

## Reinforcement of the health posts and installation of a water supply system at Bakwelle, Mbakem and Eshobi village.

### **1. Summary.**

In October and November 1998 the Manyu Rural Development Project (MRDP) in cooperation with the Manyu Health Organisation (MHO) carried out a health system research (HSR) in Mamfe Central and central Ejagham. The objective was to identify the reasons for the declining performance of existing health system in Mamfe Central and central Ejagham to find solutions. Furthermore, the health-seeking behavior of the population was looked at and a big part of the private health workers were identified.

It was recommended to reinforce three community health posts following a number of criteria. The community health posts faces a shortage of equipment and drugs, have management problems (lack of supervision) and do not have a suitable place to operate.

To improve on this situation, (re-)construction of three buildings, training of the staff, supervision of the health post and organising drugs supply are required. These are the objectives of the micro-project proposals.

The financial requirements amount to ..... CFA.

### **2. Presentation of the applicant.**

#### **Introduction.**

Bakwelle, Mbakem and Eshobi health posts were selected by the MRDP to investigate possibilities for assistance after a health system research (HSR) was carried out in Mamfe Central and central Ejagham. They were selected on the following criteria:

- 1 The community has experience in running a health post and part of the facilities are available (with former assistance from the German Association for Technical Assistance (GTZ), Manyemen hospital or the Government).
- 2 The nearest well functioning health facility is especially in the rainy season difficult to access and based on a distance of more then five kilometer.
- 3 The health post can serve not only their own village but also surrounding villages (the target areas contain 2.000 or more people) who even have less access to health facilities.

Secondly the need was identified for a water supply system in Bakwelle and Mbakem village. The health post needs to be supplied with water once it is fully operational to be able to work hygienically and efficiently.

## **2.1 Bakwelle health post.**

Bakwelle health post is operational since 1986. With the assistance of GTZ their building was 'completed' in 1988. Two villagers were trained for three weeks as community health workers (CHW's), to be able to diagnose and treat minor cases and to be able to do the administration (consultations and selling of drugs) of the health post. GTZ was supplying them with drugs, was responsible for the supervision of the health post and did the final / financial administration from 1986 till 1992.

Bakwelle health post is still functioning. It is fully run by the village, but they receive sometimes assistance from Eyumojock hospital or Afap health center. The problem they face since several months is a shortage of drugs. The TBA is still doing deliveries, but no other activities are going on at the moment. The building is in good shape although not completed yet. Basic and medical equipments are available till a certain extent. Water supply is not available in the whole village. Also the sanitation system in the health post needs to be completed.

After the first discussion with the CHW's and the chairman of the health committee the impression of the MRDP is that the village is eager to put up the health post again. They have understood and accepted that they can support the MRDP / SNV with the completion of the health post buy supplying material and labor.

## **2.2 Mbakem health post.**

The medical doctor of Eyumojock hospital initiated Mbakem health post in 1995. Up till today one small room is used as a consultation room and drugs store. The community started in January 1998 with the construction of a health post of which the foundation is completed by now. Two villagers were trained as community health workers (CHW's) in Eyumojock hospital for three weeks to be able to diagnose and treat minor cases and to be able to do the administration (consultations and selling of drugs) of the health post.

Mbakem health post is still functioning. It is fully run by the village, but they receive assistance from Eyumojock hospital. The problem they face since several months is a shortage of drugs. The treasurer of the VHC of Mbakem does the financial administration.

One CHW is consulting and doing deliveries on the moment. The building is under construction like mentioned before. Basic and medical equipments are available till a minimum extent. The VHC will be dissolved according to the chairman of the traditional council due to internal problems. New members will be appointed.

After the first discussion with the chairman of the traditional council it is clear that that the village is eager to put up the health post. He has also understood and accepted that they can support the MRDP/SNV in completion of the health post by supplying material and labor.

### **2.3 Eshobi health post.**

Eshobi health post was created in 1983 with the assistance of Manyamen hospital. The health post was established in the former community hall, while the drugs were kept in a different building for security reasons. Manyamen trained two villagers to become Community Health Workers (CHW's) for a period of six weeks to be able to diagnose and treat minor cases and to be able to do the administration (consultations and selling of drugs) of the health post. Manyamen was supplying them with drugs, was responsible for the supervision of the health post and did the final / financial administration. In 1995 the health post was handed over to the government on the request of the government (change of policy). Before the end of 1996 the health post was closed down because drugs supplies did not reach Eshobi again.

Like mentioned before the two CHW's are still present and available in Eshobi. The former health post was put down by a tornado some months ago (second half of 1998). No detailed inventory has been done yet but hardly any basic and medical equipments are available. Drugs are also not available.

