

203.2 9000

SUPPORT RURAL WATER SUPPLY
DEPARTMENT PROJECT



*Collection of reports on
Health Education Programme
Activities*

by Erica Zwaal a.o.

Dhamar
1990

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Sequence of activities

The overall project cycle is thought to consist of following major steps:

1. listing of potential water supply systems;
2. surveys, community information, preliminary costing, feasibility and priority setting;
3. testing, detailed design and cost estimate, negotiation of commitments, contracts;
4. construction, operator training, training of primary health care workers;
5. hand over, operation and maintenance, monitoring, evaluation, health and hygiene education.

In time, steps 1 and 2 are completed first, after which an implementation schedule is prepared for projects found feasible. Then, steps 3 to 5 take place system by system, in accordance with set priorities and available annual budgets. Projects may be cancelled during step 2, when systems prove not to be feasible and during step 3, when either source or contract cannot be secured. Where a project is cancelled, priority ranking and implementation schedules must be revised.

Step 1. listing of potential water supply systems

The RWSD has to supply a list of villages which have a water source available. An additional list could be made of villages with a primary health care unit.

Step 2. surveys, community information, preliminary costing, feasibility and priority setting;

In step 2 no party commits itself to project implementation; it is only after proven feasibility that a project is eligible for implementation and even then commitment is pending the outcome of step 3. It is of utmost importance to keep down the level of expectation with the potential beneficiaries at this stage of project preparation.

The surveys implemented in step 2 are:

1. Technical survey
 - investigating the feasibility of source and source development,
 - routing of transmission and distribution mains,
 - location of reservoir, etc..

Resulting in a preliminary design and cost estimate.

The preliminary design also shows which part of the potential supply area is to be covered by the system, based on cost considerations. Potential problems in securing the available source must be signalled here.

Potential or existing environmental sanitation problems are also signalled at this stage and considered for taking up in project implementation.

2. Socio economic survey,
 - investigating population size and distribution over the potential supply area
 - socio economic and administrative structure
 - willingness of the beneficiaries to participate in and contribute to the preparation, implementation and maintenance of the system

Based on survey results the feasibility of the project is determined, based on the following criteria:

1. present population to be served by the system must be above 300;
2. per capita cost of the system should not exceed YR 1000;
3. feasibility of source and source development;
4. development and operating capability and ability and willingness to participate and contribute;

Upon completion of feasibility studies, feasible projects can be listed and preliminary cost estimates totalled to be compared with available budgets. A master plan of project implementation can now be prepared, taking into account available annual budgets.

The master plan will be discussed with the RWSD Dhamar director.

Step 3. testing, detailed design and cost estimate, negotiation of commitments, contracts;

Step 2 will result in an agreed master plan for project implementation. Step 3 will confirm feasibility, finalize designs, draw up contract with all involved parties, after successful completion of which construction will start immediately.

The source will be tested on quantity and quality. If the result is negative, the project will be abandoned. After the source has been found sufficient the detailed design, in collaboration with the beneficiaries can be started. If there is no representative the village will nominate one. He will be actively involved in project design and implementation. Upon completion of the design, a contract will be drafted to be signed by a number of villagers, the LCCD, RWSD, SRWSD, the Governor and also by the Health Office Dhamar in case of a primary health care unit catchment. The contract will relate the commitment of all parties towards the project and will subsequently specify:

1. the time schedule for implementation;
2. the contribution of the beneficiary community and of (S)RWSD towards the construction of the project;
3. the health and hygiene education programme, by the primary health care worker and other health staff, to be monitored by HOD and SRWSD.



Failing agreement on the above contract, SRWSD may cancel the project, leading to rescheduling of priority ranking and revision of project implementation schedules.

Upon successful completion of above activities tender procedures for pump units and works done by contractors may be started.

Step 4. construction, operator training, training of primary health care workers;

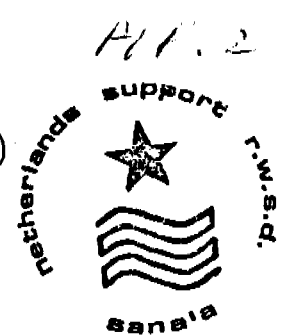
During step 4, construction will take place along the lines of the contracts negotiated in step 3. Construction activities are done by the community and in exceptional cases by contractor (elevated tanks or pump houses) under supervision of the SRWSD project office in Dhamar. During construction, the future operator receives training by the SRWSD staff. Also in this phase of the project, the HWR section starts with health education (should be done by DRHP).

Step 5. hand over, operation and maintenance, monitoring, evaluation, health and hygiene education.

Upon completion of the system, and after testing, the system will be formally handed over to the village for operation. An official receiving form is signed by the village representative, the LCCD, the governor and RWSD. The health education will continue and the mechanical section will visit the village after six month together with the HWR section.

T. V. Gans
/

From "Progress Report SRWSA"
unit 30.09-1987



3.3 Health, Women and small scale Research section (HWR)

3.3.1 Objectives

- * To organize health-education on water and sanitation with the aim that:
 - the water will be used in a health promoting way
 - waste water will not cause problems
 - the water will not be polluted before use.
- * To involve the women in the watersupply and sanitation projects.
- * To do some small scale research on project/village level to come to projects that are good functioning, sustainable, adapted to the specific village situation and with a optimal impact on the health of the inhabitants.

Health-education in general, including that on water and sanitation, is the responsibility of the HOD, supported by the DRHP. It should be implemented by the male and female primary health-care workers, supported by their trainer-supervisors and the public health section.

A watersupply project gives a big stimulus to the health-education, enlarges its impact and means a strong support to the primary healthcare worker, if he/she is involved from the start onwards of such a project.

The HWR-section supports the primary healthcare workers and coordinates between HOD/DRHP and (S)RWSA during the implementation of the watersupply project.

3.3.2 Working methods

- * During the preparation for a new watersupply project (feasibility study, technical survey, design and contract/agreement), the HWR-section is visiting the village to discuss matters with the villagers, the technical team of SRWSA and the healthworkers of the health-unit.
- * During the construction of the watersupply project, there are held weekly sessions with the women of the village about:
 - the aims, methods and progress of the watersupply projects and the problems and the wishes related to water and sanitation
 - the prevention of the most common illnesses related to water and sanitation
 - the health hazards related to water and sanitation.

The sessions are being held in one of the participants house, so that the hygienic circumstances in that house can be discussed. During walks in the village, ideas about problems and their impact are gathered and discussed. Also it is being tried to apply and implement things which have been discussed in the sessions. At least ten weekly visits/sessions are needed for the health-education programme, some before the water is available for the households, some afterwards.

Female primary healthcare workers and traditional birth attendants are involved as much as possible.



The programme is even more effective, if the same items are also discussed with the men. If the village has a male primary health-care worker, he will do this with support of the HWR-section. Together with the HWR-section some visits to the school will be done.

* After the before described programme is completed, monitoring visits are being made, every time at longer intervals.

Ref. E2W 1980411



The work of the health, women, and small scale Research section (HWR) and the planning for the future.

*Objectives and working methods: See progress report 1989-III. 3.3.1.+3.3.2. (p.8+9).

In the future the work will be done according the same lines.

*Health education:

Women:

-The field visits for health education will be restricted to 3 days a week.

-The programme will be consist of 10 sessions (8 sessions once a week in the same house with the same group of women before the water is available and 2 sessions 4 weeks apart after the water will be available). This programme will be elaborated on paper so that it is available for everybody and a copy can be left for the village.

-A very compact curriculum of 4 sessions will be worked out for villages that belong to the same water supply project, but which can't be visited 10 times, because of lack of time.

-It will be tried to get 2 young women for 3 afternoons a week, who can help with the health education. For a big village it will be possible then to form 2 teams.

Note: If the project will have villages at a distance of more than 3 hours drive, it will be impossible to do these health education sessions in one day, because it is very difficult to gather the women in the morning. To pass the night will be problematic for the Yemeni ladies. It has to be seen if a lady team can be trained in the district.

-If a trained female primary health care worker is present, she can do the health education sessions with support of the team and according the agreement with HOD/DRHP the support of the trainer supervisor.

Men:

-Within the DRHP region Naji will come regularly with the team to discuss with the men the water and sanitation and health items together with the primary health care workers and the trainer supervisor.

-Outside this region the subjects for the women will be explained to a few responsible men (e.g. the future pump operator, school teachers, the primary health care worker) in one meeting, preferably not a gat chew, so that they can support the women when they implement what they learned during their health education sessions. The health educator specialist of HOD will be asked to assist the HWR team with this.

-School:

-The health education specialist will be asked to help with his programme.

-Some demonstrations of the women sessions will be done at the school. The teacher will get some pictures.

Note: DRHP will provide the extra costs for the work inside its region, the health education specialist of HOD will get a field allowance from SRWSD.

Remarks:

The women sessions are the only meetings on a certain subject the women have, besides their own traditional ones around births, weddings and mourning. The HWR section will keep contact with other projects with a women department to see, if a follow up from their side is possible. E.g. Women association for literacy course or nutrition/cookery class and CHRDP for home gardening.

Monitoring: The technical section will work out a monitoring schedule for all the projects. The HWR section will join those visits to talk again with the women about the effects of the water scheme and to strengthen the effect of the health sessions.

Erica will continue to give classes to the courses for primary health care workers and to assist on request with meetings of the trainer supervisors.

E. Zwart

Health messages

voor gebruik van p.h.c.w.

(handleiding voor assistent)
gids / directies

Dhamar, 7-5-1990, Erica Zwart, SRWSD.

Ten sessions for health education on water and sanitation with the women of a village were a water supply project will be made.

During the first visit the hwr section will be introduced to the men of the village by the engineer, responsible for the project. The ideas about the sessions will be explained to the villagers and their approval will be sought.

An appointment will be made about the where and when of the first session.

During a walk through the village, contact will be made with some ladies and some information will be gathered, which will be discussed in the first session. (where is the water collected, is there a clinic or other medical services, which illnesses are frequent, is there a school and how many boys and girls are visiting the school, garbage, waste water, home gardens, cows, dung cakes, shops and are they selling fruits, vegetables, milk powder, distance from the market, television(s) in the village and other things that seem important)

-1-introduction of the visitors, some explanation about the water supply project, explanation of the ideas for the health sessions, asking the women what their main problems are and which things they like to be discussed in the sessions,* gathering and/or verification of above mentioned information.

-2-demonstration of dirty and clean water, which illnesses can be the result of drinking dirty water, microbes, waste water, hand washing demonstration, bread will be put in a plastic bag to use the next session at the repetition the talk about microbes.

-3-what is going on in the water supply project, the women will repeat the hand washing demonstration, showing of the mildewed bread and talk about the microbes, small introduction of worms, showing of the worm pictures.

-4-water supply project, let the women demonstrate the worm pictures, what to do to disrupt the infection circle, other roads from stool to mouth, what to do to prevent worm infections, what are the problems of worms, what to do to get rid of them, food intake after recovery, some talk about toilets, the cleaning of toilets, washing hands after using them, repeat the measurements you can take to prevent worm infection, announce the next week walk through the village.

-5-walk through the village with special attention to stool laying around, waste water and the water tanks, talk about what was seen, introduction of diarrhoea and ORS from the shop.

*adaptation of the sequence and the subjects can be made according the suggestions of the women.

-6-diarrhoea, ORS with sugar and salt, what can cause diarrhoea (mention also malnutrition), again road from stool to mouth, feeding bottles, food intake during diarrhoea and afterwards recovery.

-7-ORS, medicines with diarrhoea, feeding bottles and food intake (compare cows and sheep with people), water tank and house connection, waste water and garbage, announce next week's village walk.

-8-village walk, water supply project, home gardens, skin, eye infections, do the women think the sessions were pleasant and useful, announce 2 more visits after the availability of the water each 4 weeks apart.

In case bilharzia is a problem, or malaria, this subject can be discussed instead of the skin or an extra session can be added.

-9-After the availability of the water. walk through the village, discuss what you saw, how to solve waste water problems, leaking taps, weak and a strong child.

-10-4 weeks after the last visit. walk through the village, discuss what you saw, general talk about every thing that happened in the village, price of the water, how much water is used, on what the water is spent, what do the women do with the extra time, nutrition (if there is time left).

* Adaptation of this list of sessions can be made according the things the women will bring up.

Water and health.

Take your time for the introduction of the people from outside the village. (This first session your trainer supervisor will be present, the coordinator of the primary health care section of DRHP, and the coordinator of the women, health and small scale research section of SRWSD and the technician of SRWSD.) Tell who they are, where they come from, what they are doing, why they are in this session.

What do you know of the water project? How will the future situation be, if things go like planned? How do we try to reach this goal? etc.

How is the water situation now? (far away, not enough water etc.) Is the water healthy? (it doesn't matter which answer you will get, but the people have to think about health and drinking water.) Ask how they know this.

Some people will say that the children become ill, because they drink the water they see, without thinking about the fact that the water is clean or not. Others will say that you can see that the water is not clear, or not clean. Others will say that there water is from Allah (rain water) and therefore healthy etc.

Show a bottle with clear, boiled water. Tell that you boiled it and ask if it is safe to drink this water.

Put a little bit of fresh cow dung in it.

Can I drink this? What will happen if my baby drinks it?

People: He will become ill.

Which illness?

People: vomiting, worms, diarrhoea, other illnesses.

Phcw: Yes you may get those illnesses from drinking dirty water.

Worms don't come from cow dung, but from human faeces, but we will talk about this later.

Why cow dung can give you diarrhoea and vomiting? What is in it? (maybe some people have heard of "microbaat" or "djarizim" from the television or the schoolchildren. Don't wait long for an answer, but continue your explanation.)

In cow dung and in other dirt are very small things, like animals and they can make you ill. They are so small, you can't see them. If you have seen a telescope, you know, that it makes a thing from far away, close; it makes them bigger. The doctor uses a thing like that, a microscope; he puts a small thing under it and it seems very big. A flea seems as big as a mouse. Things seems 100 time as big as they are. Joking: a film seems a rial. (If you have a magnifying-glass, or a magnifying spectacle glass, you can show it. If people saw a microscope in the hospital, you can show a picture of it.) With this microscope the doctor can see the tiny animals (sometimes they are so small that a very special microscope is needed).

There are a lot of different kinds of microbes, as there also a

lot of different animals; there are, which give diarrhoea, there are others, which give cough, others, which make that a wound get infected, others, which make that food gets spoiled etc.

In dung, there are very, very many, that give diarrhoea, when you get them in your mouth and very many, that give skin infection, when you get them in an open wound.

You have to know two important things more about microbes.

-They are living things. If they are dead, they can't give illnesses. They are alive, so they need food and water to stay alive and to grow. Food for microbaat is everything we eat ourselves, but also the things we throw away, like the peel of a banana, and everything dirty, like dung, a dead animal etc. (let people mention other things.)

-They multiply very rapidly. If the circumstances are good for them, like having some moist and dirt, 10 of them will become 1000 within a few hours. It is not like mice, who are getting 5 times a year 8 young ones, even not like flies, but they are multiplying continuously and very fast.

The microbaat, which give diarrhoea feel very comfortable in faeces and dung. Therefore they are abundantly present in them and in your intestines.

I would like you to look in your own house and in your yard, where you would live, if you would be a microbe. (Don't expect too much of this first introduction. The idea is new, something you have to believe, because you can't see it. Of course you will come back on this in other sessions, from a different point of view.)

Back to the water. What happens, if I filter this water through a piece of cloth? (Demonstrate it!) Will the water be healthy now? Probably the water still has some colour, so the people will answer "no", but also "yes" is a possible answer.

Explain that the ill making things are so tiny, that they pass the cloth. You can't see them, but those living things are still in the water.

How can we kill them? (With a knife or revolver?) We are thirsty and we want to drink, but we don't like to get diarrhoea.

By boiling. Like a chicken egg can't provide a small chicken anymore after boiling and the seed of maize can't provide a new maize plant if you put it in the soil after boiling, the microbaat can't multiply and make you ill after boiling.

Lets come back to our water source in the village.

Is it possible that dung comes in? Maybe not directly, although there are sources where a donkey will stand in the water and he doesn't know that this not a proper hamam.

You know the water source and what is happening around them, so you can help the people to come with examples. Some dung can stick on shoes and will come in the water if the children walk in the water, a dog can have some on its nose and this will come in the water when he drinks, a bucket that stood on the ground, the rain water can take some with it with the flow, the wind can blow dust with just a tiny bit of dung in the source, washing the clothes of a child with diarrhoea and throw the water away near

the source, etc.

Maybe the story of the tiny, invisible animals, living in the water where dirt can come in, and that gives illness, is difficult to believe. You are all drinking the same water and only the baby and one other child, who is always ill, get diarrhoea, while the rest of the family is healthy as can be. Everybody has a protection against microbes, a kind of army that tries to kill every intruding, sick making thing. If a person is strong and healthy, his army also will be strong and will succeed in killing the microbes. If a person is weak (like a baby, or someone who is recovering from an other illness) his army will also be weak, and not capable of killing all microbes. The weak people will get diarrhoea if they drink this dirty water. But also a strong person can get diarrhoea if too many microbes enter his body.

Summary

- Be careful with your drinking water.
- Dung and dirt even in small quantities can make you ill.
- The more dirt and dung and stool there are in your surroundings, the easier you can become ill.
- Babies, weak persons and ill nourished children have only a small defense against illness. We have to protect them as good as we can.

Water and health (continued)

Last week we spoke about microbes:

- They can make you ill when they are alive,
 - They need water and food (dirt, dung, garbage) to stay alive,
 - They multiply very fast, if they have good circumstances.
- (You can ask the people this, but you can get too broad answers and that will be confusing for the people who didn't understand the item well.)

I asked you to look in your house and yard for places where the microbes will feel happy. What did you find?

Lets start with the hamam. There is water on the floor, sometimes even dirty water. Sometimes there is dirt from the shoes, sometimes even some stool from a child. So the microbes feel happy. It is necessary to clean the hamam often and to wash your hands after using the hamam.

Did you find places in your kitchen? Hopefully not. The food is coming from the kitchen; if there are a lot of microbes in the kitchen, they will reach the food and the food is coming in the mouth. Therefore it is urgent to keep the kitchen clean and dry. What do you think of the ashes of the tanoor? Do they have microbaat? No, because the fire killed all of them. Ashes make your hands seem dirty, but this dirt can't make you ill.

In the stables is dung and urine (water)and dirt. There are a lot of microbes, living happily with their big families. Clean them often and let small children not enter them. Be careful where you let your shoes after coming out of the stables, wash your hands with soap after working in the stables. Be careful with the milk and the containers of the milk. Clean them thoroughly before using them.

In the yard round the water tank is maybe some mud. The chicken will drink there and the flies like to be there, producing their excrements there. Is there a lot of cow dung in the yard? Do you throw your garbage there? Do the small children defecate in a corner?

The outlet of the hamam can also cause a big health risk. What we can do to prevent this, we will discuss later. Sometimes the yard is a dangerous spot and especially there the small children are playing!

We saw that we can kill microbes by boiling. But what can we do with the mattress on which the baby left some stool? How can we kill the microbes on that spot? What do you do normally? Put the mattress in the sun. This is a very good practice, because the heat of the sun will dry the mattress and the light of the sun will kill the microbes. This is a very nice thing; if we put something in the light of the sun during the time that the sun give most light, the microbes get killed. Remember, it is the

light of the sun, which does the job; a water tank, that stands in the sun will not let pass the light and therefore the sunlight cannot kill the microbes in the water in the tank. Water in a shamlan bottle will become safe, because the plastic will let the light of the sun reach the water.

What happens if we wash our hands. HAND WASHING DEMONSTRATION

With our hands we touch every thing and there will always be microbes on our hands. Most microbes are a little bit sticky and if we just rinse them with water, some microbes will come off from your hands into the water, but the majority of the microbes will stick on your hands, feeling even more happy, because of the water. If you wash your hands with soap, your hands become slippery and the microbes can't hold. They will be rinsed away with the water and your hands will become clean. (If you scour your hands with sand, as is prescribed in the Koran in case there is no water, you will scour the microbes away with the sand. If you defecate in the field and you don't have water and soap to wash your hands, scour them with sand.)

It is especially important to make your hands free of microbes before you eat.

If the towel, with which everyone dries his hands, stays always a little bit wet, microbes will multiply there. You can smell it sometimes. Wash a towel often and dry it after use in the light of the sun.

Last week we put some dung in the drinking water and we talked about the illnesses we can get if we would drink that water.

Let us do the same with dust. Demonstrate it.

We talked about the fact that the yard can contain many microbes. Those ill making things stick not only on your hands, but also on the dust. Filtering the water will take the dust out, but most of the microbes will go through the cloth (filter) with the water. Don't let dust come in your drinking water. (How can it come there? what can we do to prevent this? Don't take the water out of the tank with a container, that sometimes stands on the ground, but make a tap in your tank, don't open the lid of the tank too often, because the wind will blow dust in it, cover the bucket with a piece of cloth, if you are getting the water etc.)

Summary:

-Be aware of places where microbes feel happy and clean them with water and soap or kill the microbes by putting them in the sun light.

-Wash your hands with water and soap before eating something and after defecating and every time when they are dirty. Teach your children to do the same.

WORMS (those who are spread from stool to mouth)

Questions to introduce the subject:

Are there children (or grown up people) in the village with worms?

Probably the answer will not be "no", but, if is answered "no", you can explain, that you had a child (tell which) with worms in the unit. Show the bottle with ascaris and tell the people, that worms like those came out after he took the medicine. Ask the mother or the people in general what the symptoms were. If the answer is "yes", ask:

How do you know, that your child has worms?

Sometimes you can see the big worms in the stool. (Show the bottle with ascaris and ask: like this?)

Sometimes you can see very tiny worms in the stool. (Show the bottle with dreadworms: like this?)

There are also other worms, they are even smaller , so small, that you can't see them with the naked eye.

Normally a lot of symptoms are mentioned; if not so, ask:

How is the appearance of your child? How does he feel?

Weak, pale, not active, not strong, thick belly, thin arms, sometimes coughing, very thirsty during the night, having a lot of mucous, pain or cramps in the belly, sometimes vomiting big worms, etc.

If other symptoms are mentioned, that you don't recognise as coming from worms, ask if somebody has those problems and invite this patient to come to the unit; maybe he has an other illness.

Not all stomach cramps are caused by worms!

Show a picture of a child with worms and repeat the symptoms.

How is the appetite of the child ? (if not already answered)

Is it dangerous to have worms?

The thin worms aren't too bad, but they cause itching near the anus, the big ones can make the child very weak and therefore susceptible for other illnesses. The worms grow in the belly and eat the food of the child and that is the reason that he can have a big belly and thin arms and legs; they grow well on the food while the child is suffering. (You are preparing the lunch for the worms and not for the child.)

Therefore the symptoms of a child that has worms and a child that doesn't get enough food are sometimes the same. Maybe you think the child has worms, but he just got not enough food.

Also after taking medicine, the child will be skinny. You will have to protect him as much as you can against illnesses and let him eat more times a day than usually. (6 times a day).

(If there are very many worms and they are growing big, they can block the intestines and that is dangerous.)

What do you do when your child has worms?

The villagers can answer: "Go to the clinic for medicines, buy medicine (how much does your child need?), make medicine from a tree, make medicine of the leaves of the peach tree, use a purgative to rinse the worms out etc".

Tell the best way is to come to you and you will see if the child really has worms and which medicine are the best for him and how much he has to take. Tell that there are different worms and therefore also different medicine against worms. Show them the different medicine you have and show the medicine they can buy from the shop.

The shop keeper probably can't tell you how you have to give the medicine and he may not know when the medicine is expired.

He will not say that it is very important to feed the child more after recovery and usually does not tell how you can prevent getting worms, because he wants to sell as many medicine as possible.

The packet of the medicine of the shop are nicer, because the factory wants to sell. In the clinic we don't have nice pictures on the medicine, because we buy in a big quantity and only give the amount of pills or syrup the child needs.

And you don't have to pay for the medicine in the unit.

If the child has an other illness, or if he is very weak, the primary health care worker can help also, where the shopkeeper only wants to sell the medicine.

After taking the medicine the worms will die and the dead worms will come out with the stool. In case of the big worms, you can see them, in case of other worms -the very tiny ones- you can't see them in the stool. But even the big ones can not always be distinguished in the stool. If they are dead and they are in the intestines for a longer time they will be changed, like the food; you can't see in the stool, that you ate rice or tomatoes, but sometimes you can see rests of it, which are changed. So, if you can't see the worms in the stool after taking medicine, this will not be a proof that there were no worms, or that the medicine was not good.

A week after taking the pills the child will feel better and so you can see that the medicine helped.

Who knows were worms are coming from?

A lot of things can be mentioned e.g. sugar, dirt in general, drinking unsafe water etc.

Show the pictures and explain that the only way you can get worms is, if a little bit from human faeces comes to the mouth. It may be so little, that you can't even see it because the worm eggs are so very small, that you only can see it with a microscope. A microscope is a kind of glasses that shows things much bigger than they really are. (If you put a flea under it, it seems as big as a mouse, or 1 film seems 1 rial).

If you go to the hospital and the doctor wants to check, if you have worms, he puts just a little bit of the stool under the microscope, like this (show the objective glass with the stool) and if he sees worm eggs, he knows for sure, that you have worms. You can imagine that, if in such a little bit of stool there are already a lot of eggs, how many eggs there will be in the whole stool; thousands of them. And all those eggs are just lying on the street. If they come in your stomach, they will hatch, a worm will come out and this worm will grow bigger and bigger in your intestines, providing of your food.

-How can they come in your mouth?

(It is difficult for the people to imagine.) We saw on the picture already the child that ate the apple. What do you think of drinking the water from the source near the tree? Is it possible that there are worm eggs in it?

You see that it is very easy to get infected with worm eggs over and over again.

Help the people with coming up with examples. Is it possible that a child that is playing on the ground over here (show a picture) gets worm eggs on his hands, or under his nails? What will happen if he will eat a piece of bread, without washing his hands? Talk a little bit about the fact, that small children are always putting their fingers or anything they find in their mouth. Therefore it is very important that their nails are short and that they wash their hands very often.

Can a fly have worm eggs on his legs? Is it possible that some of them stay behind if he sits on the food?

Sometimes people defecate in the agriculture field or near the vegetables in the yard. Worm eggs can come on the salad or onion leaves. You have to wash your raw vegetables very carefully to rinse those eggs away, if you don't want to get worms. If you cook the vegetables the worm eggs will "die", like a chicken egg you boil. The eggs will also be killed by the light of the sun, so it is a good practice to put towels and clothes you used to clean baby's buttocks and other things, that may contain some worm eggs, in the sun light.

-Are there good customs in the village to prevent getting worms?

Washing hands before eating, covering the food, not using the shoes in the sitting/dining room, covering the food against flies and dust, washing the food before use, etc.

-Are there customs, that favour getting worms?

Not using soap when washing hands, using the street, or even worse the yard as a toilet, having wet cattle dung around the house which promotes flies, having garbage and waste water around the house; this attracts animals, which walked through human faeces and this promotes flies.

Don't mention yourself all those things, because they will come back in other sessions, just let the people think about them.

Do talk about the fact that small children use the yard as toilet. In their stool can be thousands of worm eggs. Those worm

eggs are not quite the same as chicken eggs, because worm eggs stay alive even when they are cold. They are more like a grain of maize; a grain of maize will stay "alive" during more than a year without water, and when we plant it, after a long period, in moist earth, it will produce a new plant. The worm egg can stay for more than a year just as it is and, if you get it in your mouth and then in your stomach, a worm will grow out of it. So, the stool itself you can't see anymore, but the eggs will be still there in the dust, waiting for somebody, who will touch them, they will stick on the fingers and they will come in the mouth, if those fingers are put in the mouth. Therefore it is always very important to wash your hands carefully with soap, before eating and after defecating.

