasons to be suspicious of the curative capabilities of the staff of HCFs; many attendants of FGD who criticized HCFs of their ineffectiveness did so drawing on their own experiences.

To sum up this section, people go most often to Health Centers for seeking health, though such relatively expensive HCFs as mission hospitals and private hospitals are also visited, if less often. Chemists are also often visited, though the bulk of the cases are the result of reference from other HCFs. The accessibility to HCFs was found to be relevant to some degree, in the sense people more often go to nearby HCFs such as dispensaries and chemists than to distant HCFs like Government Hospitals. But the relevance is only limited one in that people are ready to go to distant HCF if found necessary. Wealth level is found to be irrelevant as a determining constraint of one's action. The kinds of diseases, also, were found not relevant except for such everyday sort of physical problem as headache, in which case local dispensaries are most often visited. Other than this, no conspicuous difference was identified.

Malaria episodes and case management, which will be examined in detail in next section, indicate that perceived degree of severity, together with how much money one can dispose of at the specific time, are far more important determinants of the health-seeking behaviors in the Study Area. That is, these findings suggest that, although such objective factors as overall costs including transportation costs are surely operative, personal views and perceived degree of severity determine specific health seeking behaviors that are taken by people in the Study Area. The result of the survey about case management of malaria indeed lend support to such a view and provide in-depth understanding about health seeking behaviors of the people in the Study Area, which is applicable not only about malaria but also about other kinds of diseases.