After the first discussion with the Chief, the traditional council, the CHW's and the secretary of the former Village Health Committee (VHC) MRDP's impression is that the village is eager to put up the health post again. They have understood and accepted that they can support the building of the health post buy supplying material and labor. A new VHC has to be elected to supervise the health post in the future.

### **3. Problem statements.**

- 3.1 The health posts are not functioning accurately because the building is not completed yet or still needs to be constructed.
- 3.2 Due to a lack of water supply in Bakwelle and Mbakem the villagers do not have access to clean (drinking) water and activities like deliveries, dressing of wounds and cleaning can not be done in an accurate way in the health post.
- 3.3 The health posts are not sufficiently supplied with drugs.
- 3.4 Supervision of the management of the health posts is presently not taken care of.
- 3.5 The CHW's did not receive a follow up training which means that they are assumed to be limited in their capacity to carry out health related activities in the health post.

#### **4. Broad description of the project.**

##### **4.1 General.**

The target area includes the following villages:

-Bakwelle health post; Bakwelle, Mkpot, Ebinsi, Nkemichi and Ayukaba.

-Mbakem health post; Mbakem, Akwem and Taboh and other surround villages.

-Eshobi health post; Eshobi, Mokoyong, Eyang Ntui, Nyang, Akwa, Kesham and Nfatur

The health posts can serve a population of 2.000 or more people living in or around Bakwelle, Mbakem or Eshobi. Before deciding on what activities to carry out in the health posts a survey was conducted in these villages. For details on the needs required and conclusions see annex 1. The health posts will be run by at least 2 CHW's and will be supervised by and function under the responsibility of the VHC's.

##### **4.2 Construction of the health post and water supply system by RIDP.**

###### **4.2.1 Bakwelle health post.**

###### **4.2.2 Mbakem health post.**

###### **4.2.3 Eshobi health post.**

##### **4.3 Supply of equipment.**

A standard equipment list was used as a guideline to make a definite list of equipment needed to make the health posts functioning. The health post are supplied with at least a three month stock to make it possible to generate income and supply the health post afterwards with the means generated. For the stock list see annex 2.

##### **4.4 Supply of drugs.**

To install the revolving system initial contacts have been established with the South West Provincial Special Fund for Health (SWPSFH), Buea. The organisation is supplying 13 Government health centers in Manyu Division with drugs. The District Medical Officer (DMO) of Mamfe health District has send an official request in the name of MRDP to the SWPSFH to supply the health posts with drugs. Drugs will be sold by SWPSFH at the lowest possible price to the community health posts since they have to generate income from their sales. The first payment needs to be completed after drugs have been sold. No investments cost.

##### **4.5 Supervision of the management of Bakwelle, Mbakem and Eshobi health post.**

The supervision of the health posts will be carried out initially under the responsibility of the Technical Assistant (TA) health of the MRDP. The Program Animator (PA) of the MRDP and the Manyu Health Organisation (MHO) personnel will assist him. In the

future the supervision will be handed over to the local NGO MHO. The supervision team will carry out the following activities;

- Discuss the financial records with the management team of the health post.
- Discuss the patient's records with the management team of the health post.
- Discuss the management of drugs with the management team of the health post.
- Guide the CHW's in carrying out their health related activities.

#### **4.6 Training of CHW's.**

The training of the CHW's will be carried out initially under the responsibility of the Technical Assistant (TA) health of the MRDP. The Program Animator (PA) of the MRDP and the MHO personnel will assist him. The training will include the following subjects;

- Health education (prevention of AIDS, malaria, transmittable diseases etc.).
- Carry out deliveries.
- Antenatal care.
- Mother and child care (nutrition, vaccinations etc.).
- Most common diseases.
- First aid and dressing of wounds.
- Examination of patients.
- Management skills; drugs, registration, finances.
- Etc.

### **5. Justification.**

#### **5a. Social impact.**

Involvement of the population will be ensured. They will play an active role in decision making and taking procedures as well as in planning, implementing and evaluating health activities. Ultimately the improved health services will have a direct impact on the health status of the population.

The improved health status of the population will in turn be an impetus for socio-economic development of the area.

#### **5b. Gender aspect.**

In general women are the main consumers of health care. They will profit most from the set up of the health posts. The only concern is the how to reduce the time spend on consulting in the health posts especially in relation to their responsibilities to their children. For that reason the activities of the health post should be organized in such a way that children and women can consult on the same day / moment.

### **6. Sustainability.**

The health post is supposed to sustain itself by generate income from the services provided to the population. It has to be managed by the VHC's and the CHW's together. The management system needs to be reviewed and if necessary a new system will be set

up. After (re-)construction and establishing the health posts the MHO is supposed to supervise the health post on the long term. The moment the health post is fully independent they should consult the MHO in case any problem occurs.