If you wash your hands with soap, the worm eggs cant stick on your fingers and will be rinsed away.

Hand wash demonstration.

You can also wash your hands with clean sand if there is no water available e.g. if you defecate in the field. (In the holy Koran is also written that you can wash yourself with sand if there is no water). The worm eggs will be scoured away.

Of course you will bury your faeces and put a stone on top, so that dogs or goats or flies can't take the worm eggs to the yard of your house.

Summary:

- If your child has worms go to the primary health care worker.
- After recovery the child is still skinny and weak; you have to protect him as good as you can against other illnesses and give him extra food at least 6 times a day.
- The only way you can get worms is by the route from stool to mouth.
- Use toilets,
- cover the stool, also from small children,
- wash your hands before handling food, before eating and after defecating and every time they are dirty,
- wash raw eaten vegetables well,
- protect the food and yourself against flies and dust.

Diarrhoea:

Questions to introduce the subject:

- Do your children sometimes have diarrhoea ?
- What do you call diarrhoea ? (to agree on three or more watery stools per day. With breast fed babies three or more rather loose stools a day is not called diarrhoea).
- How do you feel when you have diarrhoea?
- Do you eat and drink ?

Explanation:

Although you eat and drink the body doesn't accept the liquid and food. The road from the belly to the body is blocked. Demonstration with the two half bottles. It is very dangerous when the body doesn't receive liquids. (flower with and without water, picture with flower and child)

-How does a de-hydrated child look like ? (Demonstrate with a shawl over your hand the loose skin and the sunken fontanel. Explain that the body doesn't contain enough water, so that it produces only a little bit, dark coloured urine and no sweat and no tears.)

-If the road from the belly to the rest of the body is blocked, what can we do?

The road will partially open up with ORS. The body will not only accept most of the ORS, but some other liquids also and maybe some food. Again demonstration with the bottles, the holes partly open now.

You have to give the ORS in small quantities every 15 minutes during a few days. Give it always before you give other drinks or food and after every bowels movement.

The belly is tired and some foods or liquids will upset the belly even more, as there are: very hot and very cold things, fat, raw things (except bananas), spicy food, carbonated drinks.

A mother who is breast feeding her baby should not eat this either.

Some food is comfortable for the belly, as there are: weak tea without milk, rice water, mint tea, potatoes and rice cooked in water without additives, mashed cooked carrots, yoghurt, bananas, biscuits.

Continue breast feeding. If a child accepts nido put twice as much water during the first two days.

After recovery the child is still weak and thin. Its very susceptible for other illnesses; it should eat six times a day.

Show a child with diarrhoea always to the health worker. He or she will see if medicines are needed or if it is necessary to go to a hospital.

It is very important, that children get the ORS, before they go to the hospital. 80% of the children with diarrhoea die in the hospital because of dehydration. If they had taken ORS before and during their travel to the hospital, they may have lived. Therefore, if the parents want to go to the hospital, don't say that this is not necessary, because then they will not come the next time to you, but they will go straight to the hospital. You don't have the possibility to give ORS for the road then. Don't mention the fact, that diarrhoea can come from dirt for the same reason. If the little patient is bottle fed, smell the milk. Even if the milk and the teat are not smelling, ask how the parents prepare the milk, which kind of milk they are using and how they clean the bottle and the teat.

-Where does diarrhoea come from?

Possible answers from the villagers:

-From Allah. Possible reaction: Everything comes from Allah. Food comes also from Allah, but, when a farmer doesn't plant the seed and does, t do the agricultural work, he will have no harvest and therefore he will have no food.

-A baby getting teeth. Yes he can have some diarrhoea, but this is normally not too serious. Give him enough to drink and continue breast feeding. He will put everything in his mouth. Be very careful with this, because a baby doesn't care, if the things he puts in his mouth are clean or not. Dirty things in the mouth can give also diarrhoea, sometimes serious diarrhoea.

-From other illnesses and high fever, like ear infections, malaria, worms etc. Treat the illness and the diarrhoea will stop.

-When a mother, who is breast feeding her baby, eats special things, like very spicy food or special medicines, her baby can get stomach cramps and diarrhoea.

-Food that isn't good anymore. Show mouldy bread and ask what it does to the body, if you eat it. Same with passed meat. Tell again something about microbes you can see and you can't see.

Open a feeding bottle and let the people smell it. Have a bottle yourself with sour milk in the teat and let the people smell it. Even very small rests of sour milk can give a baby diarrhoea. The luke warm milk in a bottle gets sour very fast, within a few hours. If you give your child bottle feeding, don't let the baby lay alone with the bottle; give it yourself and throw the rest of the milk and clean the bottle and the teat carefully with hot water and soap and rinse it with good drinking water. Boil the teat once a day to kill all the microbes.

The bottle with milk and rests of the milk on the face and the clothes of the baby will attract flies and they also can transmit diarrhoea.

-Drinking water that is not of good quality. Show the shamlan bottles of the first meeting.

-Dirty things that touch the mouth. Things that are contaminated with stool are even very dangerous.

-If a small child doesn't get the food it needs, it can get also

diarrhoea. This is very dangerous and it is of course not possible to treat this kind of diarrhoea with medicines. A good diet is the only solution. Feed the child at least 6 times a day. If this child gets bottle feeding, follow the prescriptions exactly. Maybe you put too little milk powder. Give a child in the waning period enough food of different kinds. (Talk about which food the mothers are giving, how often, special preparation of the food of adults to make it nice for the small child, a special plate for the small child, so that you can see how much it eats etc.)

If people mention the milk of pregnant mothers as cause of diarrhoea, tell them, that you don't think that this milk is dangerous. However it is better, that the mother gets a rest from breast feeding, being pregnant. Stress again the importance of waning food.

Show the pictures of the road from stool to mouth again. Here the way goes from stool, to chicken, to child, to the mothers hands, to the bread, to the mouth. Where can you cut this way? Are there other ways from stool to mouth? (Very common: from the stool, to the dust, to the hands, into the mouth. An other example: from the stool, to the legs of flies, to the food, into the mouth.)

Do the hand washing demonstration again. When do you have to wash your hands? What do you do to prevent the flies to touch the food?

Cleanliness can prevent a lot of diarrhoea. Clean your hands, your clothes, your plates, your house, your yard.

In the garbage the microbes will multiply, because there is enough food for them and enough water. Besides, the sunlight can't come through the garbage to dry things and to kill the microbes. Flies will also breed in the garbage, for the same reasons as the microbes. Get rid of the garbage in a proper way. Animal dung is also a nice breeding place for microbes and flies. Keep animals away from your yard, as the small children are playing there. Don't feed your cows in the entrance of your house, because everybody, who enters your house, will take some of the cow dung into your house.

We will talk about those last items more detailed an other time.

Summary:

- There are a lot of causes for diarrhoea.
- The danger of diarrhoea is dehydration.
- Show every child with diarrhoea to the primary health care worker. She or he will see if special treatment is needed. She or he will always give ORS.
- To prevent dehydration ORS is necessary. ORS will also make it possible for the body to accept some food.
- A child with diarrhoea needs food.
- Go on with breast feeding. If the child gets only the feeding bottle put twice as much water in the bottle during the first 2 days of the diarrhoea.

-Sour milk in the teat of a bottle is a very common cause of diarrhoea. Boil the teat once a day with water. Throw the rests of the milk.

-After recovery the child needs extra food. Give it at least 6 times a day something to eat.

Skin diseases.

What do you do if you have a small wound?

Possible answer from the villagers : If it is very small, I do nothing; I wash it and put a plaster on it; if it is profound, I urinate on it, or burn it, I put special herbs to stop the bleeding, I put coffee on it, or sugar, honey or salt, some people put dung on it.

There are good things among the ideas of the people, there are things, that do neither harm, nor good and there are dangerous things.

Let us talk a little bit more about small wounds.

The skin is a very good protection against ill making things. (microbaat).

How can you see that?

If you have dirty hands, there will be a lot of "microbaat" on them. They can't enter through the skin in your body. But, if you put your hand in your mouth, without washing it first, the "microbaat" will reach your stomach and you might get diarrhoea or worms. If you touch with dirty fingers your eyes, you might get an eye infection, because your eyes are not protected by the skin.

What will happen if your skin is damaged by cutting yourself, or scratching yourself with your nails?

The defense is broken and "microbaat" can enter. This may cause a skin infection.

What can we do to prevent this?

Before you treat a wound, you have to wash your hands carefully with water and soap, so that are no microbes left on your fingers.

Then we have to wash the skin around the wound carefully with water and soap. In that way we will rinse the "microbaat" away so that they can't enter the wound. The wound itself will be cleaned by the blood, that is running out of it. If there is not much blood, and the wound is not profound, you can clean the wound by rinsing it with boiled water.

If the wound is only small it will heal by itself. The sunlight and the air helps the healing process.

If flies with their dirty legs, are coming on the wound, you have to protect the wound with a very clean, dry piece of cloth, or with a plaster. (A piece of cloth is clean, without "microbaat", when it is boiled in water for 10 minutes and dried in the sun, or when it is ironed with a hot iron.)

Don't touch a wound with your scarf, because it probably was used for brushing other things and it is never free of microbaat. (Show how women sometimes are using their scarfs; make it a little bit funny, but don't exaggerate.)

Remember that the "microbaat" are coming from the skin or the piece of cloth into the wound. If the skin was clean before, the chance to get a skin infection is less.

Wash your child often and keep his nails short and clean and wash his clothes often.

It is also possible, that the dirt is coming into the wound by the thing, that made the wound (a knife or a nail). This dirt can come out of the wound by the blood and by rinsing the wound carefully with boiled water. However this is not possible if the wound is profound and is not bleeding a lot. These are very dangerous wounds. The "microbaat" that give tetanus may enter the wound. You have to go to the clinic with a wound like that. (Have your children vaccinated against tetanus!)

Urine doesn't do any harm and may kill some germs, but it will not reach the bottom of the wound. (If urinating is painful, you may have an infection of the ureter. Then urine has microbes in it and urinating on the wound is harmful. Go to the clinic!)

To put dung, or sand or mud on an open wound is very harmful, because they always have a lot of microbes in it.

(Of course you only talk about urine and dung on a wound, if the people are mentioning it themselves.)

Be careful where you throw empty tins with sharp edges, nails, broken glass and other things that make easily wounds. Children are playing everywhere sometimes without shoes.

It is not always possible to prevent a skin infection.

What do you do if your child has a skin infection?

Possible answers: Go to the clinic, keep the wound open with a knife (can be dangerous), press the pus out of it (can be more dangerous), burn the place (can give dangerous wounds), etc.

Advise: If it is just a small infection, wash the spot at least 3 times a day with water and soap and keep it exposed to sunlight at least 3 times a day for a quarter of an hour. The sunlight will kill the germs.

If the infected wounds are on the head, you will have to cut the hair, so that the light and the air can reach infection and so that it is easy to keep the spot and the surroundings of it clean. Don't cover the head.

Wash the clothes that cover the spot very often, also the child's cap.

The liquid that is coming out of an infected wound (pus, or watery liquid) is full of germs. If this comes to your fingers and then from your fingers on an other tiny wound, or into your eyes, you will get an infection there also.

Wash your hands not only before, but also after you treated an infected wound.

A child will touch or scratch the infected wounds and will spread with his fingers the infection to other places. Let the child wash his hands very often. Don't let this child come close to babies.

The cloth, which you used for cleaning the wound, will be full of germs also. Burn it, or boil it and dry it in the sun, so that it cannot cause other infections.

What do you do with a (closed) abscess? Let it ripen by putting hot compresses or a compress with the skin of a fig, or with fig leaves. Cut it open (can be dangerous) etc.

Advise: Never press or push on an abscess. The body build up a kind of defense, so that the germs can not go to the rest of the body. That is the hard, red spot around the abscess. If you press on it, you will break the defense.

You can put a hot compress on an infected wound or an abscess. (Demonstrate how.) The abscess will ripe and a yellow spot will develop. Then the abscess will break by itself and the pus will come out.

Never cut or pierce a abscess with a dirty knife or pin. With a bad infection you have to go to the clinic.

Burns:What do you do with a burn?

The people will come with a lot of ideas, e.g. putting toothpaste, laban with or without sugar, oils, even donkey's dung. (The last thing is very dangerous!)

Advise: Use as quickly as possible a lot of cold water to cool the burn. You have to do this until the pain is lessened, at least 10 minutes.

If there are blisters formed, don't open them, because dirt can come in an open blister and cause an infection.

Be very careful with an open wound from burning, because they infect easily and heal slowly. Don't put anything on it, but use only a lot of clean, cold water and go to the clinic. To put donkeys dung on it is a very dangerous practice, because dung is always full of microbaat.

Protect the wound from dirt (microbaat) coming in by using a kind of bandage; it is better if the primary health care worker put this protection.

While burning causes a lot of pain, sometimes bad infections and very ugly scars, even sometimes death, we have to do everything possible to prevent our children from burning.

What do you do so that your child will not burn itself?

Stimulate the discussion. There can't be anything new for the people, the discussion serves for reminding and motivating the people to act regarding their knowledge. (To start the discussion, you can come with a dangerous example, like: What do you think of a small child in the room with a 6 years old sister and the very hot "salta" is on the hot ashes?)

Itching: What can cause itching?

Possible answers: insect bite, some medicines, with some persons some kind of food, some plants or animals, scabies, some illnesses like chicken pocks, etc.

What do you do against the itching?

If it is just from a mosquito bite, I lick on it. (to spit on it is better, because in that way the microbaat on the spot can't come in your mouth). Some herbs will help, like oil with turmic powder, henna with do'om leaves, nintree etc.. There are also some medicines against itching.

To use cold compresses, or cold water may alleviate a lot.

Keep the nails of children with itching very short and let them sleep with gloves or socks over their hands. The wounds from

scratching will almost certainly infect.

Eye infections:

What do you do when your child has an eye infection?

Ideas from the villagers: We will do nothing because the eye will clean itself, we clean the eye with just a cloth, which will be used afterwards for other things (dangerous), sometimes mother milk is used for cleaning the infected eyes (a good practice, because this is free of germs and is soft for the eyes, but mother milk is not always available), we go to the clinic for medicine etc.

Advise: eye infections spread easily from one person to the other by the pus; even if you can't see it, you can have some microbaat of eye infection on your finger or on a cloth or towel.

If an other person touches your hand or that cloth and after that his eyes, he will have an eye infection also.

Flies also can transport the infection from one person's eyes to other person's eyes with their legs, and flies like to be on infected eyes.

What do you do if your child has just a moderate eye infection?

Go to the clinic to get medicine.

Follow the instructions of the primary health care worker how to put the medicine in the eye. You have to put it under the lower eye lid. Medicine outside the eye does no good of course.

Before you put the medicine you have to clean the eye from the pus.

Use a clean piece of cloth and boiled water. Clean the eye towards the nose. If you are doing it towards the other side, you will push part of the pus under the eye lid.

Be very careful with the cloth with pus. Burn it; never use it again for other purposes.

Never use a shawl for the cleaning.

Eye infections will heal very often just by cleaning the eye every time with boiled water.

Summary:

- The skin is a very good defense against germs.
- Keep the skin clean.
- Clean the surroundings of wounds with water and soap.
- Rinse a wound with boiled water.
- Wash your hands before and after treating a wound.
- Burn or boil the cloth or cotton wool you used for cleaning an infected wound, or an eye infection.
- Treat a burn with a lot of cold water, during a long time.

Bilharzia:

Introduction questions: -Is there bilharzia in the village?
 (The answer has to be "yes", because you only mention the subject, if you know that there is bilharzia; it is possible, that the people don't know the name).

-How do you know that you have bilharzia; how do you feel?

Blood with the urine.

pain when you urinate.

pain in the belly. (possible)

weak.

anemia.

-Is it a dangerous disease?

If is answered "Yes, because a weak child can get easily other illnesses", affirm this with enthusiasm. If is answered "no, because everybody has it and nobody died from it" ask then, if somebody ever recovered from it without taking medicines. The illness can last your whole life and after 5 or 10 years it can give very dangerous troubles. You will think, that you have an other illness, but the cause of that illness is, that you had bilharzia for a very long time.

-What do you do when you see that your child has blood with the urine? In bilharzia zones a lot of people find it quite normal, if their child has blood with the urine. It is necessary, that they go to the health centre to find out, if the child has bilharzia and if so, it has to be treated.

-Are the medicines always effective to get rid of the bilharzia? Some will say "Yes" others, that they get it very soon back. In that case it is not because the medicines are bad, but because you get a new infection.

-Who knows where the bilharzia comes from?

Possible answer: from the dirty water, from that birka, from the wadi. Agree on that and take time to explain the bilharzia cycles with the help of the pictures.

If is said, that it comes from the sun after a swim, react on that, not only with no, but g.e. that you should expect then, that it should be cured within a week. It is not the sun, which did the harm, but something in the water.

Take one picture in your hand and explain what you see on it. Put it then on the line.

The blood in the urine is caused by the eggs of the bilharzia worm. This is a very small worm, that you can't see with the naked eye. It lives near the bladder and it produces hundreds of eggs every day, which leave the body with the urine. Those eggs have a very sharp point to make their way to the bladder. In doing so, they make small wounds, from which blood comes into the bladder, where it mixes with the urine. If there is blood in the urine, there are also hundreds of eggs in it. If the eggs fall on the ground or in the hamam, they will die (like the eggs of a chicken die, if the chicken won't sit on them), but if they fall in water, they will hatch. If they don't reach a snail within half a day, they will die. They enter a snail, stay and

grow in the snail for a few month and then get out of the snail into the water. Those tiny bilharzia worms are the danger for the people. They look for a human being to enter it through the skin. If they don't find , they will die within 3 days. (Show first a real bilharzia snail and then the picture). In the picture you see the tiny worms, looking for a part of a human body to enter. they are very happy to see a foot. They enter it and will stay alive. Whose foot is it? Ahmads. In the body they will grow into adults, which will stay near the bladder and will give hundreds of eggs a day.

If the Ahmad is healthy again after taking his medicines, he goes for a swim. Then again some tiny worms will enter his body and after 1 or 2 month his urine will contain blood like before. (Repeat briefly the cycles with all the pictures on the line. Every time, when he touches the water, he will get bilharzia again. Let the people themselves come with examples how he touches the contaminated water; (washing, fishing, getting water for irrigation etc..)

-Knowing where bilharzia comes from, what can we do to prevent it?

a -It is forbidden to urinate in or near water. (Turn the picture with the child urinating in the water and put the picture of the hamam. Do the same for the other preventive actions).

b -Don't walk, swim, wash, touch water that is contaminated with bilharzia. This water is not dangerous anymore, if you store it for 3 days (without any snails of course).

c -Get rid of the snails in the birka. Clean it from mud and herbs, as snails like to eat them and to lay their eggs on them. Build a small wall around it, so that new snails can't enter.

d -Take medicines as soon as possible if you have bilharzia, so that you can't contaminate others.

It is difficult to keep snails out of the wadi. Where the water streams very fast, there will be no snails, but in the water besides the main stream, there are always snails. Be careful not to touch this water. Walk on stones, don't wash your clothes there etc..

Go with the people around in the village. Look for snails with them with plastic gloves on and boots. If anybody touches the water, let him wash his hands immediate with clean water and soap. Make a show out of this, so that the people will remember.

We have talked about bilharzia that gives blood in the urine. There is also a bilharzia that gives blood and bilharzia eggs with the stool. The way of contamination is exactly the same.

The primary health care worker knows, if this kind of bilharzia is present in the village. If not, don't talk about it. If it is present, mention it in a few words, so that the people will know that they can have bilharzia without blood in the urine. It is sometimes difficult to see the blood in the stool. In other sessions about worms and diarrhoea we talked a lot about the

danger of human stool and the people know already, that it is forbidden to defecate in or near water sources.

Summary:

- never urinate or defecate in or near a watersource, (the same for cleaning yourself before praying),
- go to the clinic if you see blood in the urine and take all the prescribed medicines,
- don't swim, walk, wash, etc. in contaminated water, unless you stored it for at least 3 days without snails,
- clean the birka of mud and water plants.

MALARIA

-Malaria: (Only if there is really a malaria problem)

Questions for introduction: -Is there malaria in the village? (of course the primary health care worker knows, but he wants that the people think about the illness).

-Is there malaria during the whole year?

Possible answers: Yes

During the rainy season

Not during wintertime.

(The last two answers you can use, when you explain that malaria is transmitted by a special mosquito).

Did anyone of you suffered from malaria and how did you feel then?

-cold, shivering, fever

-headache

-diarrhoea (possible)

-one day rather well, the next day ill (possible)

-weak, also after the illness

-no appetite

-vomiting (possible)

-the illness comes like a blow, very sudden.

If people mention other symptoms, which are not specific for malaria, explain: -sometimes, if the blood is not examined, an other illness can be mistaken for malaria.

-during and after the malaria, you are very weak, and therefor very susceptible for other illnesses. Maybe you had two illnesses at the same time.

If the people mention "yellow eyes", or other symptoms of hepatitis, it is possible, that they confuse the Arabic word "marara" and the English "malaria".

-What do you do, if you think, that you, or your child, have malaria?

Possible answers from the villagers:

Stay near the fire and take milk and honey.

Go to the pharmacy and buy some anti-malaria tablets.

Reaction: Does this help always? Do you know how much tablets you, or your child, need? If you take too many pills, it is bad for your health, especial for small children; if you take less, the illness may come back within two weeks. Some kind of tablets are dangerous for the unborn child of a pregnant woman.

With malaria it is like a lot of very tiny animals are eating your blood. The doctor can see, if those animals are present in just one drop of blood with a microscope. (He does not see the animals themselves, he sees the result of their presence). If you don't take enough medicine, some of those animals die, but others only get a big blow, are unconscious during a time, then they revive and are stronger than ever, making you even sicker than formerly.

Therefore it is very important to take enough medicines, during 4 days to kill all those tiny animals.

In the pharmacy they can't see if you really have malaria, maybe you have another illness. It is better to come to the clinic. Sometimes there are other medicines needed, because you have only the strongest animals in your blood.

It is not necessary to use injections against malaria. Tablets have the same effect, and are not too dangerous.

-Do you do something against the high fever?

If is answered "keep the child warm", explain that for other illnesses this is not a bad custom, because sweating can help sometimes, but, that, in case of malaria, the temperature can become too high. The head of the child can not sustain such a high temperature and sometimes the child will have sudden strange movements (convulsions). This is very dangerous.

If you touch the child, he feels hot, even when he complains about being cold.

What can we do to prevent that he will be too hot?

What do you do when your tea is too hot? You can put it in a bowl with cold water and add some cold water to the tea. (Demonstrate it ; not because the people will not understand it, but because they will remember it). We can do the same with the hot child; wash him with cold water and /or put cold compresses on the head, in the armpits and in the groins. Demonstrate this with a doll. (It is better to demonstrate it with a real child, but he probably will not allow the cold water). Give him also something cold to drink (water, cold tea, cola, fruit juice, etc).

The child is probably thirsty and will like to drink, but even if he doesn't want it, keep trying to give it to him.

On advise of the primary health care worker you can give a little aspirin, or paramol.

If your child doesn't want to eat, don't force him, but give him drinks that are nutritive, like soup, fruit juices, milk, etc..

Even after recovery, he will stay weak. Give him small quantities of food, 6 times a day.

As the malaria "eats" blood, you will give him extra food that makes the blood strong; green vegetables, beans (foul), eggs, meat, liver.

Because your child is weak, (and can stay weak during a longer period) he is very susceptible for other illnesses. Be careful with draught, smoky kitchens and children with other illnesses. Keep the child and his surroundings extra clean.

-Where does malaria come from?

Some people will know from mosquitos. Maybe they mention from the change of climate, from cold to hot. Tell that the bite of a certain kind of mosquito can give malaria. This mosquito lives only in hot climates, like p.e. a papaya only grows in hot climates.

If is mentioned ,that malaria is not manifest during wintertime, remind it here.

So, if we are not bitten by this mosquito, we can't get malaria.

-What can we do to prevent malaria?

Screen the house, sleep under a mosquito net, use the smells that

repel mosquitoes (The smell of certain herbs do repel them)
 -Where do you see a lot of mosquitos? In the wadi, near water, in the shade of trees and herbs?
 Mosquitos breed in water. (show a picture of eggs and a larva, or better show them in reality). Avoid stagnant water near the house, fill holes with earth, open tins always from two sides, remove garbage etc.. Make a walk with the people in the village, to show risky sides and to advise, how to prevent them.
 If rainy season was mentioned as malaria time, remind this here.

Only mention preventive dose of medicine for pregnant women and very small children, if that is used in the village.

- Summary:-** If you think that you have malaria, go to the clinic as quick as possible,
- take all the medicines, and not part of it,
 - be very careful with the child, also after recovery,
 - protect yourself against mosquito bites,
 - beware of stagnant water around the house.

the windows, don't spray it on the flies, but spray it near the floor and in all corners, but not on food and not on the mattresses, wait until all the flies are dead (about 1/2 an hour), open the windows (if screened) to let the poison get out. Then you can enter the room again.

w: Do you know what the "babies" of the flies look like? Show real fly larvae to the people. It is incredible that this living things will become flies. Put a few in a empty bottle covered with a piece of cloth with the dirt where you found them and show the people, when they have changed into flies.

w: Have you ever found these babies of the flies? Where?

p: In the dung, in the stables, on dead animals, on rotten meat, under a wet garbage.

w: You will never find them in dry places in the sun. The sun will kill them. (Put some in the sun and let the die there, so the people can see.)

This week I will ask you and your children to look for those "baby flies". Look in the stables, under the garbage and all other places where you think those creatures should be happy. If you find a lot, give them to your chicken; they will like them. Next week we will talk about what we can do to eliminate those places. Maybe you can think already about it.

Remind: without those "baby flies" there will be no adult flies to trouble us.

Garbage.

Why do I not like to see garbage everywhere?

Possible answers from the villagers: It is not nice to see, it is dirty, you bring easily dirt into the house if you have garbage near the door, the animals are looking for food in the garbage and make the garbage heap even more dirty, you will have more flies because they breed in the garbage, microbaat will multiply in it, etc.

phcw.: If I only throw a clean plastic bag on the ground, like this (show it), what can be the problem?

Show the bread; half of it you put a week before in a plastic bag (preferably in front of the people) and has a lot of mould and half of it you kept just in the open air and is dry and without mould. If you eat the mouldy bread, you probably will get stomach problems.

The mould is a kind of microbe, you can see. In the bread in the plastic bag the microbes multiplied very fast, because the bread stayed moist.

If you throw a plastic bag on the ground, the same will happen with the microbes under it, because the ground will stay a little bit moist and the light of the sun can't reach the ground to kill the microbes. Now you know why it is better not to throw a clean plastic bag away. It is better to burn it. The same is valid for paper, empty water bottles made of plastic, carton etc. In the village there is no place to collect these items and therefore everybody throws them away. It should be nice, if near every house was an empty drum, or a small circle of a few stones, where the burnable garbage can be collected. Everybody, child and adult, can get used to throw their candy paper or cigarette box there. (Put a stone on top, so that the papers don't get blown away by the wind.) Now you can set fire to it the moment it is convenient to you.

There is also garbage that can't be burned, but which is harmful, because it causes easily wounds. (nails, empty tins, glass etc.) Make a small hole, (preferably where the small children can't enter and not too close to your house) and throw this garbage in it. It is wise to take the bottoms out of the empty tins, so that they can't contain water, in which mosquito's will breed.

The rest of your garbage will consist of organic matter (peels of bananas, onion rests, straw, rests of qat etc.) This will attract animals which will defecate there, flies will breed in it, it stays always a little bit moist, so microbes will multiply. It is better to bring this waste to the animals instead of let them come to the yard to look for food, dirtying the yard.