**7. Specific project objectives, activities and assumptions.**

<b>Specific objectives</b>	<b>Activities</b>	<b>Assumptions</b>
To provide to the population of Bakwelle, Mbakem and Eshobi and surrounding villages with good quality basic health care, which is affordable, acceptable and accessible.	<ul style="list-style-type: none"> <li>-(Re-)construction of a health posts.</li> <li>-Supply the health post with drugs.</li> <li>-Revise the management system.</li> <li>-Training of CHW.</li> </ul>	<ul style="list-style-type: none"> <li>-The population will supply labor and material.</li> <li>-SWPSFH will assist in supplying the required drugs (revolving system).</li> <li>-The present management system in outdated and not adequate.</li> <li>-The 6 available CHW's need to be updated in their knowledge and skills.</li> </ul>
To provide to the population of Bakwelle and Mbakem clean drinking water.	Apply a water supply system.	The population is facing health problems due to a lack of clean drinking water.
To build up the capacity of the MRDP / MHO personnel.	Training of MRDP/MHO personnel on the following subjects; <ul style="list-style-type: none"> <li>-Training health workers.</li> <li>-Health post management.</li> </ul>	The MRDP/MHO personnel presently do not have the skills to train health workers and to manage a health post.

**8. Monitoring and evaluation.**

The RIDP shall be responsible for the overall supervision during the construction of the health post and the water supply system.

The MRDP shall be responsible for the overall supervision during the setting up of the health post. After setting up the health post the MRDP in collaboration with the MHO shall inspect the records and audit the accounts on a monthly base.

The health post shall quarterly review their activities, whilst and the end of each year a participatory evaluation shall be carried out by the MRDP /MHO.

## 9. Calendar of activities.

Description \ Year Month	1999								
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(Re-)construction of a health posts.				x	x	x	x		
Apply water supply systems.				x	x	x	x		
Training of MRDP/MHO personnel.	x			x					
Training of CHW.					x	x	x		
Revise the management system.							x		
Supply the health post with drugs.							x		
Daily supervision of health post on technical aspects.								x	x
Daily inspection of records and auditing records.								x	x

Description \ Year Month	2000											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly supervision of health post on technical aspects .	x	x	x	x	x	x	x	x	x	x	x	x
Monthly inspection of records and auditing records.	x	x	x	x	x	x	x	x	x	x	x	x

## 10. Project costing

Activity	Frs CFA	
Construction of three health posts.		
Construction of two water supply systems.		
Equipment.	1.498.000	See annex 2.
Training of MRDP/MHO personnel.	600.000	
Training of CHW.	800.000	
Revise the management system.	-	Integrated in the training of CHW
Supervision of health posts on technical / medical aspects continuously for two months.	735.000	For a period of 2 months including consulting of the MHO.
Inspection of records and auditing records continuously for two months.	-	As part of the supervision done by MHO.
Supervision of health posts on technical / medical aspects once a week from 1/1/00-31/12/00 (once a week one of the three health posts).	520.000	By consulting the MHO.
Inspection of records and auditing records three times a month (the different health posts) from 1/1/00-31/12/00.	360.000	By consulting the MHO.
<b>Total</b>		

## **Annex 1: Results questionnaire population Bakwelle, Mbakem and Eshobi area.**

### **1. Introduction.**

A research was conducted among approximately 7.5% of the target population for the reinforcement of Bakwelle health post. It was felt necessary to find out whether the wishes of the village leaders and the managers / employees were in line with the demands of the population. Secondly the population are the target group themselves. The population was selected at random.

### **2. Results.**

Four questions were asked to the population, 30 persons per village (totally 90). In question one the population was asked to give three common health problems affecting their family. Because of three possible answers you find a total number of 270 answers and a total percentage of 300. In question 2 and 3 the population could give 4 possible answers, so you find a total number of 360 answers and a total percentage of 400.

### **3. Bakwelle area.**

#### **1. The main health problems affecting the villagers.**

Health problems	Bakwelle		Ebinsi		Mkpot		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Malaria	28	93.3	29	96.7	27	90	84	93.3
2 Dysentery / diarrhea	22	73.3	18	60	20	66.7	60	66.7
3 Skin diseases/scabies	9	30	9	30	4	13.3	22	24.4
4 Filaria	0	0	9	30	12	40	21	23.3
5 RTI	9	30	8	26.7	4	13.3	21	23.3
6 Pain	5	16.7	4	13.3	4	13.3	13	14.4
7 Rheumatism	3	10	3	10	4	13.3	10	11.1
8 Stomach pains	2	6.7	3	10	1	3.3	6	6.7
9Typhoid	1	3.3	1	3.3	4	13.3	6	6.7
10 High fever	0	0	3	10	1	3.3	4	4.4
11Others	5	16.7	2	6.7	6	20	13	14.4
12No answer given	6	20	1	3.3	3	10	10	11.1
<b>Total</b>	<b>90</b>	<b>300</b>	<b>90</b>	<b>300</b>	<b>90</b>	<b>299.8</b>	<b>270</b>	<b>299.8</b>

#### **2. The wished services provided by a health post.**

Services	Bakwelle		Ebinsi		Mkpot		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Maternity	29	96.7	25	83.3	28	93.3	82	91.1
2 Sales of drugs	26	86.6	22	73.3	20	66.7	68	75.6
3 Consultations	14	46.7	14	46.7	18	60	46	51.1
4 Laboratory	14	46.7	14	46.7	14	46.7	42	46.7
5 In patients ward	7	23.3	16	53.3	10	33.3	33	36.7
6 Antenatal care	8	26.7	13	43.3	9	30	30	33.3
7 Surgery	6	20	5	16.7	4	13.3	15	16.7
8 Infants welfare clinic	7	23.3	3	10	3	10	13	14.4
9 Dressing of wounds	3	10	1	3.3	2	6.7	6	6.7
10Vaccinations	2	6.7	1	3.3	0	0	3	3.3
11Others	2	6.7	0	0	3	10	5	5.6
12No answer	2	6.7	6	20	9	30	17	18.9
<b>Total</b>	<b>120</b>	<b>400.1</b>	<b>120</b>	<b>399.9</b>	<b>120</b>	<b>400</b>	<b>360</b>	<b>400.1</b>



### 3. The wished beneficiaries within the community from the services of the health post.

Beneficiaries	Bakwelle		Ebinsi		Mkpot		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Children	29	96.7	29	96.7	27	90	85	94.4
2 Elderly people	28	93.3	23	76.7	20	66.7	71	78.9
3 Pregnant women	26	86.7	21	70	23	76.7	70	77.8
4 Men / women	13	43.3	17	56.7	23	76.7	53	58.9
5 Youths	0	0	0	0	9	30	9	10
6 Men	4	13.3	2	6.7	0	0	6	6.7
7 Women	2	6.7	1	3.3	0	0	3	3.3
8 Disabled / orphans	0	0	1	3.3	0	0	1	1.1
9 Poor	0	0	0		1	3.3	1	1.1
10 No answer	18	60	26	86.7	17	56.7	61	67.8
<b>Total</b>	<b>120</b>	<b>400</b>	<b>120</b>	<b>400.1</b>	<b>120</b>	<b>400.1</b>	<b>360</b>	<b>400</b>

### 4. Preferred location of the health post (in Bakwelle).

Location	Bakwelle		Ebinsi		Mkpot		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Present location	30	100	24	80	21	70	75	83.3
2 Scholl compound	0	0	1	3.3	0	0	1	1.1
3 At the side of Bakwell	0	0	3	10	3	10	6	6.6
4 I do not know	0	0	2	6.7	6	20	8	8.9
<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>100</b>	<b>99.9</b>

### 3. Conclusions

The five most common experienced diseases are malaria, dysentery / diarrhea, skin diseases, filaria and respiratory tract infections. The services the population likes to be provided are maternity care, sales of drugs, consultations, laboratory facilities, an inpatients ward and antenatal care (all more than 30%) etc. The wished beneficiaries are children, elderly people, pregnant women and adults (this includes the whole population). Little attention has been paid to minority groups like the disabled or the poor.

According to the set up of a *community health post* it is not realistic to expect that it can provide services like; laboratory, in patients ward or surgical activities. The community health post is supposed to diagnose and treat minor diseases and play an important role in preventative health care amongst the target population. Secondly they must be able to provide first aid in case of any emergency and do simple deliveries. In any other case they are supposed to refer patients to a health center or hospital. All the other services can be provided and are in line with the wishes of the community leaders and the health post managers / employees. These services will cover the health problems affecting the community as mentioned in question one.

More than eighty percent of the population thinks the present side is suitable to maintain the health post.