The rests, that even the animals don't eat can be used in your small home garden. (Spread it on the earth, to protect the soil.) Teach your children to help you to keep the surroundings free of garbage. (At school they also discussed this item.)

Summary: Split your garbage in 3 components: the useless burnable (collect and burn), the organic (animals, garden) and the rest (in a hole).

Wet spots and waste water.

phcw: Why is it dangerous to have stagnant water (wet spots) around the house?

p: Flies and mosquitos breed there, microbes will multiply there, animals like to be near water and they will dirty the place, dirt will stick on your shoes when it is wet and so you take easily dirt with you into the house. Children like to play near mud, which is a risky place, as we saw.

phcw: Do you have a lot of waste water? From which activity?

p: From washing (bathing), from the laundry, from the outlet of the hamam, from leaking taps, from the roof in the rainy season, in the stable from the urine of the cows etc.

Maybe it is a good idea to ask the people to control their yard for wet spots during the coming week. Start the next week with a walk through the village to see waste water- and garbage problems. Then you can talk about possible solutions at the spot. Maybe somebody needs an advise or an encouragement, when he is trying to make his environment healthier. It is necessary to show daily interest; you will learn a lot of it yourself and it may encourage you as much as the people.

phcw: What can we do with the water that leaks out of a tap?

It is nice to have a hole filled with stones and gravel under a tap. The earth will absorb (drink) the spilt water and the ground around the water tank will always be dry. If the tank stands on rock, the water will not cause a problem, although it is better to put an empty bucket under the tap.

The water from the laundry and from washing can be used for a garden or for a few trees. Make a ditch to spread the water and plant your plants on the ridges.

The first water from the laundry, which contains a lot of soap can damage the plants, although some trees can take it. This very soapy water you can use for cleaning floors, or the hamam or the stables. The rests of it you can throw away at distance.

The water that runs out of the hamam you can use also for a garden. If you don't have one, or you don't trust the water quality for vegetables, you can dig a pit and fill it with stones. You can plant a few trees around the pit; this will help to get rid of the water.

If your house has been built on rocks, you have to connect the outlet from the hamam with a pipe to lead the waste water to a safer place.

Waste water is also used to make dung cakes. The spot where this is done is not a save place and it is very difficult to make it a safe place. It is a happy breeding place for flies and microbes. Don't make the dung cakes too close to the house and fence the place, so that children don't play around it and animals can't come close.

Summary: Be aware of the danger of muddy places and do everything you can to avoid them.

Difference between a weak and a strong child.

(This subject is very useful to see if the people did understand the earlier subjects in such an extent, that they see the relation with normal life.)

Show the picture with the strong child. (no. 1)

Ask the people what they see.

Possible answers:

-nice, strong, healthy, fat, clean etc.

How do you see that the child is healthy?

-Because he is fat, because his eyes are happy, because he has a nice clean skin, because he is playing, because he is active etc. Recapitulate the clear eyes, the activity, and the fact that he looks well fed.

Show the picture with the weak child. (no. 2)

Ask the people what they see.

Possible answers:

-Poor child, skinny, sad, not active, not healthy, not clean etc.

How do you see that he is not healthy?

-Because he is too skinny, because his eyes are watery and sad, because his mouth is sad, because arms are very thin, because he doesn't seem active etc.

Recapitulate the thin arms, the watery eyes, the inactivity.

Suppose the child on picture 1 is the same child as that on picture 2. Picture 2 was taken 3 month later. What might have happened in between?

The people come with a lot of different suggestions, sometimes also with solutions. Listen carefully and let them suggest as much as they can think of, by asking: Other things, that might have happened?

Doubtlessly diarrhoea and worms are mentioned. Maybe also malnutrition.

If this was your child and if he had worms and looked like the child on the picture, what should you do?

Let one person answer as completely as he can and ask then, if others can add anything. Possible answer: "Go to the clinic for medicines."

"Maybe he will have worms again after a week. So the medicines alone will not be enough". From the answers you will get on this question you can see, what the people learned from the health session about worms. If they will put it in practice, is still a long way to go. Walks through the village and home visits can stimulate the people to look with other eyes to their own surroundings.

"If my child from picture 1 (show the picture) took the medicines and I did every thing possible to prevent him getting worms again, is that enough to let him be my old healthy boy from picture one? (show the picture)"

Let the people talk about the extra food intake and about being

extra careful, because a weak child is very susceptible for other illnesses. Only add something if it is very important or ask questions to make things more clear. (p.e. Yes, extra food is very important, how many times a day will you feed your child in this condition. Which food is especially important?)

"Is it possible that he will be strong again within a week?"

"No, It will take at least a few weeks". "During the whole period of recovery, you will have to take special care."

"If this was your child and he had diarrhoea, what should you do?" Probably O.R.S. will be mentioned. Let them explain how they make it, how many times a day they give it, how much they give, during how many days etc. Let them talk about which food is good during diarrhoea and which food after recovery. Ask for suggestions about the cause of the diarrhoea. (Have in mind that a child that has diarrhoea because of getting teeth, will not become so skinny. Several times reinfection with virus or bacteria "dirty surroundings, not washing hands etc." can make a child so skinny and also the diarrhoea caused by malnutrition". So, if is mentioned: "the mother is pregnant again and the baby drank her milk", don't deny it, but explain again that it is possible that the mother is pregnant and, after knowing this, she didn't breast feed her baby anymore. She didn't know what food she should give her baby and he didn't get enough food. If a child doesn't get enough food during a longer period, he will get diarrhoea and because of that diarrhoea his malnutrition will be worse.

It is also possible that she will bottle feed her child and doesn't know how much milk powder she has to put in the bottle. She puts less then needed and the child will be malnourished and gets diarrhoea because of that. An other possibility is that the bottle is not very clean.

"Is it possible that the child change from picture 1 in picture 2 within a week because of diarrhoea?" "With a severe diarrhoea it is possible; normally a change like that takes a longer time."

"Is it possible for my child to become strong again like in picture no.1 within a week?" etc. Same story like with the worms.

Malnutrition: "What do you give your child, so that he will not become like the child of picture 1."etc.

"What do you advise to give to a child that looks like picture 1?"

(extra protein intake, fruit and vegetables, give him many times a day small quantities of food.)

Bilharzia (only if mentioned), malaria (only if mentioned): Same as the other diseases. Remind the people of the fact that bilharzia and malaria give anemia. Ask which food makes the blood stronger. (Eggs, beans, green leaves, "karat", meat, especially the liver and the kidneys.)

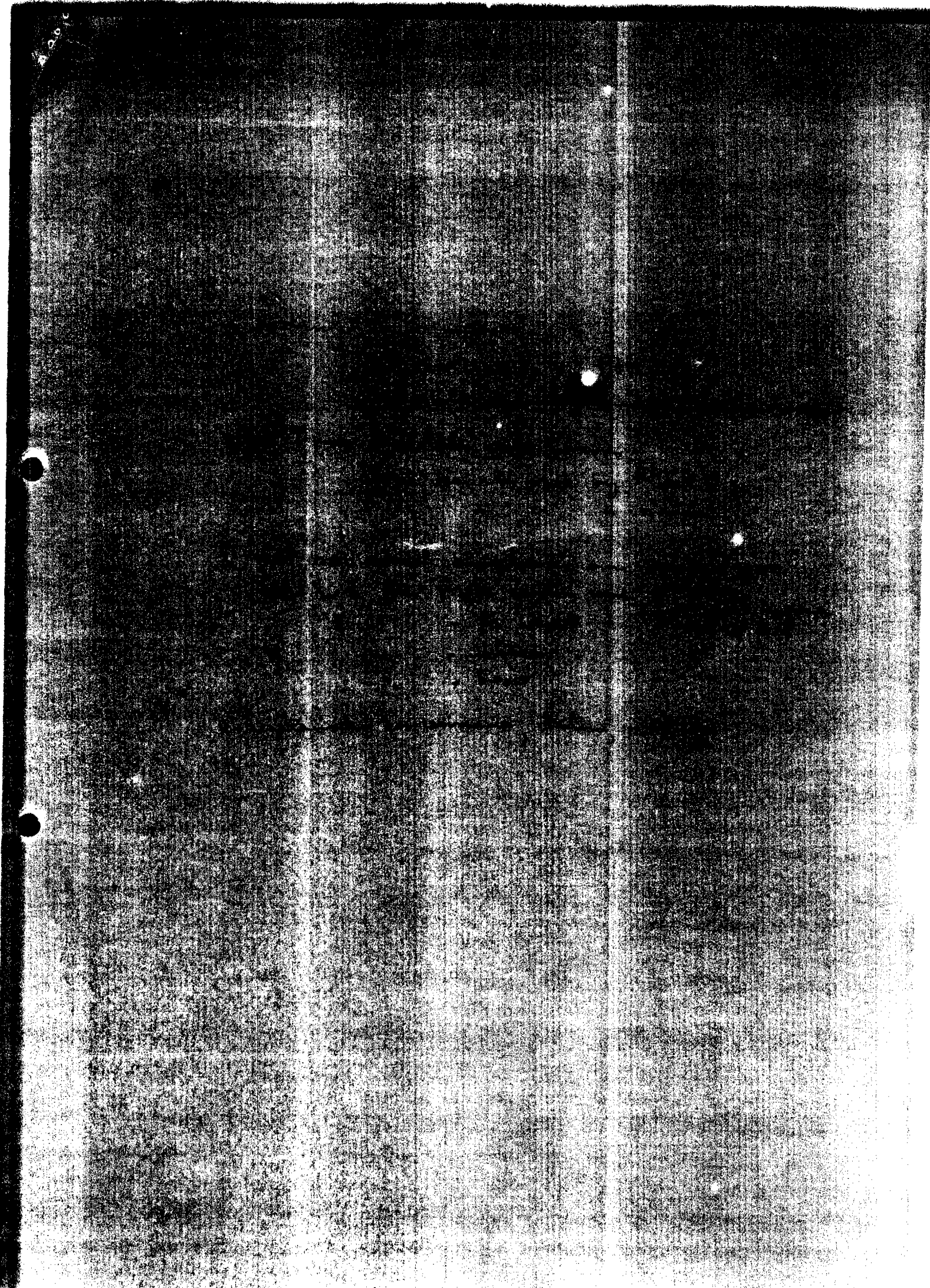
If illnesses are mentioned against which you can vaccinate, like measles, polio, tbc, confirm that those are very serious illnesses, that need special care. We can be very grateful that it is possible to vaccinate our children to prevent that they will get one of those. It is a pity that not all the parents let their children have the vaccination. (It is very necessary that a primary health care worker talks about, and explains a lot about vaccination, but it is out of the scope of this health education on water and sanitation. How you can discuss vaccination with your people will not be in this training).

If the evil eye is mentioned, ask the people what they do to prevent the evil eye and what they do if their child is affected by the evil eye. This is a very sensitive subject, don't mention it by yourself in a group discussion. If the people mention it themselves and you see that they like to talk about it, let them talk but don't interfere. Remember that you are not more an expert in this matter than they are. One thing you have to talk about: also when your child is weak because of the evil eye, you have to take special care, feed him extra, keep him clean, go to the primary health care unit to check if there are maybe also other causes of his weakness etc.

Is the situation of the child of the 2nd. picture, dangerous?
 There is not an acute danger, but the child is very susceptible for other illnesses and that other illnesses can become very serious, because the child doesn't have resistance.
 Try to protect it as much as possible.
 How can you do that?

- Don't let it be with other sick children,
- don't let it be in the smoky kitchen,
- prevent that he will become very cold,
- keep himself and the surroundings clean,
- let him eat as often and as much as you (and he) can.

1206



received from Inca Lewart
SRWSD Project Dhamar, Yemen Arab Republic.

Dhamar august 1989

GENERAL PLAN OF ACTION ON THE COOPERATION OF HQD (DRHP) AND RWSD (SRWSD).

1 The aim of this paper.

The aim of this paper is to inform the Jemen authorities about the planned joint action of HQD (DRHP) and RWSD (SRWSD) and to ask for their support.

2 General ideas about the cooperation.

The general aim of DRHP is: "To contribute to the improvement of the health condition of the rural population in Dhamar governorate". (Plan of operations 1988).

One of the main objectives of DRHP is: "To implement a comprehensive Primary Health Care (PHC) on village level by building PHC Units and the posting, supervising and support of both male and female primary health care workers there". (report of the evaluation mission december 1988).

The aim of SRWSD is: "To improve the health of the rural population of the Dhamar governorate by providing water supply and sanitation infrastructure in the villages, preferable to those villages, where Primary Health Care-Centres or Primary health Care-Units are, or will be, established".

The objective to integrate with the health sector is based on the consideration that: "Rural water supply development is one of the main instruments to enhance the quality of life in rural areas. Rural water supply development in this context stands for an integrated approach to water supply and sanitation, including also community involvement and health and hygiene education". (project document january 1988).

It is just logical that DRHP and SRWSD will work together in a joint action in order to improve the health of the rural population in the Dhamar governorate because:

-the impact on health of primary health care (including health education) is much bigger if water and sanitation facilities are available,

-the impact on health of water and sanitation facilities is much bigger, if those are provided in combination with primary health care, especially with health education.

In the past it was difficult to operate in this way, because, while SRWSD was implementing the works in the villages, DRHP was still training the female primary health care workers. (Male were already working in the different primary health care units.) SRWSD tried to fill that gap, by organizing the health education

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themselves, with the help of a primary health nurse and a mid wife, contracted by SNV (Netherlands Development Organization), who worked 1 day a week with SRWSD.

They tried to involve as much as possible the male primary health care workers and the trainer supervisors.

By now a group of female primary health care workers has been trained and the joint action can be planned.

3 Objective of the cooperation.

The objective of the joint action is:

To improve the health of the rural population of the Dhamar governorate with participation of the villagers concerned, in close cooperation with the LCCD's. by:

- 1 providing safe drinking water,
- 2 providing enough water for all domestic needs, cleaning included, at close distance to the houses, in order to:
 - limit the risk that the water will be contaminated during the transport from the source to the house,
 - encourage the cleaning with adequate use of water,
 - reduce the workload of the women.
- 3 providing some public sanitation facilities,
- 4 providing health education related to water and sanitation during the implementation phase and afterwards,
- 5 supporting the male and female primary health care workers by
 - integrating them in the actions of the water supply project
 - providing them with the materials and the training for health education on water and sanitation
 - encouraging them and the villagers in the implementation of the health education on water and sanitation.
- 6 training the villagers in operation and maintenance of the system,
- 7 monitoring and evaluating the process.

Considerations:

ad 1 In many villages the people are drinking polluted water, because of the fact, that the source doesn't provide safe drinking water (cisterns for rainwater- or source water collection, open wells), or because of the fact, that the water gets polluted during collection, transport or/and storage.

The villagers generally don't treat the water to make it safe for drinking. (boiling, exposing it to sunlight)

ad 2 -If there is not much water available, it is impossible for the women to use enough water for getting an hygienic surrounding.

-If fetching water cost a lot of time (or money), this will not stimulate the women to spend much water on cleaning; she will not have time for cleaning either.

-Carrying heavy loads doesn't benefit the health status of the women.

-If the mother is not at home, she can't give her children the attention they need for food and hygiene.
(There is a relation between the hours a day that the mother is absent and the death rate of the children. (Beatty and van Dijk: Childhood malnutrition in rural Dhamar and mortality survey)).

ad 3 Save disposal of human faeces is not a common practice in the villages and this one of the main causes of worm infections and diarrhoea. To provide a good example of a toilet, with explanation of how it was built and why, may stimulate the people to be more careful and they may follow the example given, by building a good toilet themselves

ad 4 The above mentioned provisions don't have the intended impact on health, if they are not strengthened by health education, as can be seen in the urban situation, where water and toilet facilities are available.
Just providing water and toilets doesn't make the people aware of the relation between health and hygiene and therefore will not change the hygienic customs.

The moment, that the water becomes available in quantity near the house, is a moment of change. The women get more time then and they only are willing to spent part of that extra time on washing and cleaning and looking after the children to let them behave according the health rules, if they are convinced that health is related to hygiene.

If that moment of change is not within your health education period, the extra time will be filled with other women duties and it will be difficult for the women to find the time for the extra work.

It is also necessary to explain to the men where some illnesses are coming from and what you can do to prevent them, so that they can be a good example and a stimulus for their family.

ad 5 Tasks of the primary health care workers are diminishing the health risks and treating of the most common illnesses. Diminishing the health risks, you can't achieve just by talking about vaccination, nutrition, hygiene etc. You need the medicines, the vaccines, you need to know which food is available, you and the people need safe water in adequate quantity. Only with that "hard ware" present, you can start the talking.

But the "talking" needs also some health education material, adapted to the situation and the knowledge of the people.

If the primary health care workers are from the beginning involved in the activities of the water supply project, the people will understand more about their tasks in promoting health.

If their health education on water and sanitation is successful, their health education on other subjects will be accepted more easily.

ad 6 During the implementation of the project and after the installation of the pump a training is given to the

villagers, especially to the care taker of the engines and the pump, in operation and maintenance of the system. This includes also advises about the amount of money to be paid for the amount of water used, in order to pay for the diesel, for the salary of the operator and for the maintenance and repairs. As the villagers participated actively in the construction of the whole system, they know everything about it and they consider it as their own. After the handing over of the project, the villagers are capable and willing to take all the responsibility.

ad 7 In order to prevent failures and to improve the ongoing and future projects, monitoring during the implementation and evaluation afterwards, takes place.

HOD (DRHP) has a system of training/supervising and within this system an ongoing stimulus will be given for healthy water use.

4 Plan of action to come to a standard procedure for cooperation on village level.

The plan of action consists of the following elements:

- 1 Informing the authorities and ask for their support,
- 2 working out a health education programme on water and sanitation (method, contents, material),
- 3 selecting 4 villages for trying out the joint action,
- 4 training the male and female primary health care workers of the 4 selected villages and their trainer supervisors in executing the health education on water and sanitation,
- 5 implementation of the construction works and the health education programme,
- 6 training of the villagers and monitoring of the construction works,
- 7 evaluation of the health education programme,
- 8 follow up.

ad 1 With this paper the authorities will be informed about the joint action. The normal procedure for a water supply project of informing and involving the authorities involved will also be applied.

ad 2 A working group of SRWSD and HOD are working out a health education program on water and sanitation (method and contents) in such a form, that the primary health care

workers can implement it directly in their villages. The working group is supported by a advisory group, consisting of people of DRHP, HOD and SNV.

ad 3 The joint action of HOD (DRHP) and RWSD (SRWSD) will be tried out in 4 villages.

The criteria for the selection of the 4 villages were:

- There is a male as well as a female primary health care worker,
- possibilities for SRWSD to construct, improve or extend a water supply or/and sanitation project, or the presence of an already completed SRWSD project,
- They lay under the coverage of 4 different health centres.

The 4 selected villages are:

-Al Mashahidah, under the coverage of the health centre of Hamam Ali. In January SRWSD finished a water supply project there, with toilets for the school and the health care unit. Some health education was given.

-Bani Fadhl, under the coverage of the health centre of Al Jumhah. In the past an water supply project with public taps started, which never was completed. SRWSD can complete and extent the system.

-Wadi Sulim, under the coverage of the health centre of At Talabi. The villagers themselves made some improvements on a spring. SRWSD can make some improvements and extensions of this system and can build toilets.

-Ahlal, under the coverage of the health centre of Dowran Anis. SRWSD will do some small works, just to encourage the primary health care workers in their health education.

ad 4 The male and female primary health care workers of the 4 selected villages and their trainer supervisors will be trained in implementing the programme for health education in a course, organized by HOD (DRHP) and RWSD (SRWSD). This course will be held in september 1989 and will last 2 weeks.

ad 5 Implementation.(plan of action).

-Preliminary survey: This is a survey in which the SRWSD engineers will study the visibility of a project. They will involve the primary health care workers as much as possible.

During those first contacts of SRWSD with the village authorities and the villagers it will be explained, that the aim of SRWSD is better health. Health education, given by the phcw, supported by HOD.(DRHP.) and RWSD (SRWSD) will be part of the project (and included in the contract), so that the water will have an optimal effect on health.

-Survey: Part of the socio-economical and technical survey of the SRWSD will consist of filling a kind of checklist on

water use and health. The engineers will do this together with the primary health care workers. (see annex 3 for the questionnaire).

The primary health care-section of DRHP and the coordinator of the women-, health- and small scale research- section (whr-section) of SRWSD will be presented to the village during this stage and they will help, if necessary, with the list. This list will be used to make the health education schedule.

This schedule will be made by all parties concerned and will consist of: which subjects will be dealt with, when, where, to whom, by whom and who will be present from outside the village on which date.

(DRHP and SRWSD agreed on the following general points:

- Health sessions will be held every week during the implementation stage for the men and another for the women, organized by the primary health care workers.

- The trainer/supervisor of the primary health care unit concerned will be present every other session. (He will do his normal visits to the health care-unit the other week.)

Because there are, until now, no female trainer supervisors, the coordinator of the whr-section of SRWSD will take this role; she will also be present every other session.

- The SRWSD technician will be present if possible,

- The male and female coordinator of the phc-section of DRHP and the coordinator of the hwr.-section of SRWSD will be present at the first health session and after that, at least once every 4 sessions,

- In the health education are included visits to the school, walks through the village and home visits.

- Contract: The session in which the contract between the village and (S)RWSD will be explained, the health education schedule will also be explained by a representative of the makers and an agreement on it will be sought with the villagers.

The plan and the responsibilities for implementing the health education, will be part of the contract between the village and SRWSD.

ad 6 The normal training for operation and maintenance will be applied, (See 3 ad 6) and the normal monitoring visits will be done by the SRWSD people.

ad 7 During the implementation phase an ongoing evaluation will be done by the phc. coordinators of DRHP and the whr. coordinator of SRWSD.

After the implementation an outsider will question the villagers about what they still know of the health education and he will do a small survey to see what is brought in practice of the knowledge.

This evaluation will be used for:

- Examining the benefits (and/or disadvantages) of the cooperation,
- reviewing the programme and adapt it so that it can be added to the normal phcw-training,
- reviewing the plan of action, so that it can be used for other water projects in the future.

ad B After the implementation and handing over of the project to the village and after the execution of the health education programme, the whr-section of SRWSD and the phc-section of DRHP will pay some visits to the village:

- to encourage the women in continuing with the extra work, which has to be done to keep the surroundings healthy,
- to discuss with the primary health care workers the results of their activities, related to water and sanitation,
- to see if the water system is operating according the needs of the women,
- to talk with the school teachers, about the problems and results he has with his classes about health and hygiene; to look after the use and the cleanliness of the school toilets will also be part of the conversation.

The trainer supervisor will pay attention to the water and sanitation situation during his normal visits 2 times a month.

As the LCCD's are involved from the beginning in the water supply project, they will be also interested in the results. To show this interest will motivate the people.

As the LCCD's have also a certain responsibility for environmental health and even have some funds available for that purpose, they could stimulate the people in toilet use and maintenance and in building new ones.

Garbage disposal is one of the items of the health education on water and sanitation and the LCCD's can encourage the people to get rid of their garbage in a save way.

Plans for the future: After the evaluation of the try out, the programme for health education will be adapted and will be added to the training of male and female primary health care workers in order to enforce their impact on health education on water and sanitation. (This training will be the responsibility of HOD (DRHP); as SRWSD doesn't have a department for health education they can't organize special training courses, but they will be happy to share their experiences in this field.)

The programme for health education will also be used for refresher courses and other meetings of primary health care

workers and trainer supervisors and mother and child care workers.

When RWSD (SRWSD) will do projects in villages in DRHP area with a primary health care centre or unit, or in a village that lays under the coverage of them the male and female primary health care workers and their trainer supervisors can and will be involved in the water supply project.

Hoping that the joint action of HOD (DRHP) and RWSD (SRWSD) will serve to improve the health of the rural population of the Dhamar governorate, Dhamar, 15th of august 1989,

Jahja Sanabani,
director of RWSD Dhamar

Ali Al Dailami,
deputy director of HOD

Theo Haagsma,
teamleader of SRWSD

Ronald van Dijk,
teamleader of DRHP

ANNEX 1 Contents of the training in health education on water and sanitation for the male and female primary health care workers of the 4 selected villages and their trainer supervisors.

Consideration:

The primary health care workers have some theoretical knowledge about communication, but they don't have enough experience nor the health education materials to treat the sensitive subject hygiene with care.

The subject "hygiene" is therefore so sensitive, because it is linked with dirty and clean and every body wants to be clean. Primary health care however is not interested in cleanness, but in health. As health is seen by the people as not being ill, in the health education on water and sanitation the most common illnesses are discussed, which spreading are related to hygiene. Because of these two reasons the biggest part of the training will consist of "how to discuss those illnesses in the villages".

Contents of the training:

- The tasks of the primary health care worker.
 - Explanation about the cooperation of HOD (DRHP) and RWSD (SRWSD).
 - Training for the health education in the village:
 - Drinking water;
 - *What happens when you drink dirty water?
 - *How can you make water safe for drinking?
 - *How germs can come in?
 - *How can you prevent this?
 - Diarrhoea.
 - Worms.
 - Skin infection.
 - Eye infection.
 - Malaria.
 - Bilharzia. (Bilharzia and malaria will only be discussed in the village, if they are present.)
- All those illnesses will be discussed along the following questions:
- *What do you know about the illness?
 - *How do you feel when you have it?
 - *Is it dangerous?
 - *What do you do when you have it?
 - *Where does it come from, how does it spread?
 - *How can you prevent it?
 - *Which customs present favour it?
- Flies.
 - Garbage.
 - Waste water.

These 3 items will be discussed after the people know about their relation with illnesses.

- Difference between a strong and a weak child.
This subject can be used as a kind of evaluation.

- The questionnaire on water, sanitation and health.
- Home visits to the families most at risk.
- School visits.

Starting point and aim of the health education in the village:

People have their ideas and conceptions and customs about health and illnesses. Letting them talk about those, will create awareness of this. Only if new knowledge is introduced within the frame of experience and of the knowledge already present, the new knowledge will be something that has to do with themselves and their lives. A broader awareness will arise out of this. Hopefully from this new awareness in combination with the changed water situation people will change some habits for healthier ones.

ANNEX 2 Time planning for the implementation.

Preparation will cost 4 weeks, the implementation and evaluation 2 1/2 month.

The work in Al Mashahidah and Bani Fadl has been planned for october till the beginning of the year 1990, the work for Wadi Sulim and Ahlal has been planned for january till may 1990.

The training of the male and female primary health care workers and their trainer supervisors will take place in september 1989 and will last two weeks.

ANNEX 3

Questionnaire on water, sanitation and health.

Purpose: Aid for the planning and design of a water supply and sanitation project.

Aid for the planning of a health education programme on water and sanitation.

Aid for evaluation after the implementation.

WATER

Describe all the different sources where the people are getting water and mark them on the map, if possible. *

Use the following questions for your description.

- 1 - Is it a cistern, a bore hole, a stream, a hand dug well, a spring?
- 2 - Is it a private source or a public one, free for everybody?
- 3 - Is the water used for special purpose? (drinking, washing, animals, bathing, gardens, agriculture, other purposes).
- 4 - Does the source give enough water, or is there a limit to the amount of water the family is allowed to take?
- 5 - Does the source provide water during the whole year in the same quantity?
- 6 - Can dust or dirt come into the water at the collection point?
- 7 - Are provisions made to protect the water from pollution?
- 8 - Are the surroundings of the source clean, free of animal dung and human excreta?
- 9 - Are donkeys used for water transport?
- 10 - How much time does it take to walk from the source to the centre of the village?
- 11 - If water comes in by car, how much does it cost to fill a tank of 1000 litre?