#### 4. Eshobi area.

##### 1. The main health problems affecting the villagers.

Health problems	Eshobi center		Bombay quarter		Berore quarter		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Malaria	25	83.3	23	76.7	19	63.3	67	74.4
2 Diarrhea / dys / chol	7	23.3	13	43.3	19	63.3	39	43.3
3 Filaria	6	20	15	50	13	43.3	34	37.8
4 Chicken pox	3	10	5	16.7	5	16.7	13	14.4
5 Stomache pains	5	16.7	6	20	2	6.7	13	14.4
6 RTI	7	23.3	2	6.7	3	10	12	13.3
7 Veneral diseases	3	10	4	13.3	4	13.3	11	12.2
8 Thyphoid	1	3.3	3	10	3	10	7	7.8
9 Eye problems	0	0	0	0	6	20	6	6.7
10Skin diseases/scabies	0	0	3	10	2	6.7	5	5.6
11Measles	2	6.7	0	0	3	10	5	5.6
12Yellow fever	2	6.7	2	6.7	1	3.3	5	5.6
13TBC	2	6.7	2	6.7	0	0	4	4.4
14Rheumatism	4	13.3	0	0	0	0	4	4.4
15Others	10	33.3	0	0	6	20	16	17.8
16No answer	13	43.3	12	40	4	13.3	29	32.2
<b>Total</b>	<b>90</b>	<b>299.9</b>	<b>90</b>	<b>300</b>	<b>90</b>	<b>299.9</b>	<b>270</b>	<b>299.9</b>

##### 2. The wished services provided by a health post.

Services	Eshobi center		Bombay quarter		Berore quarter		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Maternity	19	63.3	21	70	27	90	67	74.4
2 Consultations	19	63.3	19	63.3	20	66.7	58	64.4
3 Sales of drugs	8	26.7	23	76.7	21	70	52	57.8
4 Vaccinations	5	16.7	13	43.3	19	63.3	37	41.1
5 Laboratory	13	43.3	7	23.3	9	30	29	32.2
6 Antenatal care	12	40	8	26.7	6	20	26	28.9
7 Infants welfare clinic	14	46.7	5	16.7	2	6.7	21	23.3
8 In patients ward	3	10	6	20	10	33.3	19	21.1
9 Dressings / first aid	6	20	2	6.7	0	0	8	8.9
10Surgery	3	10	1	3.3	1	3.3	5	5.6
11 Others	4	13.3	0	0	1	3.3	5	5.6
12No answer	14	46.7	15	50	4	13.3	33	36.7
<b>Total</b>	<b>120</b>	<b>400</b>	<b>120</b>	<b>400</b>	<b>120</b>	<b>399.9</b>	<b>360</b>	<b>400</b>

##### 3. The wished beneficiaries within the community from the services of the health post.

Beneficiaries	Eshobi center		Bombay quarter		Berore quarter		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Children	28	93.3	29	96.7	29	96.7	86	95.6
3 Pregnant women	27	90	11	36.7	15	50	53	58.9
3 Men / women	16	53.3	23	76.7	14	46.7	53	58.9
4 Elderly people	11	36.7	8	26.7	10	33.3	29	32.2
5 Farmers	3	10	4	13.3	4	13.3	11	12.2
6 Youths	2	6.7	1	3.3	3	10	6	6.7
7 Disabled / orphans	1	3.3	0	0	4	13.3	5	5.6
8 Men	0	0	0	0	2	6.7	2	2.2
9 No answer	32	106.7	44	146.7	39	130	115	127.8
<b>Total</b>	<b>120</b>	<b>400</b>	<b>120</b>	<b>400.1</b>	<b>120</b>	<b>400</b>	<b>360</b>	<b>400.1</b>

#### 4. Preferred location of the health post (in Eshobi).

Location	Eshobi center		Bombay quarter		Berore quarter		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Any convenient place Eshobi center	16	53.3	12	40	10	33.3	38	42.2
2 Near the school	9	30	7	23.3	9	30	25	27.8
3 Near the market place	2	6.7	7	23.3	5	16.7	14	15.6
4 Berore quarter					6	20	6	6.7
5 Present location	3	10					3	3.3
6 Bombay quarter			2	6.7			2	2.2
7 Chiefs compound			1	3.3			1	1.1
8 No answer			1	3.3			1	1.1
<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>99.9</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>

### 3. Conclusions

The seven most common experienced diseases are malaria, dysentery / diarrhea, filaria, chicken pox, stomach problems, respiratory tract infections and venereal diseases. The services the population likes to be provided are maternity care, consultations, sales of drugs, vaccinations and laboratory facilities (all more than 30%) etc. The wished beneficiaries are children, elderly people, pregnant women and adults (this includes the whole population). Little attention has been paid to minority groups like the disabled or the poor.

According to the set up of a *community health post* it is not realistic to expect that it can provide services like; laboratory, in patients ward or surgical activities. The community health post is supposed to diagnose and treat minor diseases and play an important role in preventative health care amongst the target population. Secondly they must be able to provide first aid in case of any emergency and do simple deliveries. In any other case they are supposed to refer patients to a health center or hospital. All the other services can be provided and are in line with the wishes of the community leaders and the health post managers / employees. These services will cover the health problems affecting the community as mentioned in question one.

More than 40% of the Eshobi people has no fixed idea on where to built the new health post in Eshobi, while only 3.3% supports the present location. Nevertheless two locations are supported or suggested by more than 15% of the population, near the market place (15.6%) and near the school compound (27.8%). It needs further discussion with the villagers and their leaders.

## 5. Mbakem area

### 1. The main health problems affecting the villagers.

Health problems	Mbakem		Akwem		Taboh		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Malaria	29	96.7	27	90	27	90	83	92.2
3 Filaria	12	40	17	56.7	15	50	44	48.9
2 Disentry / diarrhea	13	43.3	17	56.7	11	36.7	41	45.6
4 Skin diseases/scabies	6	20	4	13.3	4	13.3	14	15.6
5 RTI	6	20	4	13.3	2	6.7	12	13.3
6 Stomache problems	0	0	5	16.7	5	16.7	10	11.1
7 Chicken pox	3	10	0	0	3	10	6	6.7
8 Rheumatism	3	10	1	3.3	1	3.3	5	5.6
9Thyphoid	2	6.7	1	3.3	2	6.7	5	5.6
10Yellow fever	0	0	0	0	4	13.3	4	4.4
11Measles	0	0	0	0	3	10	3	3.3
12Others	5	16.7	8	26.7	4	13.3	17	18.9
13Missed answer	11	36.7	6	20	9	30	26	28.9
<b>Total</b>	<b>90</b>	<b>300.1</b>	<b>90</b>	<b>300</b>	<b>90</b>	<b>300</b>	<b>270</b>	<b>300.1</b>

### 2. The wished services provided by a health post.

Services	Mbakem		Akwem		Taboh		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Maternity	25	83.3	27	90	29	96.7	81	90
2 Sales of drugs	25	83.3	24	80	22	73.3	71	78.9
3 Consultations	11	36.7	13	43.3	15	50	39	43.3
4 Laboratory	13	43.3	19	63.3	15	50	47	52.2
5 In patients ward	12	40	9	30	4	13.3	25	27.8
6 Antenatal care	10	33.3	4	13.3	5	16.7	19	21.1
7 Operations	6	20	4	13.3	0	0	10	11.1
8 Infants welfare clinic	5	16.7	6	20	12	40	23	25.6
9 Dressing of wounds	6	20	1	3.3	3	10	10	11.1
10Vaccinations	4	13.3	3	10	8	26.7	15	16.7
11 Others	0	0	2	6.7	1	3.3	3	3.3
12Missed answer	3	10	8	26.7	6	20	17	18.8
<b>Total</b>	<b>120</b>	<b>399.9</b>	<b>120</b>	<b>399.9</b>	<b>120</b>	<b>400</b>	<b>360</b>	<b>399.9</b>

### 3. The wished beneficiaries within the community from the services of the health post.

Beneficiaries	Mbakem		Akwem		Taboh		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Children	30	100	28	93.3	28	93.3	86	95.6
3 Pregnant women	24	80	25	83.3	22	73.3	71	78.9
2 Elderly people	24	80	22	73.3	17	56.7	63	70
4 Men / women	13	43.3	15	50	20	66.7	48	53.3
10Farmers	1	3.3	8	26.7	8	26.7	17	18.8
8 Disabled / orphans	8	26.7	1	3.3	2	6.7	11	12.2
5 Youths	4	13.3	5	16.7	0	0	9	10
9 Poor	0	0	2	6.7	1	3.3	3	3.3
10Missed answer	16	53.3	14	46.7	22	73.3	52	57.8
<b>Total</b>	<b>120</b>	<b>399.9</b>	<b>120</b>	<b>400.0</b>	<b>120</b>	<b>400</b>	<b>360</b>	<b>399.9</b>

#### 4. Preferred location of the health post (in Bakwelle).

Location	Mbakem		Akwem		Taboh		Total	
	Nr.	%	Nr.	%	Nr.	%	Nr.	%
1 Center of village			10	33.3	14	46.7	<b>24</b>	<b>26.7</b>
2 Present location	13	43.3	4	13.3			<b>17</b>	<b>18.8</b>
3 Other then the present	10	33.3					<b>10</b>	<b>11.1</b>
4 Beginning village	1	3.3	6	20	3	10	<b>10</b>	<b>11.1</b>
5 Any convenient place			3	10	5	16.7	<b>8</b>	<b>8.9</b>
6 End of the village	6	20			1	3.3	<b>7</b>	<b>7.8</b>
7 I do not know			7	23.3	7	23.3	<b>14</b>	<b>15.6</b>
<b>Total</b>	<b>30</b>	<b>99.9</b>	<b>30</b>	<b>99.9</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>

### 3. Conclusions

The six most common experienced diseases are malaria, dysentery / diarrhea, filaria, stomach problems, respiratory tract infections and skin diseases. The services the population likes to be provided are maternity care, consultations, sales of drugs, in patients ward, antenatal care and laboratory facilities (all more then 20%) etc. The wished beneficiaries are children, elderly people, pregnant women and adults (this includes the whole population). Little attention has been paid to minority groups like the disabled or the poor.