HYGIENE

Describe all the different kinds of toilets used in the village, also the toilets for the mosques and the school.

Use the following questions for your description.*

- 12 - Where is the stool from the toilet collected? (Near the house, far from the house, in a kind of room, in a soak away pit?)
- 13 - Where is the waste water from the bathroom (toilet) going to?
- 14 - Are ashes added to the stool?
- 15 - Are the toilets of the mosques and the school clean?
- 16 - Is the stool used in agriculture?
- 17 - Is there stool lying around in the village?
- 18 - Are there special places (houses) where stool is abundant? (mark them on the map).*
- 19 - Are there special places where the people throw their garbage? (If yes, mark them on the map).*
- 20 - Do people burn garbage?
- 21 - Are there special places (houses) where garbage is abundant? (mark them on the map).*

22 - What do the people do with animal dung? (agriculture, dung cakes, building, other purposes).

23 - Mark on the map the places with stagnant water.*

24 - Are the children clean? (hands, face, nails, hair, clothes) (Make a difference between the children at school and the children at home.)*

HEALTH

25 - Do you have the impression that everybody who is ill comes to you first?

26 - Which illnesses are very common?

27 - Is there bilharzia in the village?

28 - Is there malaria in the village?

29 - How many patients with diarrhoea did you treat the last three months?

30 - How many patients with worms did you treat the last three months?

31 - How many patients with skin infections did you treat the last three months?

32 - How many patients with eye infections did you treat the last three months?

33 - Do all the people with those illnesses come to you?

34 - Is bottle feeding a common practice?

GENERAL

35 - How many shops are there in the village?

36 - Do they sell soap, baby milk, Nido (or other milk powder), vegetables?

37 - Are there home gardens with vegetables in the village?

38 - How much time do you need to walk to the suq?

39 - How much time is needed to drive to the suq?

40 - Does the village have electricity?

41 - How many houses do have television?

42 - How many cars are there in the village?

43 - How many trucks, bulldozers, tractors are there in the village?

44 - Are there bore holes for irrigation?

45 - Make an estimation of the percentage of the agricultural area that is under irrigation.

46 - Make an estimation of the percentage of the agricultural area that is used for goat.

47 - How many people are having an income outside agriculture?

48 - Does the village have contacts with other projects?

49 - How many times in the last 3 months did the village have contact with the LCCD?

50 - Of how many hamlets does the village consist?

51 - Which works are the different hamlets doing together?

52 - Are the people of the different hamlets all coming to each others weddings?

53 - Are the people of the different hamlets willing to come together for health sessions?

Maybe we can make pictures of the things marked with *

QUESTIONS TO ASK TO EVERY HOUSEHOLD (give each house a number, so that you can use the answers for the evaluation)

- 54 - How many people are living with you in this house?
- 55 - How many men, how many women, how many children (age of the youngest and the oldest)?
- 56 - How many cows do you have?
- 57 - How many sheep and/or goats?
- 58 - How many donkeys?
- 59 - How many chicken?
- 60 - Do you have other animals? (camel, watchdog, cats etc.)

- 61 - How many times a day do you fetch water?
- 62 - How much water do you take every time you go?
- 63 - Who is (are) responsible for fetching the water?
- 64 - How much time does it cost to fetch water one time?
- 65 - Are the children helping with it?
- 66 - Do you use a donkey to carry the water?
- 67 - Do you sometimes buy water from the water car?

- 68 - Do you use a special water source for the drinking water?
- 68 - Do you store drinking water separate from the water for other purposes? How and where?
- 69 - Do you think that your drinking water is safe, healthy drinking water?
- 70 - Do you drink the water directly, or do you give it a special treatment before you or your baby drinks it?

- 71 - When the water will be easier to get, do you think that you will use more water? For which purposes will you use that extra water?

- 72 - When the water will be easier to get, the women who fetch the water will have more time to spend on other things. On what does she intend to spend it?

- 73 - Where do you wash your clothes?
- 74 - Is it possible to use the waste water from the laundry for agriculture or home gardening?

- 75 - How many times the last 3 months did you or members of your family visit the primary health care unit?
- 76 - Do you know which illnesses are spread by stool?
- 78 - Do you know how (from where) a child can get diarrhoea?
- 79 - Have you ever given your child ORS?
- 80 - How do you make it? (write down good or not good)
- 81 - How do you give it? , ,
- 82 - How can a child get worms? , ,
- 83 - How many children in this house under 1 year get bottle feeding?
- 84 - How much money do you spend every week on vegetables?
- 85 - Would you use more vegetables if they were easier (cheaper) to get, or if you could produce them yourself?

THINGS TO OBSERVE FOR THE SAME HOUSEHOLDS

- 86 - Describe the bathroom (toilet) according to the same lines as the hamam of the mosque.
- 87 - Do you see stool in the yard?
- 88 - Is there a lot of garbage in the yard?
- 89 - Is there a lot of animal dung in the yard?
- 90 - Are there dung cakes made near the house?
- 91 - Do you notice waste water problems?
- 92 - Is there a home garden?
- 93 - Does the house have electricity?
- 94 - Is there a television in the house?

11-02-90 Erica Zwart

Ideas about the field visits:
(see for aims: General Plan of Action for the Cooperation)

The trainer supervisors (male and female) are trained in the messages on water and health.

The primary health care workers (male and female) will give weekly health sessions about this subject during the work of the water supply project and some time afterwards. They need support for the planning and implementation of the sessions and for animating the villagers.

The trainer supervisors will support them and animate the villagers, being present every other health session. On the other hand, this will help them filling in a part of their task, which is broader than supervise the curative work and administration and statistics done by the primary health care workers.

The trainer supervisors also need stimulus and support.

The public health department of DRHP and HOD will give them that, being present every 4 weeks.

In this way we hope to achieve, that all levels will know exactly what is happening on field level out of their own experience and will feel responsible for that.

This still has to be discussed

August 1990
Feller

There is asked also for different roles for the people assisting during health sessions.

Guide to fill in the different tasks during the field visits:

*When the water project (technical side and women-, health and small scale research side) is doing the first visit to a village to see the possibilities for improving the water situation, the primary health care workers are involved in the discussions with the villagers. The trainer supervisors will be present also, as well as the public health people from Dhamar. Together they will discuss the questionnaire for the general base line of the village and do the work necessary for the evaluation. (see report Ann Hoskins.)

*After the water project starts its activities in the village, weekly health sessions will be organised by the primary health care workers, one for the men and one for the women, covering the same subject, according the guidelines of the course.

first week: The big team will be there. They will make a rough programme for all the sessions.

The first and second session will be prepared by the trainer supervisors and the primary health care workers.

The session will be held by the phcw's with assistance of the trainer supervisor.

second week: The phcw's will repeat the first session, giving more examples and more details.

third week: The tr.sup's and the phcw's discuss the last sessions.

They prepare the third and fourth session.

The session will be held. First thing of the session will be that the tr. sup.'s find out what the people know from the former sessions and, if possible, if there is a change in awareness and behaviour.

The phcw's will held the session, supported by the tr.sup.'s.

fourth week: The phcw's will repeat the third session, giving more examples and more details.

fifth week: The public health team from Dhamar will be present to participate in all activities, especially as support and stimulus for the tr.sup.'s and for showing interest in the work of the phcw.s, in the problems and the results. This may enlarge the esteem the villagers have for their workers and motivate them to work themselves on their health situation.

Before the session the whole team is making a walk through the village, looking for changes and still existing health hazards and talking to the villagers stimulating them to assist in the health sessions.

After that, they discuss the things that happened. Then the tr.sup.'s and the phcw.s prepare the fifth and sixth session.

The health session will be held.

Discussion about the preparation and session.

sixth week and after: according the same lines.

For the evaluation the same work will be done as during the first visit (see report Ann Hoskins).

Baseline Study for

EVALUATION OF HEALTH EDUCATION IN THE WATER PROJECT

On the first visit

1. General description of the area using the points on the questionnaire. *t.s + p.hcw*
2. Photographs of the area - water source, sanitation, water, rubbish and general hygiene.

Specific tasks of members of the group

- Rajiv + Phcw + teacher*
1. Go to the school, choose one class and give a talk on hygiene. Then count the number of children with long dirty nails, work out percentage children with long dirty nails, in the class the children who need should cut their nails.
 2. Visit the mosque, check and note; Cleanliness of mosque, water used for washing before praying the cleanliness of the mosque toilets (if present).
 3. Visit 10 houses, chosen randomly (note which house) observe and note down;
 - a) How the drinking water is stored and how it is used i.e. water poured into clean utensil, or cup put into water etc.
 - b) How waste water is disposed of.
 - c) How the household rubbish is disposed of. The level of rubbish in the house.
 4. If there is a toilet in the house in describe its type and how it is kept.

In each house ask the questions below

1. a). Do you know what ORS is?
b). Have you given ORS to your child when he/ she had diarrhoea?
2. Can you get ill from drinking dirty water?
3. How does a child get worms?
4. What do you know about bilharzia/ malaria (ask about both or either or neither depending on whether they are prevalent in the area?).
5. How do you wash your hands before eating? (water, soap and water, soap and warm water etc)
6. do you have a kitchen garden?

The above exercise to be repeated after the health education program has finished.

Continuous evaluation of each topic:-

1. Each topic is discussed with the group before the session to ensure everyone has the same ideas.
2. After the session it is stressed to the PHCW's T/S that they must continue to give HE on this topic for the next 2 weeks.
3. At the next session the first 15 minutes is devoted to seeing what the people remember and understand about the last topic.
4. If there are misunderstandings or people do not remember the answers - the session may need to be repeated again, and the technique used for the session may need to be reassessed.

Evaluation of the implementation of the health education on water and sanitation.

We are evaluating to see

- if we did what we planned
- if we realised our goals, or part of it
- if our action had good and/or bad side effects, not aimed for
- what we can do to improve our actions to come to a better way to realise our goals
- if our aims are realistic and convenient

See other papers for aims and goals for the cooperative action of the HOD/DRHP and (S)RWS.

To use a checklist for this first evaluation isn't convenient; we prefer to do the evaluation by open discussions with all people concerned to get our information.

Information we have to gather before the discussions:

- What did we do exactly? (how many visits, which subjects, who was present etc.)
- How is the water and sanitation situation at this moment?
- Can the garbage and waste water situation be improved?
- Check the books of the primary health care workers to see if more people consulted them and if more people used ORS.

Items we will discuss with the different people.

Villagers: (in different part of the village we will talk with some people)

- Did they ever assisted in a health session? (If no, Why not?)
- How many times?
- Did they like it?
- Did they find it useful? Did they hear new things? Could they practice these? etc.
- Have they any idea about how to make the sessions more pleasant, useful etc.
- Do they think that there are better ways to pass the messages and to stimulate them to improve their environment?
- Do they think it is the task of the primary health care workers to talk about the ways they can improve their health? Are there other people in or outside the village who ought to do this or to help the primary health care workers with this?
- Are there other subjects they would like the primary health care workers to talk about?

Primary health care workers:

- What do they think of the whole programme?
- Do they think that the villagers appreciated it?
- Did they do the health sessions in the weeks that the trainer supervisors and Erica or Hieke weren't present. How did it go? Were those sessions more or less difficult than the sessions with the trainer supervisor?
- Will they do health sessions about other subjects than water and

sanitation in the future e.g. about shabisa or vaccinations? Do they think it is an good idea to invite the trainer supervisors or other people for a session like that?

-Are they better prepared now for organizing, preparing and speaking during a health session than before?

-Do they think that it is more easy to speak during a home visit about e.g. the waste water after a health session about the same subject?

-Do they prefer to pass a message during a home visit or in the clinic to a patient or in a health session?

-Are they using more ORS after the explication of it during the sessions?

-Do they think the programme had any effect? e.g. do they feel that the village is cleaner?

-Do they have any suggestions to make the programme more effective?

-Do they think that the programme improved their relation with HOD/DRHP and with the trainer supervisors and the health centre and do they think this is useful for their task?

Trainer supervisors:

-What do they think about the whole programme?

-Do they think it is useful for their work to know the village and the problems in the village better?

-Do they feel that, working with the primary health care workers and being together responsible for the health education on water and sanitation is making their task in training and supervising them easier and more pleasant? Did it gave more understanding for the work of the primary health care workers?

-Will they refer patients to the primary health care workers now they know them better?

-Is their relation with HOD/DRHP strengthened?

-Do they think that this experience is useful for their contacts with other villages?

-Did they feel themselves good prepared for the health sessions?

-Were they enough involved in planning and preparation?

-Have they any suggestions for improvement?

Implementation group:

-What do they think about the whole programme? Useful? worth to continue?

-What do they think about the planning of the whole programme?

-What do they think about the planning and preparation of each field visit?

-How was the coordination among the group?

-Is their more mutual understanding between SRWSD and HOD/DRHP?

-Has the feeling of responsibility for what is happening in a village grown and the understanding for the difficulties for the primary health care workers and the trainer supervisors?

-Suggestions for improvement of the programme?

DEMONSTRATIONS

Hand washing demonstration

Demonstration with clean and dirty water

Demonstration of how to make ORS and water sugar salt solution

Mildewed bread as example of multiplication of microbes

Garbage disposal demonstration

Pictures for explanation of the road from stool to mouth

Pictures for explanation of the bilharzia cycle

Picture of the multiplication of flies.

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HAND WASHING DEMONSTRATION

Necessities -large bowl
 -flagon
 -water
 -soap
 -2 empty transparent bottles

Demonstration:

-Pour water in the bowl.

-Ask 4 people to wash their hands the way they are accustomed to before lunch. If they ask soap, ask them to do it like other people do it when they are in a hurry.

-Pour the dirty water in one of the bottles.

-Show the dirty water to the attendants and ask what can happen when you drink this water. (which illness?)

-Ask if they think that the hands are clean now.

-Let the same 4 people wash their hands again, now you pour the water over their hands and let them use soap. (They can use the dirty water of the previous persons to wash, but you use clean water to rinse the last soap away.)

-Pour the used water in the other bottle.

-Show the attendants that the water is dirty. The hands weren't really clean before and this dirt will get into your mouth when you are eating.

-Demonstrate also that long nails still are dirty after washing the hands with soap.

-Show them also that you used less water than the first time.

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demonstration of clean and dirty water

Necessities: -good quality drinking water (boiled or shamlan)
 -3 transparent bottles
 -funnel (e.g. shamlan bottle without bottom)
 -piece of cloth or other filter material
 -some dirt, dust with some cow dung
 -(optional, magnifying glass, picture of a microscope)

Demonstration: See health education messages for primary health care workers: Water and health.

Demonstration of how to make ORS and water/sugar/salt solution

- Necessities:
- clean empty can of beans
 - (big shamlan bottle)
 - packet of ORS (also some to hand out)
 - good drinking water
 - water to clean and bowl for cleaning
 - container
 - spoon to stir
 - drinking glass
 - table spoon for measurement of the sugar
 - tea spoon for measurement of the salt
 - sugar
 - salt

Demonstration

- Ask the people if they know ORS
 - Ask them how much water is needed. If they answer "shamlan" bottle, stress that it a big bottle, filled up to 3 lines from the top. Demonstrate this.
 - Ask if big bottles are available in the village. (mostly they are not available and people are using small bottles instead, which makes the concentration too strong. Tell the people that this is dangerous; it will give more diarrhoea)
 - Ask if cans of beans are available.
 - Show that 3 cans of beans gives the same amount as the big shamlan bottle filled up to 3 lines from the top.
(If people don't come up with shamlan bottles, say only that the amount of water needed is: 3 cans of beans. People get very easily confused, when they hear different methods!)
 - Clean the can, spoon and container
 - Measure 3 cans of good drinking water in the clean container. (good drinking water is the water from the project, or shamlan or water that was boiling for 10 minutes).
 - Count together with the people and ask again: How much water?
 - Show the packet with the ORS-salts (pass it around) and empty it in the container and stir until it has been dissolved.
 - Clean the drinking glass, fill it with the solution and let the people taste it. Let them admit that it is taste is nor good, nor bad. If you are thirsty, you will drink it without complaint.
 - Explain the use.
 - Ask again how much water is needed.
-
- Preferably the next meeting you ask what you can do, if your child gets diarrhoea in the middle of the night and you don't have a packet of ORS-salt in your house.
 - Let one of the women do the demonstration until the showing of the packet of ORS-salt. Guide the demonstration with explanations and questions.
 - Tell that the packet contains powder with sugar and salt, more or less the same as the sugar and salt we use.
 - Add 1/2 teaspoon of salt to the water and let the people taste it. Has it the taste of tears? Stress that if there is not enough salt, the solution doesn't help so much to open the road from the belly to the body, but if there is too much salt, the road will

be closed completely, so this will give even more diarrhoea. Too much salt is dangerous! Let the people repeat how much salt you have to add, that they have to taste after adding the salt and ask what the taste have to be alike.

-Add 2 table spoons of sugar, stir and let the people taste. A little bit more sugar is not dangerous, a little bit less neither.

-Ask the people to explain the use.

-Ask again how much water, salt and sugar.

-Ask if everybody has a teaspoon. A lot of people don't have. Put 1/2 teaspoon of salt on the top of the table spoon and show how much this is.

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Mildewed bread as example of multiplication of microbes.

Necessities: -piece of fresh bread
-plastic bag
-feeding bottle
-little bit of fresh milk

Demonstration:

-Show a piece of fresh bread and eat a bit.

-Wrap it up in a plastic bag.

-Put a little bit of milk in a feeding bottle. If you do this in the beginning of the session, it is possible that it will already smell a little at the end, especially when you used a dirty bottle with some rests of milk. Let the people smell it.

-Let it stay this way for a week in the village, but make sure that you have yourself also a piece in case it get lost.

-Show the bread again, after a week. It will be full of mildew.

-Ask if you can eat it this way.

-Explain that this is a kind of microbe, you can see. In the beginning there was no mildew, then there was just a little and after a few days there was a terrible lot. The microbes multiplied.

There are also microbes you can smell. Fresh meat you can smell after a day, milk will smell after a few hours. Let the people smell the bottle. (The microbes ate the meat and the milk and what you smell is more or less the stool of the microbes. This make you sick also. It doesn't help to boil smelling milk to kill the microbes. They themselves will be killed by boiling but their stool still can give you diarrhoea.

Give this explanation only if people ask you why spoiled milk still gives you diarrhoea after cooking).

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GARBAGE DISPOSAL DEMONSTRATION

Necessities: -plastic bags, plastic bottles, pieces of paper, cigarette box, empty packet of sweets
-empty can, nail, broken glass
-organic matter like rests of qat, peels of onions, rests of bread

See health education messages for primary health care workers.

DEMONSTRATION OF SEQUENCES OF PICTURES

Necessities: -All pictures in good sequence.
-long cord e.g. clothes-line
-clothes-pegs

Demonstration:

- Put the cord at the wall.
 - Go and stand in front of the cord.
 - Show the first picture and explain first what is on it. (You may ask the people first what they see, but sometimes the answers will confuse the others, so it may be better that you tell it. (E.g. Here you see a house in the village. The door is open and a chicken is walking through the door.) Then you explain the meaning of the picture. If that is clear to everyone, you put the picture on the line. Do the same to the next picture. N.B. Don't put the picture first, but have it in your hand, explaining the message of only that picture. It takes far more time than you think for the untrained people to get the whole idea of the picture.
 - When you have talk about the whole sequence, picture by picture, repeat the whole story, with all the pictures lined up.
 - Ask: Where are the most dangerous things?
 - Ask: what can I do to prevent this?
 - Is this really possible? Is it realistic? Are there other possibilities to prevent this?
 - Ask: Are there other ways that contamination occurs? (E.g. with the pictures of bilharzia the boy is reinfected, because he is swimming in the cistern. An other way of infection is that a girl is fetching water from the cistern, standing in the water.) Try to keep things as concrete and practical as possible. Try to find a real object to demonstrate with the examples the people are giving. (E.g. When they are mentioning that you have to wash the raw eaten vegetables carefully to prevent worms, take some onion leaves and hang them on the cord. In this way the people will remember.)
- Help the people with coming up with ideas.
- When the pictures show dangerous practices, you can turn the paper; you don't want to see this anymore. (Like the picture of the man defecating in the yard.)
 - Next session you can ask somebody to demonstrate the pictures, helping by giving the pictures one by one in the good sequence.

BANI MUWALLAD

DR WSD/ YAK
Received March 1989

R

12-6-1938: Today is my first visit to Bani Muwallad for health education in combination with the water project, that is under construction in this village. I went with Hussein the assistant supervisor of the project and Hijaat a yemini midwife working in the Dhamar hospital. A month ago the village was visited by Vera who was going to do the health education, but could not continue her visits due to her pregnancy. Vera spoke mainly with the t.b.a. Fanijah on her visit there.

We arrived in the village at 10 o'clock and went to the P.H.C.U. which is situated at 10 to 15 minutes walking distance from Bani Muwallad. In the unit Hijaat and I spoke to the two t.b.a.'s who are working in the unit, Fanijah Mohammed Abdurazam and Selma Saied Sjisar. We also spoke with the P.H.C.W. Jahja.

The conversation mainly concerned the work in the unit. Few pregnant women and children visit the unit. There are no prenatal cards present. Deliveries take place at home and if people need to see a doctor they will have to travel 2½ hours by car. The two t.b.a.'s do not get paid. The unit looked clean except for the hamaam. We obtained some general information about the water situation in the village at present. According to the P.H.C. worker Jahjah, Bilharzia is very common in the village. We explained that we will visit the village once a week to speak to the women about water and health. At 11.30 hours we went to see the water project under construction with Hussein, Hijaat, Fanijah and Jahjah. On our way we passed one of the present water collection points which has a pool of dirty water nearby.

After seeing the water project we were invited by Fanijah for lunch. After the lunch we explained another time that we will visit the village once a week and why. We made an appointment for the next Sunday. Fanijah will invite the women of the village to come to a house for the meeting.

On the way back we visited the school to see the toilets under construction by the project.

At 6 o'clock we arrived back in Dhamar.

19-6-1988: This is our second visit to Bani Muwallad. Today the I.W.P. team leader Peter came as well to supervise the construction of the water project and the toilets. At 10.15 hours we arrived at the P.H.C.U. where several women were collected. Most women drove with us to the village, where more women were waiting. We all entered a house which had a big sitting-room. There were 25-30 women present and a few children. We waited +10 minutes to give other women the opportunity to come to the house.

We started our talk by explaining what germs are and that they can cause disease. How they can cause disease, and how to prevent this. We talked about personal hygiene, washing cutlery and vegetables and further about storing water. In general the women knew most of this information, but listened very interested. Later we heard that most women were trained t.b.e.'s. After an hour the women were still listening very concentrated so we talked briefly about bilharzia. This seemed more difficult which was noticeable, as their attention was less. We ended our talk with asking if anybody had any questions? One of the questions was about a one year old child who was breast feeding and had blisters in her mouth. We advised on breast hygiene and giving fresh fruit and vegetables (vitamine C deficiency?) One question was about the treatment of bilharzia. The child got ill from the medication. We asked her to show us the medication next time and used the opportunity to explain that it is no use to treat bilharzia if the source of the disease is not taken away.

The last 30 minutes Jahjah the P.H.C.W. was present as well. He tended to interfere Hijaat regularly.

At 12 o'clock Hijaat Jahjah, Fanijah and a few women went to see the two present collection points of water. They both had a pool with very dirty water next to them. At one collection point a boy stood in the water under the tap to have a wash. A good example of how to get bilharzia. He did not use soap to wash, never dried himself and put his dirty clothes on again. Later on two cows and some sheep came to drink. They got the water out of a container, but left their stool and urine behind.

We had lunch at Fanijah's house again, after which we chewed qat. Fanijah can do the primary health care training in Dawran Anis, but was not sure if she wanted to do it. I hope I have given her some stimulation to go. If she has gone to Dawran next week Jahjah will organise the meeting with the

26-6-83: Third visit to Bani Muwalled, Peter, Tineke Roholl, Iftikaar, Sylvi

Hijaat is not allowed to come with us to Bani Muwalled any more, because the director of the hospital Saleh Auwed and the director of the health office Chaiwani have got a quarrel. Hijaat arranged for her sister Iftikaar to come with us. Iftikaar is 13 years old and has got holidays from school. Tineke Roholl, SNV The Hague, joined us to get an impression about the work of the I.W.P.

At 7.45 we left Dhamar. Near to Bani Muwalled some women were waiting for us, to drive with us to the village. We stopped at the p.h.c.u. where more women were waiting. Some wanted to stay in the unit, whilst others wanted to go up to the village. As Fanijah was not in the unit and in consideration with Abdulatief the village leader, I decided to go up to the village. There was not really anything arranged and in a hurry a house was chosen.

Due to these unclear arrangements and the fact that by this time it was eleven o'clock, not that many women were present. I asked somebody to call Fanijah, who arrived 5 minutes later and called more women to come.

There were 10 to 15 women present and the same number of children.

We started our talk by asking what was discussed last week and explaining again about germs, what they are and how they can cause disease. After that we introduced the term bilharzia. None of the women present knew what this was. We explained about bilharzia and after the first explanation repeated the whole cycle with the use of a big colour plate about bilharzia. By using the poster the women appeared to understand it better. On asking they could tell about the disease, which indicates that they understood what we had been talking about. The process of repeating the discussed points is mainly used when new women join the group. First of all Fanijah will repeat it again whereafter somebody else, woman or child will repeat it.

We talked about the prevention of bilharzia and mainly about the advantage of the absence of pools of water, not only against bilharzia. We explained as well that these pools are a source where germs thrive.

By this time a boy called Hassan came in. He was listening as well and started asking questions about cleaning the watertanks, cleaning the houses and what to use for this. Some general advice has been given about this.

When Hassan left we asked the women if they had any questions. One of the women, Thelma, started about the complaints she has due to the poor ventilation of the kitchen. She has got respiratory problems and irritation of her eyes due to the smoke, that develops when the women use the traditional ovens.

At 12.30 the women left and we went to see the water project with Peter Abdulatief and a few other men. not women?

Afterwards we went to have lunch with Fanijah, who could not attend the F.P.H.C.W. training in Dawran, as the training was full. We left in time and made a new appointment for the next week tuesday.

On the way back we visited Thelma's kitchen to see the smoke problem. At 18.00 o'clock we arrived back in Dhamar.

6-7-1983: Fourth visit to Bani Muwalled, Hussein Iftikaar, Sylvia.

Due to a broken down car our departure was delayed, and we arrived in Bani Muwalled at 10.30 . We first went to the p.h.c.u. Here was only one woman with her child.

After ± 10 minutes Fanijah and a few more women arrived. We went to a nearby house, to wait for more women to collect. I used the fact that only a few women were present to ask about their habits in defecating and urinating. Have they got hamaams? If not where do they do it? Have they seen the toilets near the p.h.c.u. and will they use them? At the moment there are only a few hamaams in the village. Most women go outside the village to defecate and urinate though they wash themselves near the house. When they defecate they cover their faeces with dust. The women present at that moment had all seen the toilets near the p.h.c.u. and said that they will use them. When I suggested to go and see them next week so I could show them how to use the toilets, few women reacted as though this was not necessary as everybody knew this. Nevertheless we arranged to meet in the p.h.c.u. the following week to go and see the toilets.

During the conversation some more women entered which made it very noisy at times. Besides the women there were few children and the p.h.c. worker Jahja present. When about 10 women had collected we started to repeat everything about bilharzia. Some of it was done by Fanijah who remembered a lot from last week. One boy, about 8 years old, said after this talk about bilharzia that he had blood in his urine like most of the boys in the village. Thereafter Fanijah said that she has had bilharzia as well. We stressed again the danger of defecating and urinating in or near water and the importance of using hamaams if they are present, this especially for children. We told the women that it is better to bury faeces and to put a stone on top so nobody will walk into it.