According to the set up of a *community health post* it is not realistic to expect that it can provide services like; laboratory, in patients ward or surgical activities. The community health post is supposed to diagnose and treat minor diseases and play an important role in preventative health care amongst the target population. Secondly they must be able to provide first aid in case of any emergency and do simple deliveries. In any other case they are supposed to refer patients to a health center or hospital. All the other services can be provided and are in line with the wishes of the community leaders and the health post managers / employees. These services will cover the health problems affecting the community as mentioned in question one.

More then 40% of the interviewees said the health post should be in the center of the village or the present place (which is in the center). Remarkably 1/3 of the Mbakem population wants another place then the present location, while nearly 15% of the Akwem and Taboh people would like to see the health post at their side of Mbakem village.





Equipment	Number				Cost per item	Total cost
	Bak	Esh	Mba	Tot		
<b>3. Medical equipment</b>						
3.1 Sphygmo / blood pressure	1	1	1	3	35.000	105.000
3.2 Otoscope / speculums / spare bulbs	1	1	1	3	75.000	225.000
3.3 Stethoscope	2	2	2	6	9.500	57.000
3.4 Fetoscope	2	2	2	6	11.500	69.000
3.5 Tongue depressors	100	100	100	300	3.500 (100)	10.500
3.6 Weighing scale adults	1	1	1	3	35.000	105.000
3.7 Weighing scale children	1	1	1	3	140.000	420.000
3.8 Height measurer	1	1	1	3	50.000	150.000
3.9 Portable weight / height chart	1	1	1	3	25.000	75.000
3.10Tape measure	1	1	1	3	3.500	10.500
3.11Tourniquet (garrot)	1	1	1	3	1.500	4.500
3.12Ear syringe	1	1	1	3	2.500	7.500
3.13Vaginal speculums	1	1	1	3	14.450	43.350
3.14Family planning supplies	1	1	1	3	10.500	31.500
3.15Abscess suture set	1	1	1	3	118.000	354.000
3.16Scissors straight / blunt	3/3	3/3	3/3	9/9	7.500	135.000
3.17IV cannulas and giving set	300	300	300	900	650	585.000
3.18Child feeding tubes	100	100	100	300	1.500	450.000
3.19Dressing trays ss c. 30x15x3	5	5	5	15	35.000	525.000
3.20Kidney dishes ss c. 26x14	10	10	10	30	20.000	600.000
3.21Syringes luer 2,5,10 ml (rest)	5	5	5	15	NA	-
3.22Syringes luer 2 ml (dis)	300	300	300	900	4.800 (100)	43.200
3.23Syringes luer 5 ml (dis)	300	300	300	900	4.500(100)	40.500
3.24Syringes luer 10 ml (dis)	300	300	300	900	5.500(100)	49.500
3.23Needles luer IM 21 G	300	300	300	900	3.000 (100)	27.000
3.24Needles luer SC 25 G	300	300	300	900	3.000 (100)	27.000
3.25Needles luer IV 19 G	300	300	300	900	3.000 (100)	27.000
3.26BCG syringe	300	300	300	900	7.000 (100)	49.000
<b>Component total</b>						<b>4.226.050</b>



Equipment	Number				Cost per item	Total cost
	Bak	Esh	Mba	Tot		
<b>4. Renewable medical supplies</b>						
4.1 Rubber gloves	500	500	500	1500	17.500 (50)	525.000
4.2 Urinary catheters foley (disp)	100	100	100	300	15.000 (10)	450.000
4.3 Blades (packet)	100	100	100	300	9.000 (100)	27.000
4.4 Cord ligatures	100	100	100	300	30.000 (100)	90.000
4.5 Other midwifery supplies.	1	1	1	3	250.000	750.000
4.6 Suturing material Vicryl / Catgut	2x100	2x100	2x100	2x300	2.000/1.500	1.050.000
4.7 Absorbent cotton wool (pack)	2	2	2	6	5.000 (kg)	30.000
4.8 Adhesive tape 2.5 cm 5 m roll (boxes)	50	50	50	150	900	135.000
4.9 Elastic bandage 7.5 x 10	50	50	50	150	1.000	150.000
4.10 Gauze bandage 7.5cm a10m r	10x10	10x10	10x10	30x10	3.000 (10)	90.000
4.11 Gauze compresses 10x10cm ply non-sterile (packet)	100	100	100	300	2.000	600.000
4.12 Bar of soap	20	20	20	60	300	18.000
4.13 Nailbrush (autoclavable)	1	1	1	3	4.000	12.000
<b>Component total</b>						<b>3.927.000</b>