We asked what they thought of a hamaam in the village for the women and if they would use it if there would be one. They would certainly use it, but when we talked about the fact that there needed to be one person responsible for the toilet nobody wanted to do it. We explained that if the toilet was not kept clean it would lead to illness instead of improving health. After a little while Fanijah agreed to take the responsibility and will keep the toilet clean. The women would discuss the point about the hamaam with the other women in the village.

After this a woman asked if I could look at her daughter, who was feeling tired all the time. It turned out that the girl was very anaemic. We explained that this was due to a lack of iron and told them which foods

Not a decision to take immediately

contain iron. We advised the child to go and see Jahja for some iron tablets.

Another woman asked me to look at her eye which had a white cloudy area at the side. This might be caused by a vitamine A deficiency. The woman said that she has a little difficulty seeing at night. We advised her to eat carrots and tomatoes. Especially carrots contain a lot of vitamine A. The woman mentioned the fact that there are no carrots available in the village and asked if I could bring some the following week.

After lunch and qat with Fanijah we left . We arrived back in Dhamar at 18.30 hours.

13-7-88: Fifth visit to Bani Muwalled, Hussein, Iftikaar, Sylvia.

We arrived in the village at 9.30. We waited at the p.h.c.u. for the women as this was the appointment. After a little while only a few women arrived, telling us that the other women were waiting in the village. Knowing this we went to the toilets behind the school as this is nearer to the village. Shortly after arriving there about ten women and children collected. First a demonstration was given how to use the toilets and afterwards one of the toilets has been cleaned, using clorox. In this way the women and especially the children (who will be responsible for keeping these toilets clean) learn how to use the provided cleaning utensils.

At 11 o'clock we went to a house fairly near to the school, where other women were waiting. First we explained another time how important it is to keep the toilets tidy and clean and after this we talked about the clorox. Clorox is available in the local shop, but the women did not know how to use it nor the danger of clorox. These points were discussed. We also talked about cleaning the water tanks with clorox using the cleaning brushes provided. The brushes will be kept in Fanijahs house but can be used by all the villagers for cleaning the water storage tanks. The connection of the pipes and the installation of the pump are finished now, so the only thing to do for the villagers is to make the connections to the houses. It is expected that more houses will get a bigger storage tank now, which will need to be cleaned before use.

By this time it was 12 o'clock and some women had to leave for their domestic duties. Before they left we talked briefly about vitamine A and gave the carrots to the women telling them to wash the carrots before eating them. Most women were familiar with carrots, but some were looking very surprised and unsure.

After most women left, some other came with minor health problems and asked for advice which was given. For this reason I believe it is very important that the person keeping the talks can give advice in these things as well. It improves the relation and trust of the women. After a meal in Fanijahs house where I checked one pregnant lady on request we left. It was early this time because of the weather.

2-8-1983: Sixth visit to Bani Muwalled, Hussein, Iftikaar, Sylvia.

Due to the bad road condition after the rain we only arrived in Bani Muwalled at 12 o'clock. The week before five people from the village died under whom Abdulatief the village leader. All the women were mourning and could not attend the meeting. Fanijah lost her father and two brothers and was feeling very depressed. We just visited Fanijah and gave her some moral support.

We also made an appointment for the following week and stressed the importance of her being there. It was a long ride for such a short visit, but nevertheless I am glad we went.

9-3-1983: Seventh visit to Bani Muwalled: Hussein, Iftikaar, Sylvia.

We left Dhamar at 7.15 and due to the bad condition of the road arrived in Bani Muwalled at 10.15. After 15 minutes the women all collected in the house where we were, which turned out to be the local "doctors" house because it had a private pharmacy.

About 40 women were present today. This might be because they could not work on the fields after the rain. It was very difficult to get them quiet initially, but once we got their attention they listened, interested in what we had to say. All 40 of them and the few children present as well.

We started with asking the women if they had used the clorox for cleaning? There were several women who had used it to clean the watertanks. None of these women could tell me about the danger of clorox. We explained again how dangerous it can be when children drink it, and that they always have to close the bottle after use and keep it in a high place out of reach of children.

After this we asked the women if they had been thinking about a place for the toilets? I noticed from their reactions that they had, and they would like one toilet in the upper part of the village and one in the lower part of the village. We asked them to discuss it this week with the other women in the village, so they can show us the places where they would like the toilets to be built. We stressed again the importance of keeping the toilets clean, which they are all aware of. They told us that if somebody would leave the toilets dirty, they would tell her husband.

We asked the women what they do now when they defecate? Now they put a stone on top afterwards and they could also explain why it is better to do so. After that we asked if there were any women who made a hole filled with stones for the disposal of waste water? One family did, but after the rain it was all filled with mud and could not be used anymore. We advised to build a small stone wall around it for protection, and not in an area where the water flows when it is raining. Some other women said they made a hole filled with stones, but most did not. We explained another time why it is good to do so if it is possible. Next week I hope to go and see one of these holes.

One of the women mentioned the fact that the animals defecate and urinate in the village. The stool is used to fertilise the fields. There is very little that can be done to prevent the animals from doing this, but we explained that it is better to dry the stool first before using it on the fields as this will kill most germs.

At about twelf o'clock most women left. The other women started to ask questions about health problems they had..After this we went to see one place where the women would like to have a toilet. If it is suitable I cannot decide and I explained that I will talk it through with the team-leader who will have to take the decision.

After lunch, this time in the house where the meeting was held, we left as it looked like rain. At 16.00 hours we arrived back in Dhamar.

13-9-88: Ninth visit to Bani Muwalled, Peter, Hussein, Abdullah Saleh, Iftikaar, Sylvia.

We arrived in Bani Muwalled at 10 o'clock and visited the p.h.c. unit first, where lots of women were present with their children for vaccinations. I asked the women about the toilets and showed them again to some women. They knew the women's toilet from the drawing on the door, but the toilet looked as if it was not used. After this we went up to the village to speak to the women. First we had a look at the place for the toilets they showed me before, but now they said they preferred another place. The other place was situated slightly outside the village, but is not suitable because of the difficulty it gives with the excreta. The women preferred the other spot because, in this way they will not have any bad smell near the houses. Of course if the toilets are kept clean properly there will not be a smell. The women did not have any other objections and agreed to have the toilets built at the better place.

After this we talked about the O.R.S. Here the women usually dissolve it in too little water, which can be dangerous and cause vomiting. Again we showed how to make the O.R.S. using two small bottles of shamlaan and gave some general advice regarding food after the diarrhoea had gone.

There were a few women very interested, but others kept talking in between making it difficult to talk with the interested ones. After my explanation that if they are not interested it would be better to go and talk outside they kept quiet.

After this we talked about burns and how to treat them. They used to put laban and sugar on the burns, but now they go to see Jahjah for ointments. One of the women mentioned as well the cold water. This was stressed and we explained why it is so important. Afterwards they can use ointment.

After talking about burns the concentration of the women was gone so we stopped and only answered a few more questions about personal problems.

Thereafter we went to see the second place where toilets for the women will be built, and asked the women living nearby what they thought of it. They all thought that it was very good. We visited Selma, one of the women who delivered two weeks ago. All was well and she was very pleased with the idea to get a toilet so near by her house. If the women will use the toilets has to be seen, but it appears that they are all in favour of it and if it will work somewhere, it will be in this village.

After visiting Selma we spoke with some teachers and made an appointment to see them after two weeks to discuss a program for the talks in the school, together with Abdullah Jahjah a training supervisor from the HOD.

We had lunch and some qat before returning to Dhamar.

5.12. '88 visit to bani Muwallid, abdualsalaam, abdullah (trainer-supervisor), nafiesah, erica, hieke.

The aim of this visit was to get an idea about how the village is using the water, toilets, and other possible improvements since the water/sanitation project works in bani muwallid. We would like to find out if health-education sessions have been effective; which of course is very difficult, because of lack of indicators.

We left at 7.15 from dhamar. On our way we met nadzjebah, who is joining the FPHCW-training in dawran anis. She asked if she could join us when she heard about the reason of our visit. ('this is going to be part of her work as well', she mentioned)

We visited the PHC-unit; Yahia showed us around and joined us later on to B.M. He told it was usually rather busy in the unit; 10-15 people, men as well as women and children do visit the unit. He complained of lack of medicines. The toilets are regularly used by the 'sick people'. Around 10.15 we arrived in B.M.

Together we went to the place where they are building the new mosk and had a look at the toilets. Item of discussion is whether the toilets are going to be for the men or the women. -officially they are meant for the women, but since the mosk is going to be for themen, it is obvious that they also are going to make use of the toilets.

Woman told that the toilets are used by the men as well as by the women, without any problem. (we discussed this later on in the women's meeting) children are not allowed to enter the toilets, (-cip-): They will make the toilets dirty.... No buckets were in the toilets (to flush) and the doors were rather difficult to close. We inspected the watertank on top; there was an opening at the side, a reason why dust and dirt came in. This water is not used for drinking, so no big problem.

After this we had tea together in one of the houses. The man who is in charge of the financial things, genrator, etc. had some problems with the meters. Abdulsalaam discussed it with him. They made a calculation and it turned out to be very expensive; 150 - 180 ryals a month per family.

Abdullah discussed his health-education with nafiesah and nazjebah. When we started our 'walk' through the village, abdullah and yahia went to the school, before ~~les~~ finished.

We met many women on our way and had short discussions with them, invited them for our meeting later on.

The village looked clean, we did not see any dirty pools or streaming water and rubbish around (maybe underneath the stones..??) A vegetable garden with papaya-trees was made next to one of the houses and the waste water from the kitchen was running into the garden. However also some heaps of 'shit' were found (children..?)

The women seemed satisfied and one of the men told how nice it was for the women that they did not have to carry water on their heads anymore.

We saw the toilets for the women; one door was open, the other was locked. The woman who has the keys (fatimah) went out in the fields. They told that the doors are usually open during the day, and closed during the night. ('at night they don't have to go') The toilet we saw looked clean, a bucket was there. No one is responsible for cleaning; this is not necessary according to them, everyone cleans after using it. The toilet is used for the washing before praying. They complain that they miss a place to pray. All would like such a place next to the toilets.

It is difficult to find out how frequently the toilets are really used...

We went to the other mosk and saw the places for washing and the new toilets. The toilets were locked. The one we saw looked clean, but no bucket was in (?)

Unclear how often the toilets are used.

The cystem was down; little water (very green- was in. It is used for the fields only.

We continued our way and 'inspected' some watertanks; several had leaking taps, but something was underneath to collect the water (except one or two) The lids on top had 'little holes' to let the dust in. Erica suggested to cover the openings with plastic bags before closing with the lid, like she saw it in an other village. Most tanks are cleaned every 5 or 6 days, -without clorox- but in the usual way. Some told they boil the water for drinking; others say they don't. Nafiesah was very interested, she met several women she knows from the TBA-training (2 years ago in Bani Muwallid), also Fanyah, she knew. Fanyah was very pleased to see us (+ to hear about Sylvia)

Finally we arrived on top of the hill, to see the big water reservoir. Also here, the taps of the tanks next to it were leaking. Lids of the tanks were covered with plastic bags to avoid

(leaking tap) underneath the other one was a bowl. This should be discussed with the men, so that they can repair the taps. The big tank is cleaned once a week. Most watermeters are wet inside, which makes it difficult to check the water use.

We went down to inspect the place where there used to be a big mud-pool (old cyst). It was now filled with mud and stones and no walls were around it like before. Hopefully during the rainy period the water can flow away.

Before we had lunch, we had a look in the kitchen. 3 big bowls of dirty water were standing there; it was meant for the cows. They showed us the spot where the washing water is thrown. A small 'ditch' next to the house, with a lot of rubbish in it. Nafiesah and Nadzjebah immediately started to explain the dangers of this, but they told that they already had plans to take it away and burn it.

Before we started eating, Nafiesah asked for water, soap, a bucket and a tin for handwashing. A girl brought us 2 buckets, cold water, no soap. Why no soap? The girl answered that it was expensive and had to come from dhamar (?). Erica wondered if they did not like to wash their hands with soap, before eating, because of the smell and taste it gives. Nadzjebah thought this could be the reason; Nafiesah did not think this was a reason. After lunch no soap was given.

Immediately after lunch the women started coming. We moved to another house, with more space. Abdulsalaam went to Assaifer to have discussions about toilets and other business.

+ 40 women (or more?) gathered.

We started to explain the reason for the meeting. At first we would like to know what has been improved during the last months. To make this clear we let 2 women talk about their daily work; when the first one forgot to mention anything, it was corrected by the second one (first about the situation before the house connections were there)

They mentioned that they had to fetch water 4 - 6 times a day, no spare time, in the evening they were very tired, sore neck + shoulder muscles. Then 2 other women had to tell about the daily programme after the house connections were there. Still they do have a heavy workload, -mostly due to many small children + woodfetching- but they said to be less tired at the end of the day. Some women had time to make baskets + to do sewing, but most of the women are still too busy to do this kind of crafts.

We asked if they could mention other changes. They mentioned the toilets. (again it was difficult to find out if they are used by everyone, although, ofcourse everyone said so.

Problems: they cannot enter the toilets near the mosk, because men are working in front of the toilets.

two toilets are not enough; they need a third one (probably they all have to go at the same time and to wait for each other. -after the men finish their work.?

Some women have to walk 10 - 15 minutes to reach the toilets;-please, some more toilets on other different places.

During the discussion they say the toilet next to the new mosk belongs to them; inshallah later on more toilets will be built for the men....

Children still defecate outside. I asked if they remember what sylvia had told them about this. They answered to bury the stool and cover it with a stone. It is done by some of the older children.

We asked if more things changed in the village and they said that their village looks nicer and cleaner.

What about diarrhoea? Yes, many children had diarrhoea. One woman said that now there is less diarrhoea than there used to be.

Why? Because now they can get medicines from the unit. After a while a woman answered that it is because of the clean water.

What to do when the pch-worker is not there? They forgot about the preparation of ORS and salt + sugar solution. ORS is dissolved in a wrong way, (half of the packet in half a bottle shamlan -small one) Nafiesah and Nazjebah explained it again. Both were involved quite well, afterwards Fanyah + Selma repeated it for the other women. Due to the large number of women the discussion was sometimes difficult.

Next subject was handwashing with soap. They do not use soap, because it is expensive they say. It costs 4 or 5 rials. After cooking the women clean their hands with flour before eating with water only.

I tried to explain that soap does not have to be expensive; it can last a long time, it is not necessary to use a lot. I recommended a special piece of soap for handwashing before eating, so that it is always there and does not finish quickly.

What can happen if you don't wash hands with soap and eat with dirty hands? They answered that you can get sick.

I asked: that if one gets sick, one might need medicines. How expensive are medicines?
A woman answered immediately; 150 riyals (she probably had just bought soap...)
So I asked what was more expensive and everyone agreed that soap was cheap!

Waste water disposal:

Kitchenwater is given to cows, less dirty water to trees, and some throw the water 'far away' I asked them to show us these 'far away places' after the meeting.

Waste is burned by some people; ashes are used for the fields.

Questions they had were:

- more toilets for people that live further away (fanyah)
- a third toilet near the mosk as well as the other women's toilets
- they want butagas to increase the workload more and a better road to their village!

We left the house and asked the women to show us where they take their waste water and to show us more 'dirty places'(!)

Some throw the water down the rock. We also saw some water running from a house to the field; a dirty stream, but when we mentioned it, they answered that they are going to put cement to make it cleaner. Also underneath the leaking taps of the tank they want to put cement.

A spot where they burn waste was shown.

The 'far-away-places' were too far away to check; it was already too late.!

In the meantime the men had had some discussions together about diseases caused by lack of water and other subjects (?)

In the morning Abdullah and Yahia attended some health-education lessons at the school and they were enthusiastic about it.

On our way back we visited another village (called something like 'Na'aam')?

Here were taps made with concrete underneath and next to it an overflow for the cows to drink from. Erica suggested to remove that to a place further away (to avoid cow shit near the taps) and instead make a place where the women can wash their clothes. We discussed it with the women and they thought it was a good idea.

One older man who had heard this said that the women could better wash at the usual places....

A pipe to remove the dirty water to a pit still has to be made.

*** Before we left, we had bought water in a shop near Assaifer, where many things were available; probably plenty of soap..!

After seven o'clock we arrived in dhamar

ERICA ZWARR

5-12-1983. Bani Mwaled. I.W.P.2. (Dieke Nafisa, Abdula, Abdul Salam, trainee from Dawran, Erica.)

Objectives of our visit:-To see if there are any problems with the water, especially with the houseconnections and the waste water

-To see the new toilets: if they are used, who uses them, if they are clean, if people has any comments on them,

-To get to know what the women still know of the items Sylvia discussed with them,

-To ask if there are still any questions about the project.

WATER

Going through the village we saw that most of the people had made their houseconnections and did it in a good way. Some of the taps were leaking a little bit. A few had put an empty can under it, or some stones. However it seems that most people think that a little bit of clean water can't cause a healthproblem, although the women could tell us that it could. Maybe it is good to advise to make allways a small pit filled with stones under the tap.

We didn't see wastewater problems. The women told us that it is with water as with firewood. "You don't use more just because you have more". (N.B. The watermeters are not used yet, the people don't yet pay for the amount of water used.) This is a bit contrarely with them saying: we clean more often since the water came.

Water with a lot of soap in it is thrown far away from the house. The garbage that the animals can't eat is thrown on the same spot, but we saw no problems of it for the moment. Water from the kitchens with small rests of food in it is given to the cows. The rest of the wastewater (p.e. water out of the hamam) is used for small gardens. One woman wanted her husband to make a cement floor where the hamamwater falls. A small pipe will be cheaper and as usefull. Nevertheless the idea is good and it is nice to have a cement floor near the house. The women were very happy with the water, which is of good drinking quality. They have more than enough for home-use, but they will not use it for irrigation.

TOILETS

We didn't see human feces, except behind the toilets built by the people themselves at the place where cars from outside stop. We were told that those toilets will not be used anymore.

The women were very pleased with their toilets and asked for a few more. The village was not rich enough to built them, they said.

One of the ladies toilets was locked, but the women assured us that it was an exception.

The cleaning of the toilets didn't give any problem, because everybody

who uses them had been told to clean it after use. And the toilets were clean indeed. Small children children go either in the house or to a place far away to defecate.

As we gave them a place to bathe, why didn't we give a small mosque near it? The women asked us. It is too early to conclude that the public toilets are a success on the long run.

WOMENMEETING

Heke will report about the womenmeeting.

Abdula, the trainer/supervisor of D.R.I.P. gave health education at the school. I think that he talked already a few times about the toilets and everything that goes with it. The reason why he talked this time with the older pupils about hepatitis is not known to me

Nafisa, who knows the village from her training three years ago found the place completely changed. The water was save, there were no pools with dirty water anymore, she didn't see garbage everywhere, the children looked clean and healthy and there was an healthcenter. She thinks that the healthcenter and the project did a big job and she invited us to come also to her village.

45dec. 1988. Al Ne'amah. Public taps. I.W.P.5.

The cement basin under the taps has a drainage outlet to a smaller basin, made by the villagers themselves as drinkingplace for the animals. Along the first basin a shallow soak away-pit had been made filled with stones. The second basin has an outlet that will be connected with a long pipe to a large soak away-pit. The place of the drinking place for the cattle will give probably problems in the future, because it is very close to the taps and between the village and the taps. People who want to get water has to walk through the dung. The shape of the drinkingbasin is such that animals can step in it. Maybe it is possible to make a new drinkingplace near the big soak away-pit and use the existing one **for** washing clothes.

Note: The men said that the women will wash the clothes near the house while the women preferred to do the laundry near the taps.

Question: What is a good design for a drinkingplace for animals?

Will the people not use the first basin as it is closer to the taps?

SKWSD/YAK
Received March 1989

AL MUSHAHIDHAH

The area of Al Mushahidhah consists of 6 villages, Hajjaan, Al Haraajim Beit al Jabrie, Quarijat al Anisie, Beit Jurhum and Al Ur.

The first visit to Al Mushahidhah was on 13-6-1988. I went to Quarijat al Anisie with Thuma a Soudanese midwife who is working in the health centre of Hamaam Alie, Hoeria the soudanese nurse of Hamaam Alie, Fatima who is a trainer supervisor who was temporarily visiting the health centre in Hamaam Alie. Ahmed the driver of Hamaam Alie went with us because he lives in the village.

~~The idea was that Thuma after the first few visits would continue the health education in the area of Al Mushahidhah.~~

On the way to Quariat al Anisie we went to Hajjaan where on of the P.H.C.W., Alie Mata'ana lives. He came with us to the village as well. On arrival in Quariat al Anisie, women and children collected and we all entered the house of Saboula the t.b.a. While we were drinking tea we explained that we wanted to visit the village every week to talk with the women about health and water in relation with the water project under construction. We told the women that we could talk about other health related problems if they wanted. After this we obtained some general information about the village where a lot of children live. At the moment the women have to walk for an hour to get the water from the wadi. Therefore they use water very sparingly and have not got any waste water at present. We talked about hygiene in general which especially the P.H.C.W. Alie did very well. The main point discussed was hand washing, linked to the fact that Saboula the t.b.a. had an infection on her finger which might have been prevented by proper hand washing. At this first visit were 6 women present and a lot of children. After 2 hours we left after making a new appointment for the following week. We asked Saboula to ask more women to come and to ask the women from Beit Jurhum and Al Ur as well.

The second visit to Al Mushahidhah was on 21-6-1988. Wilhelmen a dutch public health nurse, Hussein the assistant supervisor and I went first to Hamaam Alie to collect Thuma the Soudanese midwife. Thuma was not present and after 20 minutes we left with Houria the soudanese nurse to Quariat al Anisie On the way to the village we wanted to warn Alie Mata'ana who was not at home. When we arrived in the village the women collected quickly in the house of Saboula . There were 10 women present and many more children. Houria the nurse was not actively participating in the conversation ,so that I did most of the talking.

We started to explain what germs are and how they can cause disease. The women do realise that they have to keep everything clean, but all the time they referred to the fact that they have not got any water. I explained to them that they could wash themselves with very little water by using a cloth. We talked about first washing the upper part of the body and afterwards the lower part. I noticed Yemini women just do it the other way around.

We talked about storing the water in the houses and cleaning water containers. About boiling water and milk before drinking and washing vegetables and cutlery. The contamination of food through flies was mentioned. Most of these points will need to be repeated at our next visit. The women who were present listened carefully and were concentrating most of the time we were talking. When asked to tell what was discussed some women were very good in repeating most of the conversation. The women would tell these things to the other women in the village as well to the women from Al Jurhum and Al Ur as the women from these villages were not present. Again I stressed the importance of the presence of these women.

The third visit to Al Mushahidhah was on 27-6-1988. Hussein drove Wilhelmien, Thuma and me to the village. On arrival +12 women collected rapidly. Saboula showed us a paper on which she collected signatures as she wants to get paid for the work she is doing which is more than a jiddah usually does.

After this we asked the women if they could tell what we discussed the last time. They remembered the outlines of the last talk.

We explained another time about germs, what they are and how they can cause disease. Stressing another time the importance of cleaning personal hygiene and boiling water. While we were talking the women reacted as if they remembered it again. The message about cleaning was very well understood and the children that were present all looked cleaner than on previous visits.

Next we talked about defecation. ~~There are 3 hamaams in the village~~ Most of the people defecate and urinate outside. They have not got a special spot. We explained the danger of this, as children and chickens might walk through it and so bring it in the house. Here small children are playing on the floor and will get the dirt and stool on their hands. When they put their dirty hands in their mouth they might easily get ill. It is better when defecating outside to dig a little hole so the stool can be covered with sand afterwards. The women did understand this principle, and told it to newcomers. When talking about cleaning the hamaams the women said that they did not have any spare water for this purpose. Water without any soap is used as drinking water for the cows and with soap for cleaning the house.

At 16.30 women from the other two villages came. Too late as we just wanted to leave. We told them to come earlier the next time. We more or less repeated what has been said today. A lot of the talking was done by the other women who had listened carefully. They understood what has been said, but why most things had to be done is not really clear to them.

One of the women mentioned vitamin D and sunlight. We explained that sunlight on the skin forms vitamin D which is very important for the growth of the bones of children. Therefore it is good to leave children in the sun for 5 to 10 minutes every day, with little clothes on.

On the way back to Dhamar it started raining. Due to the rain we only arrived back in Dhamar at 3 o'clock.

The fourth visit to Al Mushahidhah was on 4-7-'88. Hieke Kaastra a dutch public health nurse who is working in Dawran Anis will take over the visits in Al Mushahidhah as from next week. Hieke and Leika a jiddah who is working with Hieke in the health centre in Dawran came with Hussein and me to the village.

Today there were about 20 - 25 women present. The women from Al Ur and beit Jurhum were not there.

As there were more women than usual it was fairly noisy and difficult to get the attention of all the women at the same time.

We very briefly asked the women what they remembered of last time the fact that they have to keep everything clean is now clear for the women, and when asked, they say they that they do it.

Today we concentrated on the transport and storage of water. The women transport the water in jerry cans and keep it at home in a small tank, jerry cans and thermos flasks. Drinking water is first boiled and stored in the flasks and small jerry cans, that are kept specially for drinking water. The water from the tank is used for washing and other things like cleaning. The women clean the containers regularly with soap and salt.

We introduced clorox to the women, telling them that it is a very strong soap that kills all the germs, much more than normal soap does. We told the women how to use clorox (one cup of clorox in one bucket of water. This solution can be used to clean the water containers and the same water can be used to clean the floor or the hamaam. As clorox is such a strong soap it is very dangerous as well. If children drink it it might kill them. Therefore it is important to keep the bottle tightly closed and out of reach for children.

We stressed the fact of the danger another time. We gave one bottle of clorox and two different brushes to Saboula. These are for general use of all women in the village. As it is a small village I think this might work. How the introduction of the clorox in the village will work will have to be observed on subsequent visits.

10.07.'88 : 5th visit to Mushahidah - (Leika Hussein Saleh + Hieke Kaastra, Dawran)

15 women were present and there was also a short meeting with PHC-worker Ali Mata'ana from Hajjaan.

We started with a review of the last meeting. Saboulah cleaned her water tank with the Clorox we introduced. She had only used the water+ clorox for the tank and not cleaned anything else with it afterwards.

She mentioned she had used some clorox for washing the white clothes and she was very enthusiastic about the white colour afterwards!!!

Our plan for this meeting was to have a small demonstration in cleaning watertanks, in order to know how the women used the clorox and brush.

However they had just filled up all their tanks with water, so we postponed this to next week.

We continued the meeting with a review on the first lessons.

The women mentioned that they could not use less water for washing themselves, because this was not in correspondence with the things written in the Koran.

I found this out by doing a kind of roleplay on how to wash oneself; I started 'washing myself' the way it was discussed in one of the meetings before. (using a cloth and little water)

3 women started to 'wash themselves' the way they used to do it.

It was clear that they could never wash themselves with less water after the menstruation, sleeping with husband and before praying.

At first they wash their hands, after this they clean their teeth and rinse the mouth, then their 'lower parts'. They are not allowed to touch the clean water with their hands or with a cloth; but they have to use a small tin to scoop the water out of the bucket.

After this they start washing their face, arms, body, hair, etc.

For 'small washing' in between, they thought it was alright to use a cloth and to start with the face.

We asked them if they could collect the dirty water in an other bucket to recycle it. Some women thought this was a good idea, but I doubt if they really do it; (as they are used to pour the water over their bodies, it is difficult to collect it) They need one bucket filled with water to wash themselves the 'islamic way'

After this we discussed the use of soap. From my nanaam experiences I know that the women use an awful lot of soap, washing themselves.