Components	Component total
1.General equipment.	5,249,400
2.Office equipment.	476,550
3.Medical equipment.	4,226,050
4.Renewable supplies.	3,927,000
<b>Overall total</b>	<b>1,498,000</b>

**Annex 3: Essential drugs list to be supplied to each of the three health posts.**

Code number	Medicine			
<b>1</b>	<b>Anaesthetics</b>			
1.1	Lidocaine injection 1% or 2%			
<b>2</b>	<b>Analgesics and anti-inflammatoires</b>			
2.1	Acetylsalicylic acid tablet 300mg			
2.2	Paracetamol tablet 500 mg			
2.3	Paediatric Paracetamol syrup 125mg/5ml			
<b>3</b>	<b>Anti-allergics</b>			
3.1	Adrenaline injection 1mg/ml (Epinephrine)			
3.2	Chlorphenamine tablet 4mg (chlorpheniramine)			
<b>4</b>	<b>Anti-amoebics, anti-giardials</b>			
4.1	Metronidazole tablet 200mg (or 400mg or Tinidazole 500mg tablet)			
<b>5</b>	<b>Anti-anaemia drugs</b>			
5.1	Ferrous sulphate equivalent to 60mg iron			
5.2	Folic acid tablet 1mg			
<b>6</b>	<b>Anti-bacterials</b>			
6.1	Amoxicillin tablet or capsule 250mg			
6.2	Ampicillin tablet or capsule 250mg			
6.3	Chloramphenicol capsule 250mg			
6.4	Phenoxyethylpenicillin tablet 250mg			
6.5	Crystalline penicilline			
6.6	Sulphamethoxazol 400mg + trimethoprim 80 mg (Co-trim.)			
<b>7</b>	<b>Anti-epileptics</b>			
7.1	Diazepam injection 5mg in 2ml			
<b>8</b>	<b>Antifungals</b>			
8.1	Griseofulvin tablet 125 or 250 mg			
<b>9</b>	<b>Anthelmintics (for worms)</b>			
9.1	Diethylcarbamazine tablet (DEC) 50mg (for filaria)			
9.2	Ivermectin tablet 6mg (for onchocerciasis)			
9.3	Mebendazole tablet 100mg			
9.4	Niclosamide tablet 500mg			
<b>10</b>	<b>Antimalerials</b>			
10.1	Chloroquine tablet 150mg base			
10.2	Chloroquine syrup 150mg base			
10.3	Quinine tablet 300mg			
10.4	Sulphadoxine 500mg + Pyrimethamine 25mg tablet (Fansidar)			

<b>11</b>	<b>Antiseptics</b>			
11.1	Chlorhexidine 5% solution			
11.2	Iodine solution			
<b>12</b>	<b>Dermatological drugs</b>			
12.1	Benzyl benzoate lotion 25%, bottle 1 liter			
12.2	Calamine lotion			
12.3	Gentian violet aqueous solution 1%			
12.4	Hydrocortisone cream 1%			
12.5	Lindane cream 1%			
12.6	Miconazole ointment 2% (or Whitfield's ointment)			
12.7	Neomycine ointment			
12.8	Bacitracin ointment			
<b>13</b>	<b>Gastro-intestinal drugs</b>			
13.1	Aluminium hydroxide tablet 500mg			
13.2	Metoclopramide tablet 10mg			
13.3	Oral hydration salts, powder 27.9 g/l			
13.4	Senna tablet 7.5mg			
13.5	Veigelax			
13.6	Buscopan (hyoscine)			
<b>14</b>	<b>Gynaecological / Obstetrics / Contraceptive preparations</b>			
14.1	Condoms preferably with spermicide nonoxinol			
14.2	Ergometrine tablet 0.2mg			
<b>15</b>	<b>Ophthalmic drugs</b>			
15.1	Tetracaine eye drops 0.5%			
15.2	Tetracycline eye ointment 1%			
<b>16</b>	<b>Vitamin preparations</b>			
16.1	Multivite tablets			
<b>17</b>	<b>Water for injection</b>			