We explained that it is better not to use that much soap; to prevent a dry skin and if there is less soap in the dirty water they can use it for plants, trees, etc. The women have the idea that it is not good to give dirty water to plants and trees. They mention that after menstruation they have to use a lot of soap..

We continued the review by asking where they urinate and defaecate and how (digging a small hole or not) Again we did a roleplay and it became clear that they did it the way they had always done it.

After my demonstration, digging a hole and cover it, they all agreed that this was a better way.

Talking about hygiene I asked if I could see the hands and fingernails of the children. We did not see any dirty hands and fingernails, which really surprised us!!

It also was surprising how well they remembered the subjects discussed before.

Two women from Jurhum came later and Saboulah told them what was discussed before they came.

We asked Saboulah if she could go to Al Ur to tell the women about the discussed items. In the end we talked about Saboulah's work, treatments, payment, etc.

Our programme for next week is to do the tank-cleaning demonstration and see if there are some more items that have to be discussed.

19.07.'88 : 6th visit to Mushahidhah.

This afternoon there were about 15- 20 women present at Saboulah's house. Before the meeting started I had a small discussion with Ali Mata'ana (phcw), who joined this afternoon.

Ali has been in the surrounding villages to announce our visits. He already started to talk about hygiene there.

This afternoon he started talking about hygiene, causes of diarrhoea, flies, the use of 'pif-paf'.

Also one of the FPHCW-trainees from Dawran Anis, Amina...?..., was present.

We tried to involve her in giving the health education, which was a bit difficult because she did not join the previous meetings. It might be an idea to take her with us when we visit the neighbouring villages. She is the one who is going to work at the PHC-unit, after finishing her education.

Saboulah mentioned that she has visited Al Ur and Jurhum to discuss the items we discussed before. This week she is going there again to continue.

We started to talk about the cleaning of the watertanks. Saboulah showed us an almost empty Clorox bottle and told that 6 tanks have been cleaned with it this week. Afterwards they had cleaned the floor with it.

Again this afternoon there were no empty watertanks to give the 'cleaning demonstration'. They promised that we could have a look at the clean tanks. We also planned a 'visit' to the hamaams in the village. Due to the heavy rain this was postponed.

Saboulah contacted the shopkeeper about the Clorox. Until now he did not sell it in his shop. He is willing to buy it from Dhamar, but asks a very high price. Ali proposes to buy it in Dhamar and to give it to Saboulah, so that the people can buy it from her, if they want.

We continued the meeting by talking about the amount of water, tea, and other liquids the women drink daily.

I asked each of them how many glasses they drink. It varies from 2 - 5 glasses tea, coffee or water a day. Besides this they drink a little 'marrac' and sometimes water from tins, but in general they drink far too less.

We emphasized the importance of drinking more, especially for pregnant and breastfeeding women. Quite a few women complained of 'burning urine' (cystitis). Most of the women go to the toilet once or twice daily.

When they have the water in their village, it must be easier for them to drink more, but as they are so used to little amounts of liquids, I doubt if they really are going to drink more when there is more water available.

For this I think this is an important item to discuss again and again.

My impression of the women in Mushahidhah is that they now understand quite well the importance of Hygiene, use of water and the health aspect of it.

The plan is to go to Mushahidha one or two times more and then continue with the village Haraajim.

As soon the water is in the village, we want to go back to Mushahidha to repeat some of the most important items and to talk about disposal of waste water.

As soon as the toilets are built near the FHC-unit and the school, we want to go there to give some health education.

- Saboulah is a very respected woman in the area and the way she is giving health education seems very good, but we have to consider if she is the right woman to concentrate on, since there is an other woman joining the FPHCW-training. Saboulah will probably never get paid for the good job she does, we have to make sure not to create wrong expectations (about any salary) by involving her too much and extend her activities.

01.08.'88 : 7 th visit to Mushahidhah. (Leikah, Hieke)

We went to Saboulah's house, but heard she was with her daughter in the new village on top of the hill. We went there and met her daughter + ± 10 other women. Some of the women were from Jurhum and Ur. Several women joined the meeting for the first time.

Our plan was to have a look at the toilets and if possible have a tank cleaning demonstration. However it was raining terribly, so we decided to postpone this again.

We started with a short review. ao. why is it important to drink a lot and in which cases is it extra important.

It took some time before they remembered. Most of the women could not tell exactly tell the reason why.

others:

- why is water important for health?
- how to treat eye infections?
- how to treat skin infections?
- how to prevent these infections?

These questions were all answered correctly.

We asked them what to do when children have a fever. Although this subject had not been discussed before they answered immediately: wash them with cold water. Several women tried it out and told it helped very well.

(in most area's people are afraid to wash children with fever !)

Ali -the PHC worker- had discussed this subject with the women, some time ago.

We added that it is also important to give children with a fever plenty of water to drink.

Again we mentioned the cleaning of the watertanks. They all told they clean the tanks once a week. The big tank is cleaned before the water-pump comes to fill it up. Clorox is not yet available in their village, so they clean again with water, salt and soap and rinse with clean water afterwards.

We continued by asking them what they would do when there was more water available than there is now.

answer: clean everything better and more often (increasing workload- no problem)! They also mentioned that they would use the waste water for other purposes, but were aware of the fact it is important not to use more than is necessary.

We suggested to lay out vegetable gardens when there is more water available. When there is not too much soap in the waste water it is no problem to use this water for the gardens.

At the moment they only grow the herbs (moesjgoeri), they use to 'decorate' themselves at parties.

It was suggested to grow especially green leaved vegetables, such as cabbage (malfoef), spinach (melouchia), 'goesjmi'.

We talked about anaemia and how to prevent it. Quite a few of the women were anaemic. We explained that green leaved vegetables are good to prevent anaemia.

It was promised to discuss the subject of the waste water later, when the water is pumped up to the village.

When there were no questions left, we asked the women if they will discuss these subjects with other women.

The plan is to discuss the same subjects now in Al Haraajim (together with Amina Muhammed, FPCH-trainee), after that we come back to al Anri.

So far I am impressed by the enthousiasme and attitude of the women of Al Anri, It will be very interesting to find out if they really use their (new) knowledge. Therefor it surely needs some follow-up.

This will take place in ± 1 1/2 - 2 months time. Then we need to discuss the subject waste water esp.

15.03.'68 1st visit to bijt Aldzjabri (Al Mushahidha) Leikah, Hildah, Hieke.

During the first 2 months we concentrated on the villages Al Anisi, Al Jurhum, Al Ur. The remaining villages of the area Al Mushahidha are Hajjaam, Bijt Aldzjabri and Al Haraajim.

Hajjaam

The distance between Hajjaam and the other 2 villages is about 45 minutes walking (or more); whereas the distance between Al dzjabri and Al Haraajim is only 5 min. For this reason we decided to have our meetings in one of these two villages. Ali Mata'ana already announced our visits and told us to go to the house of Ali Muhammed Aldzjabri.

In the beginning it was rather difficult to make contact with the women. They were shy and seemed a bit suspicious, did not understand very well the reason of our visit. Later on it appeared that Ali had only told the men of the village of our planned meetings.

We explained and explained and in the end they agreed.

We entered the house of Ali Muhammeds daughter, Noeriah Muh. Aldzjabri, and we asked the children to go to Al Haraajim to tell the women to join us.

One of the men went around to tell the women of Aldzjabri to come to the house of Noeriah. It took some time before the women gathered. 7 women were present (+ children)

We started with a general discussion, explained why we think giving health education to women is important.

We talked about our programme for the coming meetings.

During the remaining time we just gathered a lot of information.

They fetch the water from the wadi, which takes approximately 3 - 4 hours.

It is done by the women and the children and they use donkeys to transport the water. They say the water is rather clean, sometimes there is a little mud in, but if they wait it sinks down. It does not take long to collect the water. They scoop it from a running stream.

The water is stored in a tank near the houses and used for washing before praying, washing of the children and washing clothes. (when they wash the children they heat the water and they use soap if it is available.) Children are washed 2 or 3 times a week.

Every 4 or 5 days a 'watercar' comes to bring water from another place in the wadi. The women complain about the dirt in the water. (they tell there are a lot of 'mikrobaat' in this water; it does not look clean) This water they use in the kitchen for cleaning the vegetables and wash the dishes.

Drinking water comes from the wadi; they use it without boiling it.

They told that some children have diarrhoea every now and then, but not very much. The same with skin problems and eye- and ear infections.

In general the children we saw looked very clean and had clean clothes and no dirt underneath their fingernails.

There is a toilet in every house, but people do never use those, because lack of water. Most of the people go to a place far away from the village to defecate and urinate, others do it near the houses. We explained the dangers of this, (spreading of diseases by flies, chickens, etc. and how children can get diarrhoea very quickly) It was understood well. We did the same suggestion like we did in Al Anisi, to dig a hole and bury the stool. (small roleplay) The schoolchildren were asked to tell it to their friends.

In the end the women said they thought these meetings about water and health were important and they would like us to come again. We promised to be there next week around 15.00 and asked them to be present at the same place, so that we can start a little bit earlier. + take the egg from Haraajim.

* Amina Muhammed, the FPCHW-trainee from This area decided not to join us, because she is pregnant and scared because of the bumpy roads. (also a reason is that the teacher did not agree)

* Maybe it is an idea to take Saboulah with us a next time, but the problem with her is that she does not want to work so very much, without getting paid, which is understandable.

* next week we want to make the relation between water and health more clear, germs, infections, storing of the water

22.08.'88: second visit to Bijt Aldzjabri - Mishahidha, Leikah, Hieke.

We arrived in the village just before three o'clock. Last week we told the women to be present around this time, together with the women from Al Haraajim. We had to wait + half an hour, because the women were still having lunch. There were no women from Haraajim. The women told they had no time to come and were not very interested.

When we started our 'lessons', 8 women were present, together with many children. Later on we asked some of the children to leave, because it was too difficult to concentrate and rather noisy.

One of the women came from Sana'a and was only visiting the village. She however showed a lot of interest and could explain very well to the others why these meetings could be important. She told that since she stays in Al Dzjabri, she got an irritated skin and she thought this was due to the dirty water.

Before the women gathered I had checked the water tanks; the water did not look very clean but they told they only use it for washing the children and the clothes. A man told me that the water that is taken by the car is dirty, because the tank of the car is not clean. The car is coming once a week and to fill up a tank it costs 150 rial.

I asked the women how often this tank is cleaned and they answered that it is never cleaned.

The water they use in the kitchen is stored in the jerrycans they fetch it in. These are cleaned always before fetching new water. At the moment there were 8 jerrycans in the kitchen. The family of Noeriah uses approximately 4 cans a day. They have 3 donkeys, so they can fetch 3 cans each time.

we explained the dangers of using dirty water, explained what germs are and how they spread infections and diseases. What to do to kill them or to avoid them?? Some of the women came with the right answers. After talking about hygiene, We started asking them questions like:

- what can happen if you don't wash your hands before eating?
- if you always wash your hands before eating, is it safe?
- what can happen if you don't wash vegetables, before eating them?
- and if you do, is it always safe?
- if you wash your vegetables with clean (boiled) water and you wash your hands, is there still a possibility germs can enter your body?

An interesting discussion followed after putting these questions.

Usually the water they wash the vegetables in is not clean, so we asked them if they could boil it before or store it for a longer time to get the germs killed.

It is well known that the sun kills germs and therefore it is important to put blankets in the sun. We explained that they could also 'clean' water by storing it in a Shamlan bottle and put it in the sun during a day.

We talked a little about what can happen to your body when the 'mikroebaat' enter. This needs more discussion next week. Someone answered it caused headaches.

From this we came at the cystitis which one of the women had. She went to the clinic and got medicines for this, which caused a lot of stomach pains.

She fetched the tablets and showed them; 4 different kinds of vitamins and a pain-killer. We explained about the importance of good food instead of eating these tablets and advised her to drink a lot to get rid of her cystitis and to avoid this problem.

One of their questions is to talk more about health problems and how to treat diseases. We explained that we are going to discuss this in the following meetings, to show the relation between unclean water and illness.

What to do with the women from Haraajim? The woman from Sana'a suggested that she wants to explain the whole thing during the evening. There seems to be a big meeting in the evening in Noeriah's house, where also the women of Haraajim join.

This afternoon we did not have enough time to discuss many items; we asked the women again to be present a bit earlier.

One of the women started to complain that it takes so long before the water they always promise, is there!!

Hussein, the driver had visited the PH unit in the meanwhile and told that they now started the building of the toilets and that they will be ready by next week.

On the way back we had a look at one of the places where they sometimes fetch the water. It is not easy to reach the place and there is water only 2 months a year. The first water basin did contained very dirty water, but we were told that this is only used for animals, the second one looked a bit cleaner, but because we were too far away from it, we could not check it very well.

We went to Hamaam Ali where we met Peter + 2 IWP colleagues. Together with them we went to Aldzjabri. Before we met the women, we had a look at the toilets under construction, near the PH unit and the school. Around three we arrived in the village. Again the women told us they went to see the women of Harraajim, but they had no time to come to Aldzjabri to join our meetings.

The women of Aldzjabri were not interested in going to Haraajim together with us this time, so we decided to have the meeting in their village.

Like the 2 other times we went here, the women do not seem to be very enthusiastic. Later on in the afternoon they get more motivated. This time there were about 10 women and again a lot of children.

We started to talk to the children until all the women were present.

Almost all of the children said they had worms. We explained what could be the reason for this and what they can do to prevent this. This time there were some dirty hands and nails. They said they all know the importance of hygiene; their teacher told them.

One of the smaller children had a head wound; it was treated with powder. We explained it is better not to use this white powder, but clean it with boiled water and if there are some problems go to the PH unit or the clinic. Like last week they complained about the PH unit because it is not always open.

Then we started with a review of the discussed subjects. A few of the women could explain what had been discussed last week. Some of the children could explain exactly what germs are and how they can cause diseases. Again they told they had learned this at school.

We continued the meeting by talking about diarrhea. They mentioned that one of the reasons for diarrhea was dirty water. If vegetables are washed with dirty water it can cause diarrhoea. However, when was asked who boiled the water before using or drinking it, no one did....

At the moment there was no one who had diarrhoea, but several complained of stomach pains. We asked what to do when there is diarrhoea. One woman mentioned to give boiled water; one of the older boys mentioned ORS. We explained how to make the water and salt with sugar solution, by a small demonstration. (maybe this subject needs more discussion next time; we did not discuss other reasons for having diarrhoea)

After this the subject changed to the use of toilets. I asked what they thought was better; use a toilet or pass urine and stool somewhere outside and why.

Some of the women thought it was better to do it outside; it is cleaner.

The boys said it was better to use a toilet because it prevents the spreading of diseases. Both answers were discussed. Before, they had mentioned they do not use their toilets because they have no water to clean. Water for washing hands is always needed, they only need water to keep the toilet clean. We suggested if they could not use some of the waste water to clean the toilets. (before I discussed this with Leikah; she thought this should be possible, but she expected that the women did not want to do it (?)) One of the women said she used the toilet. It did not become clear how often she cleans it ('every now and then / whenever it is dirty')

She mentioned she washes her children in the Hamaam and uses the same water to clean it.

This could be a good example for the others. They thought it was a good suggestion.

It will be interesting to ask next time who followed this example.

I wondered if there will be enough water left over for the cows; before they mentioned they give the waste water to their cow. But they now said it was no problem.

Other women told they clean their 'masfah' with the waste water (a kind of cement 'sink' in the corner of the kitchen) From this, the water runs outside. As 1 hour passes quickly, we had no time to discuss other subjects.

Next week we plan to go to Haraajim to find out why the women there are not interested to join. We would like to involve Saboulah, the TBA of Al Anisie, There is a possibility that she can get paid by the water project. There is also a possibility that Leikah cannot join me anymore to Mushahidha, because after one month I might use a whole day to visit the women of this area. One hour only is actually too short to discuss the subjects and not enough time is left for giving demonstrations or other 'outside activities'

13
5. 09. '88 first visit to Al Haraajim (Leikah, Hieke, Saboulah, Hussein)

We left Dawran at 12.30 -half an hour ^{earlier} than usual- because we decided to fetch Saboulah from Al Anisie.

She joined us this time to Al Haraajim. Some of the men in Al Anisie advised us to go to the house of Muh. Mahsoen, because this is situated between the village of Aldzjabri and the old village of Haraajim.

Here we arrived around 3 O'clock and we were invited immediately; they had heard about our intention to visit them.

It took about 15 minutes before the women were ready with their lunches and praying (leikah suggested we should ask them to do the praying after the meeting, to save some time).

We explained that we would like them to join the meetings together with the women of Al Dzjabri.

They told it was difficult for them to go to Al Dzjabri, because they have to take many young children and for some women it is quite far. (the houses are not situated together) ~~They had no time, because they had...~~

Together with Hussein, who joined the first 10 minutes, we discussed what would be the best place to continue the meetings. We all agreed upon the house of Muh. Mahsoen, because it is the easiest house to reach, for the women from Al Dzjabri as well as for the others. Besides this, Al Haraajim seems to be a much bigger village than Al Dzjabri (over 100 houses)

During this afternoon 10 - 20 women were present and listened quite interestedly. Most of the children were too young to be involved, except for some boys who told us they had worms (hanesj) they thought it came because they eat too much sugar.

Saboulah started to explain the reason for our visits to the area, after which they immediately started to complain that it takes so long before the water is there and if we couldnot do anything about this...

We told them what they can expect from these meetings and a little bit about the programme. This first afternoon we gathered some information:

- it takes 4 hours altogether to fetch the water from the wadi (distance from the village to the wadi is 5 km.) It is mostly done by the children, sometimes by the women. They also take water from the source near Hajjaam, but this is also used for the animals as it is very dirty. (this place we checked 2 weeks ago, on our way back)
- The water from the wadi is 'sometimes clean; sometimes very dirty' donkeys walk into the water, a lot of mud, etc.
- They fetch the water with donkeys (2 jerrycans a donkey)
- They use each others donkeys to fetch water for each other. and do this by turns. In this way they don't have to go every day, but every other day. Sometimes however, they need to go twice a day, because they don't have enough donkeys to carry the water.
- The required quantity of water varies from 6 - 12 jerrycans a day. One woman says she needs 20 cans a day; she has 5 cows
- Some families have the water taken by the 'watercar', bur most people cannot afford this (100-150 rial)
- All the women that were present said to boil the water before drinking. Some of them let it boil for 15-30 minutes, some 1 minute. We advised to let it boil for at least 10 minutes, to kill the germs.
- for washing vegetables they do not boil the water.
- for washing the clothes of the children they use warm water; for all the other washing they use cold water.
- Most women do not recycle the water. Even the water in which they washed the vegetables is thrown away immediately. I asked why they did not give this water to their animals or use it for other cleaning. They believe that cows need clean water, otherwise they will not give clean milk. For the donkeys it is no problem. I thought it is no problem that cows drink water with a little bit of mud in it. We exchanged views about this subject.
- Saboulah said she cannot use this (vegetable) water for the animals, because there is soap in it. She washes the vegetables with soap to kill all germs.

We told it is sufficient to wash the vegetables with clean water (boiled) or wash them in water with salt.

Salt can be a good substitute for soap. example: clean teeth with soap, use clean water with salt to for babies with a cold + if they have a clogged nose, use clean water with salt (+sugar) when there is diarrhoea, to clean the stomach.

- the jerrycans they fetch the water in are cleaned daily with water + soap
- the water is stored in bigger tanks (outside or in the kitchen)
- small tanks in the kitchens are cleaned daily.
- bigger tanks are cleaned 2-3 times a week, with water + soap
- most houses do not have a toilet, children pass stool and urine at any place; adults go to different places outside the village.
(some women wondered why we asked this question; others understood that it was because of the hygiene)
- no one has a vegetable garden, their wastewater is thrown at any place. they have no vegetable gardens because lack of water. They buy all the vegetables in Hamaam Ali.

Before we ended the meeting we asked if they had any questions. They said they understood everything well.

One woman asked what to do with her baby who had diarrhoea. More children had diarrhoea (subject for next week) We asked her what she thought the reason was for the diarrhoea. She mentioned that she was breastfeeding and she had some fever. We explained that even when a sick woman is breastfeeding, her milk does not cause a problem for the baby; the milk stays 'healthy' Only when she takes medicines it can cause problems for the child. Later it appeared that the woman gave quite a lot of ghee to the baby; this could be the reason for its diarrhoea Leikah explained how to treat it (water with salt and sugar, ricewater) and Saboulah explained that there are medicines (ORS) for it, she should go to the PH unit, where she works every other day.

besides the gathering of the remaining information some items for the next meeting are: diarrhoea (what is diarrhoea, how can you get it, how to treat it, demonstration of making salt + sugar solution, how to prevent it) germs (what are germs, how do they spread, etc.)

other questions referring to this meeting are:

- can they do anything to prevent the donkeys walking into the wadi where they fetch the water from?
- do they take their animals to a place to let them drink? it might save them some jerrycans..
- is it an idea to store some water in a jerry can instead of pouring everything in the tank? If they store water in a jerry can for 24 hours the dirt sinks to the bottom and germs get killed. The water which is stored in the tank in the kitchen usually does not last 24 hours; besides this the tap of the tank is at the bottom, so the dirt comes out with the water (??)
- talking about vegetables - it might be interesting to know how many vegetables they use and what kind of. (+ how they use the vegetables)
- do they have enough firewood to boil water?

Saboulah:

She says there might be a possibility that she can get paid by the health-office. However it is not sure. I promised her that when she does not get any salary the water/sanitation/health project is going to pay her for every afternoon she joins us.

She is a good support because she knows the women, she is from the same area, works at the PH unit and she can guarantee continuity. However the way she brings her 'message' needs some improvement. For this Leikah can serve as an example during the coming month.

The next week Saboulah promised to explain to the women of Aldzjabri why we intend to continue in Haraajim and ask them to join.

12.09.'88 second visit to Al Haraajim (leikah; hieke, saboulah, hussein)

We fetched Saboulah from Al dzjabri. On our way down to the village we met the primary health care worker Muhammed Gailaan who is working in the area. He was on his way to Hajjaan and told us he will go to Haraajim next Monday. We fetch him from Hamaam ali and he will have a meeting with the men of Haraajim while we have our meeting with the women.

At 3 pm we arrived in Haraajim at the house of fathmah. Although we asked the women to be present at three o'clock no one was there. We involved some children to collect the women without any result.

The first one arrived at 3.30 and about twenty others came between 3.45 and 4.00

They explained there was a lot of work to do (cleaning after lunch, feed cows, etc) We mentioned our reasons for starting the meeting at three instead of four, and asked them with emphasis to be there in time. All agreed...

At my question whether it was better to come in the morning they answered that it did not make any difference. (I wonder if our meetings can continue when they start the harvesting in some weeks...?)

No women from Al dzjabri were present. Saboulah had not met them. Again the women tell that they don't want to come. From their expressions I conclude that they are not on good terms with each other. We decide not to put more energy in getting them together and concentrate first on Al Haraajim.

Quite a few women joined for the first time and we asked others to explain the reason for our meetings + the discussed subjects to these women. Due to the short time we did not take a lot of time for the review. We repeated some subjects of last week later on.

Because they were eager to know what we had to tell I postponed most of the remaining questions to a next time.

We started with telling them about germs, microbes, etc. They said they had never heard about this before (-but they come here to learn about it!)

They were listening carefully and when someone was discussing something else in between, an other woman told her to shut her mouth and listen

Although at the moment there were no children with diarrhoea we decided to use this subject to make the spreading of illness through germs more clear.

- what is diarrhoea? (some people think that babies that drink from the breast have diarrhoea when their stool is softer than normal)

- what are reasons for diarrhoea?

- how can you prevent it?

- how to treat it?

- when is it dangerous and why? -when is it 'normal'?

- what is dehydration?

We discussed the subject quite extensively; did a demonstration on how to prepare the water/salt/sugar solution + showed them the preparation of ORS. We explained how important water is for the body. Our body consists of 60% water. If it loses some, we should immediately add 'new' water to prevent dehydration. But if a child is rehydrated it has to be referred to a health centre immediately. We let the women check a baby's skin + fontanel to show them how it is when normal. (to show them how it is when dehydrated, we used a scarf)

We told them that the water-salt-sugar solution does not cure the diarrhoea when there is a serious infection or when there are worms; but that it is only to prevent from dehydration. When the child does not get better they have to go to a health-unit or - centre.

Other subjects related to diarrhoea were: giving of ghee, nido, bottlefeeding, breastfeeding. None of the women was bottle feeding.

Saboulah was terrifying me by telling that it was necessary to give biscuits to babies! We discussed this.

We did not talk much about worms (subject for next week)

We emphasized the use of clean water + clean utensils, esp. with small children. The women told that for them it is no problem to boil water. There is enough fire wood and many use butagaz for cooking.

An
Other subject was eye-infections: symptoms, reason of infection, how to treat it,
(demonstration next week)

The women seemed to be interested in more meetings. One woman mentions that she finds it some times difficult to understand. She would like it a bit more 'dalla-dalla' indeed we discussed a lot in a short time. Again a good reason to tell them to be there in time next week so that we have more time. For this reason I think it is necessary to repeat some subjects next week. The women promised to think about the discussion of this afternoon and to ask more questions next week.

Programme for next week: diarrhoea + worms, amoebes, etc.

saboulah:

her knowledge about most subjects is good, but could be improved. She mentions her message in 2 minutes, without listening very well to the women.

On the other hand she mentioned some good examples from her own experience, which was understood quite well. (giving water with sugar + salt to a woman who was very 'tabana' after delivery and recovered very soon after the solution)

It would be better if we had more time to discuss all the subjects with saboulah before meeting the women and to improve her knowledge + teaching method.

In order to save time we asked saboulah to come to the new village by herself.

We meet her at her daughter's house, insh'allah next week;

Arriving Dawran at 7 pm is a bit too late...

4

19.9.88 : 3rd visit to Al Haraajim (leilah, hussein, hieke, + erica zwart,)
- erica is the new development assistant for IWP and joined us to
get a first impression of her job -

Because Hussein had some trouble getting in Dawran, we left late. We fetched Muh. Gailaan -PHC worker- from Hamaam Ali and took him to Hajjaan.

It was almost 4 O'clock when we reached the area of Haraajim and due to this we decided not to fetch Saboulah this time.

A group of women had been waiting for us since one hour; + 10 others arrived within 10 minutes. (they all wondered why Saboulah did not come)

Before we started Fatmah showed the kitchen + hamaam to erica. The watertank in the kitchen was almost empty; it looked clean. Next to it was a big thermos in which she stores boiled water for drinking and in a corner was a big bowl filled with dirty water. This she used for cleaning and it is meant to give to the donkeys afterwards. (this was because we told this in the previous meetings) Then she showed the hamaam, which is only used for washing. We had a look outside and saw the wastepipe at about 1 - 2 metres from a tree and a maize field.

The meeting started at 4.15 One of the women (Warda) explained the subjects that have been discussed last week, to the women that join for the first time. Most of the things were remembered quite good. She had a nice performance of the making of ORS (water/salt/sugar-solution)

We took a 'foel' tin and showed that 3 of these tins filled with water make 1 litre.

Wardah knew exactly how to explain about rehydration. Others had forgotten it. (at their turn, the women asked me the word for 'fontanel' in arabic which they had taught me last week; I could not answer that question and all started to laugh!! as though they were glad I forget things as well...)

As a cause of diarrhea one of the women answered: the sun. All others disagreed. The women explained that since her child goes outside and stays in the sun, it has diarrhoea, while during the time the child stayed inside the stool was normal.

No one could think of any explanation for this. I suggested it could be because of the child plays with dirt outside, eats it and so the microbes enter the body. This was understood.

(importance of the sun for health, vit D, killing of germs, was not discussed this time).

One had a question about worms (some of her children had worms) She thought the only thing to do was to take medicines. We discussed that if she does not do anything else but this the worms might come back the next day.

She then remembered everything about washing vegetables, hygiene, etc. The women tell that since last week they wash their vegetables with boiled water and salt.

(they have only vegetables on Monday -souq day in Hamaam Ali- ; during the rest of the week no vegetables are eaten)

We continued by asking if they could use the Hamaam water for other purposes. I suggested to put a bucket underneath the waste-pipe.

One woman answered this was forbidden, because this water contained the dirt of the body. (Koran) She mentioned that it is only possible when it is a little amount of water.

For washing their bodies they use one bucket of water. Others said it was a problem because of the soap this water contains. Again we mention the importance of cleaning with soap, but not necessarily with huge amounts.

- a little bit of soap is no problem for a tree or fe. cleaning a floor - Contrary to what one woman says, Leikah emphasized it is no problem to reuse the water after the washing of the body.

Next week we want to discuss the use of water as 'a medicine' when there are diseases. I asked them to think about some diseases that can be cured or prevented by the use of clean water.

After less than one hour we had to leave. Again time was too short; at the time the women get enthusiastic, the meeting ends,

Before the meeting started we asked what to do when harvest time starts. Leikah expected that during that time no one will attend the meetings.

(Muh. Gailaan will discuss this with the men too)

One woman said she can not join because of the harvesting.

Someone else mentioned it was only 2 hours a week, so it should be possible. All others agreed.

I have the feeling the women get more motivated every week (they all argue more and more when we start leaving, want us to stay overnight, or to come each afternoon, etc.) and there is a warm and friendly atmosphere, which is a good base for continuing in this village.

However if we continue at a 'low speed' like this, it will at least take 3 months to finish our programme...

4.10.'88 4th visit to Haraajim (LEIKAH; HUSSEIN, SABOULAH, HIEKE)

We had to wait a long time in Hamaam Ali, to fetch Muh Gailaan and later on in Al dzjabri it took some time before Saboulah was ready to go. On our way to Haraajim we had a look at the toilets under construction. They were nearly finished.

We arrived late in Haraajim and had a short meeting. Saboulah was tired and it was difficult to involve her.

10 women attended.

We did a review + discussed the diseases caused by lack of water or dirty water. (water as a medecin)

A demonstration on how to clean infected eyes was done.

We were invited for lunch next week and hope to be there in time.

10.10.'88 5th visit to Haraajim (PETER; HUSSEIN; LEIKAH, HIEKE, + the building contractor of the toilets.)

We had lunch altogether (arrived at 13.30)

Saboulah could not come, because she just got visitors from Taiz.

The meeting started at 15.15 Not all the women were present at that time, but we decided that fatimah should repeat the items to the women that came late r.

This was done quite well.

5 women attended and 2 came later.

Many items were repeated and we continued last week's subject. treatment of fever, diarroea, cold, eye infections, cystitis, abcesses, skinproblems, + the prevention of these diseases.

next item: what to do with water when there is more available? (hopefully next week)?? How to use it + the disposal of waste water.

They came with some good ideas. (but still don't believe the water will come soon)

They are afraid the men will not allow them to use the water for vegetable gardens. We mentioned to use waste water, which is not too dirty; more waste water will be available, when they have more water...

Also bilharzia was discussed. The women told that children were playing in a waterbasin with stagnant water. They had heard of bilharzia, but did not know if people from the area had the disease.

We mentioned the dangers + how to prevent it

Next meeting: in 2 weeks (review + finish the programme (if possible check the waterbasin mentioned above.)

31.10. '88 first meeting to Hajjaan (al mushahidha area) Leikah, Hieke, Hussein

We arrived in the village of Hajjaan around 3 o'clock.

Hajjaan has + 200 inhabitants living in 73 houses.

There is quite a big cystem where children use to swim and play in

We introduced ourselves to some men we met in the village and told them the reason of our visit. They suggested the house of the director of the school was the best place to have the meetings (muhammad abdu alwahaab algowlani) We went there and within a few minutes many men entered as well (no women...) Again we explained why we came to talk to the women. Some made arguments: their women are too busy harvesting.

Some thought it was better we come back after harvesting; others said it was no problem if we come only one afternoon and have a short meeting 1 - 1½ hours Afterwards we discussed it with the women entering the room and all agreed For this reason we continue the next month like before, having the meetings during the afternoon and not during the mornings.

This means that Leikah can continue one more month. Her support is very welcome here, because I found out that the women of Hajjaan don't speak 'my arabic'

During the last month Muh Gailaan (PHC- worker, living in Hajjaan) had discussions with the men about the water-health- sanitation project. It might be interesting to find out about what subjects he talked and what the men think about it.

Approximately 13 women gathered during the afternoon. They seemed to be a bit suspicious at first, but curious about what we had to tell. Before we started they immediately started to complain about the heavy workload they have fetching water and about the fact that they have been promised to get water during 3 years and it still is not there

We explain they cannot expect water from us, but that we want to talk to them about the use of water at the moment and how it can be improved. Today we just want to know how the watersituation is and what kind of problems they have with it. Later on we start to explain how to solve and prevent some of those problems, if possible

The place they fetch the water from is at a one hour distance from the village The watersource is dirty and they think this is a big problem for health. people walk into it with dirty shoes and donkeys are ^{sheep} walking and shitting in the water

At the moment there is less water than there used to be. They say it takes sometimes a whole afternoon to fill all the jerry cans

An other women tells it takes 2 minutes to fill a jerry can and an other one says it takes 1 hour to fill 10 cans.

They fetch the water with donkeys - 2 cans a donkey- It is mostly done by women and children. They use each others donkeys so that they don't have to walk down every day. The water is stored in tanks near the houses.

The tanks are cleaned once a week with a brush and sometimes with soap. They do never boil the water.

For washing they need 1- 2 cans a day.

for the animals they need 3 cans a day (cow)

for food and drinks they need 2 cans a day

the jerry cans are rinsed with water before they fill them

they wash their children once or twice a week (this depends on the number of children they have; in big families they wash their children less often)

they eat vegetables once a week and they say they always wash the vegetables before eating them

some say they change clothes daily; others change clothes only when they are dirty.

their children have diarrhoea regularly

most women bottlefeed or combine breast and bottle feeding

they clean the bottles daily, some boil the bottles in water - to prevent diseases

most women never reuse the water. They trough it away at different spots

most people have no hamaam, they pass stool and urine outside the village at no special place. As a reason they mention that it smells if they put it in the village.

Only a few people have a hamaam.

Some families get the water from the watercar; it costs 300 rials a week most people cannot afford this

after one hour quite a few women left because they had to feed the cow

We walked a bit through the village, had a look at some of the tanks

The donkeys just came back from the water source and all the women were busy carrying water to their houses

They promised to tell the other women of the village to join the next meeting and they seemed to be interested, although not very enthusiastic yet.

subject for next week+: what is clean water?

what to do to get it cleaner.

what are the dangers of using water which is not clean?

how do infections spread (germs etc)

etc.

7.11. '88 second visit to Hajjaan (mushahidha) Leikah, Hussein, Hieke.

Like last week we went to Hamaam Ali to fetch Muh. Gailaan, who is supposed to talk with the men of Hajjaan, while we have the meeting with the women. Also this time he was not at home. (in Dhamar)

On our way to Hajjaan we met some project members with car troubles; due to this we arrived a little later than expected. Within 10 minutes lots of women and children gathered (435 women) We allowed the older girls to stay and moved the rest out. But because of the high number of people, the meeting was a rather noisy one. (a smaller number of women might be more effective...?)

The meeting was again in the house of Muh. abdu. His wife showed us the newly built Hamaam. It looked nice and clean and was quite big. The women that joined the 1st meeting had told the other women of the village about joining the meetings. Some were not interested; they knew everything about hygiene and had other more important things to do. We heard that the women from the other villages had told them already a lot about the subjects we discussed before in the other villages. They mentioned the cleaning of watertanks and boiling of water.

There were 3 girls attending prim. school. They told that their teacher was telling about hygiene. He is beating them when their hands are not clean!

We started to explain the link between hygiene, health and water. Explained about germs, microbes and gave examples of how they spread and can cause illness. How to prevent them and how to get rid of them, etc, etc. Why do some people get problems when they drink or use contaminated water and others not?

We emphasized on boiling water for smaller children, or if not possible to boil it, we suggested to leave a jerrycan with water in the kitchen during 3 days, before using it. (this means that they have to put 1 can aside each day to make sure water will be available daily.*

The women thought it was a good suggestion, but I doubt if they are going to try it out (probably not)

We do not advise them anymore the use of Shamlan bottles (in the sun during 8 hours), because no Shamlan bottles are available in Hajjaan.

Next subject was the use of toilets, diarrhoea, worms, flies. (diarrhoea needs more discussion)

Importance of washing hands before the meals: it only has sense when the water is clean. What happens now is that before they start eating people all wash hands in the same water. It is dirty when the last persons have to wash hands. They all agreed this was not good.

We did a demonstration: 6 women/girls had to wash hands in a bowl with water. We showed how filthy the water was in the end and it was very clear the hands of the last person got dirty instead of clean.

The dirty water was taken away to the hamam and we did a next demonstration: 6 other girls had to come to wash their hands. The empty bowl was put underneath a big plastic watercontainer which is used for drinking water. The water comes out when you press on top (like a thermos).

The girls washed their hands with the (small) amount of water which comes out (3 times pressing is enough) Although the water in the bowl was very dirty, the last one could still wash her hands in clean water. At the end we used more than half of the amount of water. It was showed to everyone.

This demonstration seemed to be a succes; the girls were very glad they could participate and it was big fun!

There was a question about how to treat eyeinfections. It was explained, but no time was left for a demonstration. (next time)

They did not want us to leave so soon and wanted more 'darasa'

* they don't clean their jerrycans - for this purpose we told the importance of cleaning these cans.

When I discussed the meeting later on with Leikah, she thought the demonstration was a good idea, but of little use, because within some time more water will be available so why stress on the use of less water instead of more? On our way back we had a look at the installation of the waterpump. Here Leikah heard that the water from this place will maybe last 15- 20 years. She suddenly understood why it is so important that people do not waste water unnecessarily: "If people use a lot more water than necessary, it will last only half as long..."

Items for next meeting: eyeinfections + other diseases caused by water or lack of water.
diarrhoea , prevention, treatment.

14.11.'88 : Third visit to Haajjaan - al Mushahidha area (leilah, gadiedzja, hussein, hieke.)

This afternoon gadiedzja hussein joined us for the first time. Gadiedzja is a TBA from Dawran , who has some experience in giving health-education to women groups. Since it is not possible for leikah to join me a whole day, gadiedzja will be involved in the further activities. The first weeks she will join together with leikah, to get some ideas and experiences.

We fetched muhammed gailaan from Hamaam ali, together with his sister, children, chickens, etc. etc. which as usual took quite some time.

Due to this we arrived late at Hajjaan, 15.30.

We started to ask about the subjects that had been discussed last week, although only a few women were present that time. Everyone remembered quite well.

I asked 4 women whether they were washing hands like they did before or they tried it another way.

2 of them did it like they had always done, but they told to fetch clean water as soon it got dirty. One tried a few times the 'thermos-method', and the other one told they washed hands underneath the tap of the tank.

It is as usual difficult to find out whether or not they really do follow our examples. It would be very surprising if they change their habits immediately after we tell them..!! I think it is quite understandable they don't.

We discussed the reason why it is so important not to waste water unnecessarily. (see last week) + the reuse of water. About the reuse of water they have the same ideas like in other villages : no contaminated water to cows, no reuse of water, because of soap, etc. It was discussed like in the other villages.

As soon as more women entered, we decided to start with the new subjects, because lack of time. There were not as many women as last week; we saw a lot of them working on the fields. (they say that hopefully the harveting will be finished next week).

+ 13 women gathered + quite a lot of older girls. We discussed the diseases related to water (lack of water or contaminated water), how to prevent those, how to cure those. diarrhoea, fever, common colds, burns, worms, skin infections, cystitis, + use of salt water to clean some woundinfections)

demonstrations were done on bottlefeeding, cleaning of bottles, signs for dehydration, how to prepare ORS + water-salt-sugar solution and how to treat eyeinfections with boiled water.

During demonstration there is often more attention than usual; for this reason I think demonstrations are usefull. They remember things better after they have seen and done it -and it gives them good reasons for laughing, which is also important..!

For next week it is important to take enough time to repeat some of the discussed items, because it was quite a full programme. (in one hour only !)

Gadiedzja was involved very well and explained things quite clearly.

On our way back to Hamaam ali we had a short discussion with Muh. Gailaan, he wants us to talk about the necessity of vaccinations, which ofcourse is important, but for us there are some other priorities. Next monday we will have lunch together with Muhammed and discuss his + our programme in the villages.

(I wonder if he got in contact with the teacher of the pram school about giving health-education)

We had to fetch Muhammed saleh (supervisor PHCW training from Hamaam ali HC) and due to this it was almost 7 O'clock before we reached Dawran anis.

21.11.'88 4th visit to Hajjaan, Erica, Leikah, Gadiedzjah, Hieke, Hussein.

The Dawran team first went to Hamaam Ali, Erica and Hussein joined later on to Hajjaan.

We had lunch at the house of Muhammed Gailaan together with him and his family. We discussed the subjects of health-education related to water/sanitation, to find out if we are talking about the same things in Hajjaan. It is important that the men + women get the same messages.

Muh. says he talks about vaccinations, but also he stresses the importance of hygiene, boiling of water, bathing of children (however his own baby has black fingernails...) He himself is building a hamaam to give the right example.

For the waste water disposal he says he advises the men to make pipes to lead it to the right place.

He gives the impression that he is giving the most perfect health-education, but I seriously doubt whether he really does...

Until now he had no contact with the teacher; he thinks that the teacher pays a lot of attention on hygiene, etc.

We stimulated him to go and visit the school + to inspect the toilets.

Around 3 o'clock we arrived in Hajjaan. Since one day the water is in the village!! The women seemed to be really relaxed; the harvest is finished, no water carrying anymore!

We had a look at the filled tanks near and in the houses. The water did not look very clean, a thin layer of dirt was on top of the water. Water was dripping from the tanks and it was wet around the tank....

In the house of Muh. abdu a second lunch was served!

Erica demonstrated handwashing, first without soap and after that she washed her hands another time, with soap and showed the women how dirty her hands still were after washing without soap.

After we washed our hands, the water was thrown immediately out of the window.

We started to discuss this. They said trees + plants were growing there.

Together with the women we went to check this and we just saw a lot of waste next to the house. The dangers of this were again explained.

We continued to emphasise on the disposal of waste and wastewater.

Within a short time the big room was crowded and many women joined for the first time. Many children were sent out several times, but managed to get in at the same time. It was a noisy afternoon; The women kept on saying how 'relaxed' they were and how pleased with the water.

We -however were not so relaxed; we did the discussion in 2 groups; Leikah and Gadiedzja did one part and we did the other half. We asked one woman to explain the items that have been discussed so far, she tried, but could not get any attention of the rest.

Any time we asked them a question they explained they know now everything about hygiene, since there is water, there is no problem left..!

At the question what they plan to do now with the spare time, they all answer that they are going to use the extra time for cleaning.

Before we left we all got a big plastic bag filled with raisins, sweets and popcorn and we were invited for lunch next week

28.11.'88 5th visit to Hajjaan, Erica, Nafiesah, Leikah, Gadiedzjah, Hieke +
Muhammed(driver) in a new projectcar.!!!

Nafiesah is probably going to be the counterpart of Erica and is joining her today for the first time.

We left Dawran at 12.00 and arrived in Hajjaan a little after 2.00 pm.

Muhammed went to talk to the teacher + Ali Mata'ana to find out how the Hamaams are functioning + if they give the health-education.

After we met the women, we had a look around the houses together with some of them, to have a look at the tanks, taps, etc.

The water in the tanks does not look clean; there is a thin layer of dirt (like grease) on top. Almost all the taps at the bottom of the tanks were leaking, and it was wet and dirty underneath and around the tanks.

We showed it to all the women. They say they will discuss it with their husbands to get it repaired. Tins and bowls were put underneath the taps to collect the water.

Most of the tanks had dirt + dust on top (this is falling down from the walls)

We showed how easily the dirt is blown into the tank and advised the women to clean the tanks also on top. Some of the lids on top of the tanks were not properly closed or not well connected with the tank. People use the taps of the tanks, but also scoop the water out with tins, (which easily contaminates the water.)

They say they do still boil the water, before drinking it.

The rubber pipes, by which the tanks are filled were laying on the ground (or on top of the dusty tanks) they don't look clean. We showed how the dirt got in the opening of the pipe and advised them to hang these pipes next to the taps on the wall.

This was done immediately.

We went to see + 5 different houses and discovered a lot of dirt, people's- + animalshit everywhere; children were walking in it with their bare feet.

Next to the newly built hamaam someone had passed stool, between the tomato plants.!!! we made a dramatic scene of it; showed it to the children and women and in the meanwhile it was quickly thrown over the wall !!

I did the demonstration of how to bury and cover the faeces; a woman reacted 'we're not like cats !!!'

We wondered how to get rid of the dirty layer on top of the water in the tanks and tried to scoop it away with a bowl. Before we could even ask the women what she should do with the water, it was thrown next to the tank. A few metres further were trees growing....

Another example of how it should not be was a dirty stream with hamaamwater which was streaming downwards. We asked them what kind of solution should be found and they answered: a pipe into the ground.

Why was this not done before? They answered that they don't see the importance ('please, go and tell them..')

We showed ^{it to} the only man around, and discussed it - asked him if he could discuss it with the other men.

In the meanwhile children threw a heap of stones underneath the pipe to prevent the water and dirt from streaming down, but this is not a real solution.

The next house we went to had a pipe into the ground.

On our way to the house of Ali Mata'ana where we should have the lunch, we walked through a lot of rubbish and asked why it was there... 'if we clean it, others make it dirty again'

It is clear that although we had 4 meetings in Hajjaan, and most women know how it should be, it is not at all put in practice (yet)!!?

Probably it needs a long time before people start changing habits.

Before the lunch we had our handwash demonstration (shampoo instead of soap)

During the lunch -we tried grasshoppers!- we discussed the problems we had seen with the + 12 women.

It seems that the PHCW Ali Mata'ana does not discuss the waste(water) problem in his own village, although he discusses it in other villages. (hajjaan is the most dirty village of the area.)

The women think the water is a big luxury and are very happy with it; it is a lot cleaner than last week.

Still they do not have any spare time; they say they are busy washing and cleaning. This takes a lot of time, while before they did not do this so often. ('how can we ever rest? we are always busy..!')

Every 3 days the water goes to their village; this is enough. Some people have bigger tanks than others have; they use each other's tanks if their own tank is empty. This is how they did it before as well.

They have heard that in Haraajjim there are problems, because people there don't get enough water. People from Aldzjabri -halfway the pipeline- take extra water during the day it is meant for Haraajjim.

Another question was about the finances.

The sjeich from Aldzjabri asks 3000 rial for diesel (+ 3000 rial for the watchman??) + on top of this 5 - 10 rial per person a month, which they think is not fair.

We promise to discuss this with the project.

Another problem we saw on the way, is that there are a lot of leaks at the pipe-connections; in some cases water was steaming at the road.

It was a very instructive afternoon; it gave us a lot of information about the present situation, and hopefully we could give some useful information to the villagers as well. Quite a large audience was present and many women were involved; the children were not as disturbing as during the meetings in the mafratsj. It was good to have so many 'good' examples. This way of 'outside-education' could be used more often.

We ended the session of meetings, but plan to come back next month (or more often), to see if there are any other problems and to check whether the situation has improved or not.

Muhammed had met the teacher and PHCW and had a discussion with them. The hammaams seem to function well and to be clean, health education is given by both. However Muhammed did not go up to check the real situation. (next time)

13.02.'89 : first return visit to Mushahidha (Al Anisie + Hajjaan)
Nafiesah, Erica, Leikah, Hieke, and A-M Steeman, the former deputy-
director of SNV joined us to get an impression of the project.

We planned to go to Al Anisie and on our way we would like to visit the school + the unit
check whether the toilets are used,

The idea was to ask muhammed gailaan, the PH-worker, to join us, which might give us
an impression of how he performs his health-education tasks.

However, Muh. Gailaan was not in the village. We had a short chat to Thumah, the sudanese
midwife at the health-centre. She told us she had visited the area the day before
and joined a women's meeting. According to her there were no problems.

We reached the school and the PH-unit; both were closed. (school-holiday) The taps
near the toilets were not working.

After a few minutes waiting, ali Mata'ana, the other PH-worker, showed up.
He told us it is not very busy in the unit, although every day some people come to
visit the unit. He says the unit is open daily.*

The toilets near the unit are clean and look rather unused. The taps are working.
No buckets inside, just a small tin. Children are not allowed to enter, because they
make a mess inside (throwing stones in the hole, etc.)

For this reason also the toilets next to the school are not used, we heard later in the
village. Muhammed tells that the school is not used during wintertime because of the
cold. This is why there is no water in the tank on top.

They have plans to build a new school a few hundred meters away from the old one!!
According to Muhammed the money to build the school has been promised (?)

Together with Muhammed we arrived in Al Anisie around 11 pm.

Before we join the TBA Saboulah to her new house, we talk with some men and women
in the village. The information they give us varies; some people say there are no
problems with the water, others deny this. One man complains about the watchman
he says the money they have to pay goes into his pocket. It is too expensive.

The tank next to one of the houses in empty, they say. -but when we check it, it
seems to be half full- (?)

There are a lot of empty tanks; after 2 days they are going to be filled up again.
On wednesday the water is going to this village.

But others tell that it is irregular, sometimes it takes 9 or 10 days before the
water is coming. It is surprising that still a lot of tanks contain quite a lot of
water, while others are empty. They explain us that this is because there is always
some water left in the pipes. Ali mata'ana explains that because this village is
situated lower, they have more water. For this reason there seem to be more problems
in Harraajim, which is on a higher altitude.

Most of the women say they have no problems with the water some others tell that they
sometimes still have to go to the wadi, because the water in the tank is not sufficient
Others deny this.

We continue the discussion in Saboulah's house, together with some of the men + women.
They again have different opinions about the use of the water. Men complain that
their wives don't wash and clean enough. It appears that they do not wash or clean
more now than they did before. The only advantage is that they don't have to carry
water and fetch it from the wadi. + that the water is cleaner.
They feel a lot more relaxed now.

Saboulah says that everything is going alright. She is giving health-education like
we did before, talks about hygiene, giving waste water to the trees and vegetables.
But other women correct her, by telling that they have no trees, vegetables, tomatoes.
Saboulah thinks that there is less diarrhoea than there was before.

We have the strong feeling that saboulah just gives the answers that we like to hear,
but at least she knows how it should be done...

By walking around the village we are surprised to see that here are no leaking taps
like in other villages and the area around the watertank is most of the time clean.
(of course there are a few empty tanks, so this might be the reason for no leaking
taps and water around the tanks)

Some people have bigger tanks than others; this depend on the nr. of people living in
the house. There are about 4 families, that are too poor to buy a tank; in these cases
they may use the water from other peoples' tanks. Sharing water does not seem to be
a problem.

The TBA Saboulah stopped working in the village

Most of the houses have waste-pipes. We saw 2 houses without, where the waste water was steaming downwards. They told that they are going to change this soon. The tanks are cleaned before they are filled. If there is any water left in it, this is given to the animals or to trees + tomatoeplants. (tomatoes, and herbs are grown on top of the houses in ghee-tins.)

We are invited for lunch in Hajjaan at the house of Ali Mata'ana Ali +hussein (?) -who is responsible for the watersupply to the different villages say that there are no problems in Hajjaan. There is no shortage of water.

'Sharing' water, when some people run out gives no problem.

However when we walk around the village, we find out that almost everyone is without water. It should have come today, but it is unclear why this did not happen.

Someone suggests that it is because the problems with Haraajim, which is situated too high (?), For this reason there is air in the pipes (?)

We follow a woman who is trying to get water without succes. Finally she finds a house with 2 tanks that are still half full (?) It takes quite some time before the owner of the tanks is willing to give her some water

Later in the afternoon all tanks are filled.

We have a women's meeting in the house of the PH worker with a surprising number of attendants.

They seem to be content with the water, esp. because their workload is less and the water is cleaner

In the beginning they had water twice a week, while now once a week. This was decided by Hussein, who thinks that they use too much and the water will not last very long.

Some of the women think this is a good decision, while others would prefer to have water twice a week. (In Hajjaan no one complains about the watchman or about Hussein) For some people the amount of 10 rial per person is too much, for others it is no problem.

An interesting thing to mention is that since the waterproject they use less water, instead of more. As a reason for this they mention that before the watercar came twice a week, so they were always sure that they had water, while now they are never sure if the water is going to last until the new supply is coming.

(this is probably true for the people that can afford to pay for the watercar, but it might be different for the people that had to fetch it from the wadi (?)) Like before they wash their children once or twice a week. Hands are washed with water and soap before the meals by more people now. (?)

At the moment there are a lot of infected eyes (probably because of the dirty hamaams, during the 'hamaam-season) Diarrhea: every now and then. They know exactly how to treat these problems and how to prevent it. Especially the wife of the PH-worker knows a lot! She also explains exactly how diseases spread.

We compliment them also because the village is a lot cleaner than before!

To solve some remaining problems, such as a shortage of water, we suggest that the waterproject discusses some items with the men. It might be interesting to know why the information we got varies so much

In two weeks we plan to visit the other villages in the Mushahidha area to find out about the wateruse, ^{discuss} waste water disposal and other items

It is still difficult to find out if our health-educationmeetings did have any success. We certainly need some more items for evaluation.

How many return visits are necessary? Or is supervision of the PH workers sufficient

?????

27.02.89: second return visit to Al Mushahidha, Hussein, Nafisah, Erica, Leikah, Hieks.

First we went to the HC to see if Muh. Ghailaan (PHCW) could join us. He went with some visitors to Aldzjoemah. We met Aminah, the FPHCW-trainee, in the HC and suggested her to come with us; she did not want to come, because she was working in the HC at the moment.

On our way we stopped at the PH-unit; no one was there. One of the waterpipes ^{next to the toilet} was leaking terribly - due to a broken tap - so it looked more like a shower instead of a toilet. As Hussein noticed, this could not have been done by children. (too high) The toilet was open - although nobody was there -, this time a bucket was inside.

We continued to Al Anisie and met Ali Nata'ana (PHCW) on the way down. He said he was on his way to the unit to give injections to some people. However he decided to join us immediately, so no injections were given. (or it was an excuse...?)

As Erica wanted to check whether or not the broken pipes in the new village of Al Anisie had been repaired, we stopped in this village. The pipes were repaired. Women were busy washing clothes and we had a few chats. In front of 2 houses we saw water streaming away. The first woman we asked how it was possible, said it was because children had opened the tap. The next one was because they had forgotten to close the tap. In this village there is water almost every day. Today they had all their tanks filled and collected some extra water in buckets, etc.

We tried to explain that if they forget to close taps, other villages might have shortage of water. Besides this the village gets very muddy and dirty.

We suggested them to plant some trees or tomatoes next to the tanks, so in case the extra water floats away it gets to the trees.

Most waste water is thrown downhill; some women use it to clean the hamaams.

I asked one woman what she thought of giving the waste water to trees and to grow some vegetables. She seemed interested, but one of the men was discouraging the idea immediately. (does not work out well)

We continued to the old village downhill and decided to change our programme a bit, because of the time. Instead of going to Aldzjabri we visited Al Ur. This village has not been visited yet. Saboulah (TBA) went there to give health-education and had discussions with the women about the water/sanitation subjects. (the same in Jurhum)

Before we went, we had a look at some areas, (Al Anisie), which had been cleaned very well. The dirty spots we had seen 2 weeks ago were now dry and clean.

They had made several pits for the waste water and filled them with stones. In some cases rubber pipes were connected to the pipes to lead the waste water into the pit.

We had the feeling that some of the pits could have been a bit deeper, but at least the effort was fantastic. The people seemed to be really proud of their village now and wanted to show us everything. We also had to enter many houses to see how clean their kitchens and rooms were. Of course we showed a lot of enthusiasm, but had the slight feeling they had cleaned everything so very well because of us...

Erica took a lot of pictures which we might use as material to show these examples to other people.

Saboulah decided to join us to Al Ur.

Also this village looked extremely clean! At least we knew that this was not done especially for us, because we came unexpectedly. Clean water tanks, some with plastic bags underneath the lids, beautiful gardens with flowers, all kinds of herbs, tomatoes, vegetables, fruit trees (apple, peach, papaya), peppers, etc. The 'streets' were very clean; no waste at all! No dirty spots with streaming water, but good connections to lead the waste water into the gardens or into the earth.

We visited a woman who just had delivered (Saboulah had done the delivery).

I tried to find out what kind of health-education Saboulah had been giving to these people. The woman mentioned immediately all items of: 'intithafa', importance of washing, cleaning, hygiene, etc. I asked a few questions to find out if she really had understood why this was so important and she gave the right answers. To solve the waste water problem she mentioned to dig pits or to give the water to the trees, as long it does not contain big loads of soap. The woman seemed to be very enthusiastic

about Saboulah.

They get water once a week and say this is sufficient. The women seem very relaxed and kept on telling that before they had to walk for 2 hours to fetch water.

When I asked about the health of their children they answered that at the moment there is less diarrhoea than there was before. They seemed to see the link between the use of more and cleaner water and illness.

We saw several women making baskets and asked if they had always been doing this. They answered that they do it since they get the water from the project, because before they did not have the time to do it.

The nice and relaxed atmosphere is to be felt in the whole village and everyone is proud to show us his house, watertank, garden, etc.

I asked an old man if this village has always been so clean. Certainly not!! was the answer. This is only after they got water in the village.

Before we left women came to us to complain about the fact that Saboulah did not get any salary. Men started to complain about the man who owns the land of the waterpump. He made a stone wall to prevent the diesel-car from entering the field. He explained that we are not the ones to solve this problem, which was understood well.

Before we had lunch at Saboulah's we gathered with a group of men (also Hussein Ali Mata'ana were there) and heard their discussion about the problems they have with the one who is responsible for the collecting of the money. It seems that he has put a lot of money in his own pocket. Now some people refuse to pay the 10 rials. They want to organise a big meeting to find a solution for this problem.

We have lunch together. Before we had to make some fuss about the handwashing (one bowl with water, no soap, etc.)

After lunch we went to Haraajim. Tried to convince Ali Mata'ana of the importance to join us, but he had other 'important' things to do and promised to go another day and to tell us about his impressions.

In Haraajim we met at Fathma and had tea in her house, waiting for the other women to come. This took quite some time and we decided to start our 'villagewalk' and ask the women to join the meeting later on.

Behind Fathma's house was waste water streaming from the hamaam-pipe. We discussed this problem. They promise to change it.

As we noticed before the people of this village don't want to use their waste water for trees or vegetables. However not a lot of dirty spots are found. Some have made pits, or pipes into the earth.

Most people have taps in the kitchen. We had heard before in other villages that they have problems with the water here. But it seems that people are quite satisfied.

One family has a tank on top of the house; they have problems to get it there. They say the watersupply is sufficient. (tanks are filled on Friday)

The women wash their children and clean their houses more often than they did before and use more water than they did before.

On our village walk we talked to many women and children. Because it was getting later and we got tired of so many village visits, we decided to leave and discuss some remaining items during lunch at Fathma's house, in 2 weeks. (+ visits to Al dzjabri and Jurhna)

We could not leave Haraajim without having admired the new born baby of Warda; left around 4.15

* - also in Haraajim we saw women making baskets, which they had not done before so very much.

Remark Erica :- All houses have house connections; some are good solid ones with a connection into the water tank, others are just thin pipes with a tap leading to above the lid of the tank. Dirt can come into the tank when it is filled. The thin pipe without any support will break easily.

- In Al Ur we saw an open drum with water for cows and for cleaning. We found mosquito eggs on the water surface but no larvae in the water. We don't know if there is malaria in the village. We advised to cover the drum. The lady who owned that drum reassured us: "Don't be afraid, no person will drink this water, we have enough clean water now. The dirt comes out of the trees." Probably that water will not stand there for longer than a week, so we were not too concerned and we didn't want to temper her joy.

Erica Zwart

Al Miqdahah 4 dec. 1983 Abdul Salam, Nafisa, Erica.

Objectives for our visit: Getting to know the village and the project

Giving a small introduction of the idea that the project is helping them in order to improve the health situation and that it therefore is very important to communicate with the women.

Getting an impression of the water- and sanitation-situation now, so that we will be able to notice changes after the project has been finished, if there will be any.

The village has not a healthcare unit of its own. Water is fetched from a source at a walking distance of almost an hour. Cement and pipes had been delivered for the construction of the water system. We stayed in the village from 8.30 till 11.30.

When we arrived the men were busy with the preparations for building the water reservoir. They came with us to drink tea and eat a little. Abdul Salam explained the why of our visit and asked if the women could come to talk with Nafisa and me, and if we could afterwards visit their houses. The men said that the women couldn't (didn't want) to come because of the work they had to do. I thought the objections came from the men themselves. (I had not had the intention to gather the women). We could go to the different houses to ask what we wanted to know. A few men went with us to guide us (and to hear what was said). We talked with the (older) women who were feeding the cows and a few times with some women who came to the door.

They told us that they had no problems at all, except that the water source was so far away. The water itself was clear good drinking water. Almost every house had a water tank, which was clean, both inside and outside. Every house had a hamam, and the wastewater out of that hamam was led away via pipes. We didn't see any wastewater problem and the women assured us that there will not be one after the project. The places around the houses looked clean. The children we saw were clean and looked healthy.

The women washed the clothes near the source, but prefer to do it at home if they had enough water.

We saw some very nice clean, good-ventilated **stabels**. Cowdung is used for the tanoor.

Just two houses had very small gardens. With more water there will be more, the women said.

The village as a whole looked rather prosperous.

I wonder if there have been given some health education.

The more quantitative answers on our questions are to be seen in the table below. The men told Abdul Salam that the women gave us a smaller figure of the amount of cattle out of fear that they will have to pay for each head. I don't know if we can rely on the **water** figures.

WWS 507/1471K
received March 1989.

house no.	1	2	3	4	5	6	7	8	9	10	11	12	13
women	5	2	4	2	1	5	2	4	1	3	1	2	4
men	4	2	3	2	1	5	2	3	1	3	1	2	4
children	15	6	7	8	6	15	9	6	6	7	3	6	12
youngest	8 mth	1y	7m	1.5y	6m	1y	6m	2y	9m	5m	1y	3m	?
eldest	12y	?	9y	10y	8y	?	7y	?	8y	?	?	7y	?
cows	2	2	2	1	1	3	2	2	1	2	3*	2	2
camel chicken	1 cam	/	4	/	/	5	4	/	/	/	?	/	/
donkeys	2	2	2	3	1	4	1	2	2	1	?	1	2
sheep	40	60	100	30	40	60	30	40	40	?	?	30	30
A	3	8	6	?	?	?	9	7	3	?	4	5	5 or 6
B	6d	2d	2k	?	?	?	2d	2d	3k	?	3k	2d	2d+1k
water q/day	510 l	320	480	400	?	?	360	280	360	?	480	200	400
do they used?	no	yes	yes	yes	?	?	yes	yes	yes	?	?	yes	yes
car used?	1/4d	no	no	no	?	1/2d	no	no	no	yes	no	no	no

d=dubba=20liter

k=kirba=2 dubba=40liter

tank=30dubba=600liter Costs if this amount is delivered by car 70 reyal

A=how many times a day is water fetched?

B=how much water each time?

* 1 cow + 1 bull + 1 calf

10-1-1989: First visit to Al Makdahah, Abdul Salaam, Erica, Nafisah, Sylvia.

This first visit is meant as an introduction to explain to the women the purpose of our visits, to gather an impression of the village and some more information about the work of the women.

On our way to the village we passed the school, which is situated at about 5-10 minutes walking distance from the village.

We stopped to talk to the teacher and to gather some information about the school and the students. There is only one syrian teacher. There are six classes, but only 2 classrooms. The first 5 classes are taught in the morning whereas the 6th class is taught in the afternoon. There are 78 students, but only one girl is attending the school. The teacher is very keen on teaching about hygiene and he checks all pupils in the morning to see if they are clean. He appears to be very interested in the health education in the school and we arranged to see him after two weeks to discuss a program for the h.e. in the school.

After this we went up to the village to talk to the women. On our way we stopped to talk to Abdul Ghani the project technician who is supervising the work of the villagers. One of the men came with us to show us his house where we could go to meet the women.

On arrival there, there were some women feeding the cows. We had a little chat and one of the women showed us the watertank which looked very clean on the inside. After this we entered the house where nobody was present. After 10-15 minutes some women and children entered the room. We had a general conversation in which we tried to gather some information about the use of the water.

They have to get the water from a spring at 1 our walking distance from the village, usually with the use of donkeys. There is very little waste water and this is used to prepare the cowdung for use in the tenur. Every house has got a hole where the waste water and dung is collected, and the dung cakes are made 3-4 times a week.

There is very little diarrhoea in the village but a lot of children have got a cough, probably because of the cold weather. Eye infections are very common according to the women, but none of the children present had dirty eyes.

Some waste was visible in the village like plastic bags and tins, the women told us that they throw it far away which means at the back of the house down the mountain. We had a look out of the window and saw the waste which was not too much.

There are no trained phc workers or tba's in the village. If they need a doctor they will go to the H.C. in Maris or in Yarim.

Women left fairly quickly as they had to prepare lunch. We made an appointment for next week tuesday. Most women are very busy in the morning and we decided to talk to the women at 2 o'clock as that appears to be the best time. Some men joined us after most women had left and they invited us for lunch next week.

Before we left we had a look at one of the holes used for preparing the dung cakes. The hole was about 1 meter deep and at the bottom was a little water and dung. This could be a possible source of illness, but there were no flies present. This might be a point for discussion in a later meeting.

17-1-1989: Second visit to Al Maqdahah, Erica, Nafiesah, Sylvia.

We arrived in the village at 12 o'clock and after having a cup of tea went to the place where the women go for washing their clothes. It is at a natural spring at about an hour walking distance from the village. Women go there \pm 1-3 times a week.

By washing their clothes here their is no problem with waste water. After the water project is finished the women will wash their clothes near the houses, which might cause waste water problems. This needs to be discussed with the women and to be assessed after the project is finished.

After visiting this beautiful spot we returned to the village where we had lunch with the men. After lunch we went to the women who had collected in a house where there was a woman who delivered a week ago.

First we introduced ourselves and had a little general talk with the women. We started our talk with asking the women if they know how somebody gets ill. They said they didn't know, if somebody is ill they go to a doctor. We tried to formulate our question in another way but this wasn't succesful either. We started explaining about "microbaat" which they hadn't heard of, but one of the women realised it is the same as "tharathiem". They learned about germs from the children who attended school. Most of the girls went to school for one year when the wife of the syrian teacher was teaching as well.

We explained that these germs are very small so we cannot see them, but that they can make us ill. As I had a cold at the time I told the women that that is caused by the germs. Germs are mainly present in dirty places, and when children are playing outside they might put a dirty hand in their mouth and get diarrhoea.

The women explained that they always wash their children when they come inside. We stressed the importance of this and said that it is very good to do so, and that is why their children are not so often ill as in most other villages.

We explained that these germs are also present on the hands of all people and therefore it is important to wash your hands well before eating, cooking and after going to the toilet. The women all said they wash their hands with soap before eating, but in the house where we had lunch we had to ask for the soap.

We asked one older girl if she could show us how she washes her hands using real water. The girl put a little bit of clean water in a bowl and washed her hands 4 times using soap. While she was washing her hands she also cleaned her nails. After washing she cleaned her hands another time in a bowl with clean water. If there are more people they all use clean water to wash their hands. The water is thrown in the hole they use for making dung-cakes. We praised the way she is washing her hands and asked her why she does it this way before cooking? She could explain very well how germs are transferred from the hands onto the food and to other people. We explained it again to the other women how important it is to wash their hands with soap so the germs will get killed.

We asked the women if they always use the toilets, as well for urinating and defecating. They all started to laugh at my stupid question and I explained that in some villages they only use the "hammaam" for washing. Thereby we said that we saw human faeces in the village (not a lot). The faeces are from little children who do not use the "hammaam". The women carry these faeces out of the village as it attracts flies who are biting.

Next meeting we will talk about diarrhoea, causes and treatment. We made an appointment for the following week wednesday, and one of the women invited us to her house.

25-1-1989: 3rd visit to Al Magdahah, Erica, Nafiesah, Sylvia.

On arrival in the village we first had a look at the toilets near the school. This seems to progress well. We passed the watertank where they were busy with the work. The teacher was present as well and we made an appointment with him about the visit to the school in two weeks time. The teacher will try to arrange that the girls of the village can attend as well that day.

As we were too early for the women we had to have dinner in the village. Before the meal they gave us soap to wash our hands. This time the women joined in the meal, and the mother washed the hands of a 5 year old before the meal. The first time I have seen this happening.

After the meal we went to a house where a woman delivered 1 week ago. She looked very well, although it is her 6th child. There were about 10 -15 women present and three times as many children. This made it very noisy in the beginning, but on our request most of the children left. We used this opportunity to invite the girls for the session in the school in two weeks time. First we asked the women present what we discussed last week. Most women link germs with cleaning, but I doubt that they realise that these are living things. We repeated our information about germs again also because there were a lot of women who were not present last time. The newly delivered woman was very keen to learn about these things, and was very good in repeating our message for the other women.

We used the health education material Hieke developed, which was very successful. It depicts a story about a man who has diarrhoea and does not use a toilet, but does it outside. A chicken walks through the stool, and goes straight inside the house where a child is playing. From this the little boy gets stomach ache and starts crying. The mother comforts the child and so the stool is brought onto her hands. Now the mother starts preparing the meal and so bringing the stool onto the food, which is eaten by the rest of the family. The result of this is a whole family with diarrhoea. One of the women retold the story. The way she retold it it was clear that especially the pictures which showed the woman making the bread and the family getting ill from this impressed her. After she retold the story we went back to the beginning telling the women what could have been done to prevent the family from becoming ill.

- The man should have used a toilet, but if there are no toilets he should have buried the stool and put a stone on top to prevent the chicken to walk through it.

- If the mother washes her child regularly the change of transmitting dirt becomes less.

- The mother should have washed her hands with soap before starting the cooking, so all germs on her hands get killed.

If the mother does this the family can eat the food without getting ill. Nevertheless Fathma the older daughter got diarrhoea because she had dirty nails and hands and did not wash them before the meal, so she has been eating the dirt from her hands as well. This way the importance of washing hands before the meal

and cutting nails regularly was stressed.

We talked about these things a little bit longer to check if it was understood. The women kept thanking us all the time, and seem to understand the pictures used well.

Before leaving we made an appointment with the women for two weeks time. I am sorry that I cannot attend, but I hope to be back soon.

Erica Zwart

Al Miqdahah 28 febr. 1989 :Nafisa ,Erica.

- Objectives:-giving h.e. at the school about the danger of human faeces and how to get rid of it in a proper way
- getting to know if the teacher explained the use of the new toilets
 - meeting the women to repeat the items discussed during the last session and to do the handwashing demonstration with and without soap.

School:We arrived at the school at 11.30. The teacher was explaining the pupils the why and the how of the use of the new toilets at the toiletside. (the only girl at school was not present.)Because the water is not available yet, the toilets are not yet used."Faeces are dangerous you have to go far from the house and you have to cover them. In the new toilets they go via a pipe to a pit behind a waterlock. The Dutch spend a lot of money, therefore we have to keep them clean."

After that Nafisa explained one of the ways from shit to mouth with the help of the flannelgraphs of Hieke. The children liked it very much and even one of the labourers, working at the toilets , came to look at the pictures. One of the pupils repeated the story perfectly. The children told us that they always far away to defaecate and cover their dirt with earth. they didn't put a stone on it. Afterwards they wash their hands with soap(really? it is far away and there is scarcity of water. Yes, they did it always!) and they did the same before eating. How to gap the bridge between knowing and doing?

Next time we will do the demonstration of handwashing and talk a little bit more about diarrhea.

Before the lunch the teacher washed his hands the way it was showed on one of the pictures and he explained in the few words to the men around why it was good to do it that way.

We saw more garbage in the village then the last time we were there.

We met the women in the house waere they had a teaparty with the mother of a 5 days old baby. All asked us where Sylvia was. Except for one older lady, they could not tell us about what Sylvia talked with them the other time , but with the pictures it came back.

Nafisa asked : If there are no chicken, is there an other way from shit to mouth? This was not clearly understood, but with a little bit of help the flies were mentioned.

They laughed a lot at the handwashing demonstration. "We always wash our hands with soap, even cleaning our nails, especially when we have worked with the cows or the cowdung. The men don't use soap. "

How can we reach the men in a better way?

There were an awfull lot of flies in the room, although it was rather clean. The women feed their cows in the doorway and the first floor

is used as stable.

Next time we will talk about : what do you do if your child has diarrhea.
Asked for it at that moment, the women told us that they go to
an healthcenter. One lady told that she gave her child Nidomilk.
The women liked us to come next week again.

We left at 4.15.

I want to make Nafisa a big compliment. She did it the first
time on her own and she did it in a very pleasant way.

It is good to talk quite detailed before the meetings about the
content. Confronted with questions about other items she wants
still to give in a short way all her knowledge ^{to help the people}. With the help
of flannel board and demonstration she does a really good job.

received March 1989

Erica Zwart

Wathan: first visit 11-12-1988 (Abdul Salam, Nafisa, Erica).

objectives:-to get an impression of the water and hygiene situation

-to see the project

-the delivery of the new toilets.

-healthcare-unit: The p.h.c.w. didn't get a lot of patients; there are no big worm infections, nor a lot of diarrhoea. He tried to give some health education to the people who came to the unit, but the people didn't believe him and some even got angry. He didn't go to the schools.

-water situation: Drinkingwater is transported by women, donkeys and cars from the borehole. For other purposes there are other water sources.

The place where the cars are filled is very muddy.

A lot of houses have water tanks on the roof.

-wastewater: We didn't see any wastewater, except on the building side.

The men used water to mix the cement from a tank with an heavily leaking tap. Chickens were walking through the mud and children played in it. When we asked if the people knew that a permanent muddy place could cause health problems, they laughed. It seems to me, that they know the story, but don't believe it.

Most of the women washed their clothes at the source, some at home.

-garbage: There was a lot of garbage everywhere. A man was cleaning his yard and said that he should throw the garbage out of it far away.

I think it is better to advise to burn the garbage between some stones near the house.

-The new toilets were fine. One remark: it is possible to look through the ventilation windows in the toilets near the big mosque.

The cistern near the mosque was very dirty. It will be cleaned and the water that will be collected in it will be used for cleaning the toilets.

-I suppose that they will take care that the water they use for this cleaning will not flow back in the cistern.

-other remarks: We saw a lot of papaya trees, very few small homegardens and a very clean stable.

ERICA ZWART

Wathan 21-12-1988 (Abdula, Husein, Nafisa, Erica)

Objectives of our visit: to give health-education at the schools especially about the use of the new toilets.

Neither of the two schools had classes in the afternoon, so we just went to the school close to the healthcenter. The p.h.c.w. went with us. Nafisa talked with all the girls of the school about the danger of human excreta, using the picture about diarrhea out of "where there is no doctor". (enlargement of the different parts of this picture without any text). The girls liked the pictures. They knew already a lot. They found the new toilets very beautiful and should use them when there will be water, and should clean the toilets after use.

The young female teacher thought that all the problems in the village were caused by lack of water and laughed when I suggested that all the garbage should be away with the coming of the water. Jahja, the p.h.s.w. joined us and talked a bit about clean hands and nails.

Together we went to the classroom of the smaller boys. They also liked our visit. Jahja told us that he had talked already several times at the school. We left a picture with the teachers and with Jahja and went to the older children where Abdula was talking about vaccinations. The pupils knew already a lot about the different illnesses. They learned it from their teacher. Jahja said that there was a lot of malaria in the village (which I doubt, because he said that only the adults were suffering from it) and so Abdula explained the malaria cycle instead of talking about bilharzia, which was not a problem in the village. He talks with enthusiasm and the children were very attentive, even after schooltime. I think we have to talk with him that we need more a discussion with the children about water and health and how they can change some habits. There have to be a clear link between what is said and what the children do themselves.

After lunch Nafisa and I sat together. After an hour a few women of the house joined us to keep us company. We made acquaintance and after a while we were talking about what we are doing and why we were there. Bushra, the daughter of the sheikh, said that we were at the school that morning. We asked the women if they would like us to come again to talk with all the women about the relation water and health. (Of course they could not offend their guests in saying "no".)

We gave Bushra one of our pictures with text in the hope that the women will look to it also. It can give us a start when we will come another time.

12.12.'88 : first visit to Magrabeth al Aneb, (abdulsalaam, nafiesah, erica, gadiedzja, hieke.)

After 3 1/2 hours driving, we arrived in magrabeth (+ 11.00) In the first village abdulsalaam checked if the papes had arrived. They were there.

First we went to see the dry toilets near the school. These toilets have been improved by the IWF. Because lack of water they still are not used. Only the teacher is using one. A jerrycan with water was in. We used it, but thought the hole was a little small, a reason why it could get dirty easily (or is it our problem..?)

The plan is to make a tank on top of the toilets. A problem could be that too much water will run into the dry pit. We heard that people don't like these toilets very much, because they cannot wash themselves here.

Next to the school was a watertank with taps. Tomatoeplants were growing next to it. Some water was streaming down the road, (no good overflow)

On our way to the next village we checked a watertank. The pipe was stopped up with dirt. The tank is now filled from above with a rubber pipe.

Afterwards we went to the village with the PH-unit, where we met the PHC-worker, Yahiah, and Zahrah who is working here as well. She did the LBA-training in Attalibi. Both were not very busy today, but Yahiah showed us his registration and we saw that many children had been visiting the unit for vaccination.

Yahiah is also vaccinating children in other villages during the afternoons. He says he also gives health-education, but is not very enthusiastic; people expect him to give med cins instead of health-education.

Zahrah checks the pregnant women at the unit. Most deliveries are done at home, sometimes with her assistance. She tells that during the afternoons she goes out to give health-education during homevisits. Many women don't understand her h.e. messages, but some do. She says she also supervises TBA's

At the moment a TBA-training is given and the trainster, Haliemah, is using one of the rooms in the unit; the antenatal room had more or less changed into a kitchen.

The toilets next to the unit were opened because of our visit. One is used by Haliemah. Usually no one uses them because there is no water.

The tank, with taps-next to the unit- is empty; there is no connection. Again no overflow is made here; the water will stream along the path.

We visited the TBA-training. 10 TBA's from the surrounding villages were trained and they all seemed enthusiastic.

We explained the reason for our visit and talked with them about the training + about the importance to give extension about water, hygiene, health. It is part of the training. Haliemah, who was before training the FPHC-workers in Dawran, tells that she is giving health-education to women during the evenings and emphasizes on hygiene.

We had lunch together with Zahrah and Haliemah and later on a second lunch was served by the TBA's!! (no soap for handwashing)

After lunch we tried to find out if the teacher is talking about hygiene, health, etc. The women said he does. We talked to a girl who is attending school (saboulah) and she gave some funny information, so that the discussion ended in a lot of laughing!! Saboulah tells that the teacher only teaches the how to pray and things like: "Fatmah oem Bilquis" etc.

Her hands were black and we asked if she had already eaten. She just had lunch and not washed her hands. We told her about how people can get worms. She knew already; Yahiah had told her before. She said she had lots of worms!!

Haliema started to tell her that her mother has to wash her daily, with soap, and to give her a clean dress. (but this was the only dress she had and her mother only washes her hair with soap, Tite)! It was a nice example for the TBA's and showed that if you give your health-education in this way it does not work out very well.

After this we started our walk through the village together with Zahrah, to gather some more information. We checked some watertanks and chatted with women about the use of water.

- they do not boil water for drinking.
- they use the water sparingly; there is not enough.
- the tanks are cleaned every week, when they are empty (with soap)
- some people can hardly afford to have a tank filled up. it costs 20 ryal.
- everywhere were leaking taps. bowls were underneath to collect the water.
- places around the tanks looked clean and dry.
- waste water is thrown 'far away', kitchen water given to cows, for trees and plants they use clean water. They don't seem to have a lot of waste water.

- at some places we saw quite a lot of rubbish + ^{a few} streams with waste water
- (children showed us the dirty places and told us it should not be there)
- the houses have no toilets, only a place to wash + urinate; the rest is done in the fields.
- the washing of clothes is done outside the village so that the water streams into the wadi.
- Zahrah told that all the women are breastfeeding and that there is no diarrhoea!

After some joking with children and women, one told us that the health-education Zahrah gives is useless; it does not help at all!

Gadiedzjah explained that when "the Dutch" came ^(in 1800) at first they also thought it was useless what they said about health and hygiene, but after some years they understood better and now many people see that it helps better than only use medicines!!!

Other women said: give us money, that is what we really need!! Look at our houses; we sleep in the dirt on the floor, - do you sleep in places like this??

People in this area are poor, although qat and coffee is grown quite a lot. (most men are soldiers and have low wages)

We explained that we thought that what zahrah tells about health could be important and that we would like to discuss this with them, together with Zahrah, during a meeting next week. All agreed on this.

Main reason for our health-education meetings here, will be the support of Zahrah.

I don't think we need many sessions; Zahrah already knows a lot and at the moment also Haliemah is busy talking to women about hygiene.

If Zahrah (+ Yahiah) get some more support and supervision they will probably be able to talk about water, health, hygiene in the 6 surrounding villages. (?)

We hope that Abdullah, trainer-supervisor, can join us next week to discuss the subjects with Yahiah.

We left Maghrabeth al aneb around 4 pm.

Erica Zwart

Maghrebat Al E'nab: first visit 12-12-1988(Hieke, Ghadidja, Nafisa,
Abdul Salam, Erica).

objectives:-to get a first impression of the water and hygiene situation
-to see the project
-to get an idea of which work will be needed for the women
-to give an introduction on Hiekes work.

-healthcare unit:There are a male as well as a female p.h.c.w. working in the village.They found it very difficult to give health education, because the people didn't believe them. The f,p.h.c.w. visited the pregnant women. She was very enthusiastic about the support Hieke promised her to give with the health education.(see for more information reports Hieke and Nafisa).

-watersituation. The people are very happy with the coming of the water-project, because the water is far and scarce, but at the source it is good drinking water. Even after the project will have been finished the water will be scarce, therefore and because of the people being poor the water distribution will be by public taps.

The already existing public taps have no drainage system to a soak-away pit. The cement floor under the taps is not big enough.

We didn't ask if the cattle will drink at the taps and were the women will wash their clothes in the future.

The teachers planted some trees near their house, which are watered from the tap near the school. They also planted some tomatoes near the tap. It is better to use wastewater for trees, because the scarcity of the water.

-toilets:The dry toilets are not used. The teachers are afraid that it will be a big mess; because there is no water for cleaning the pupils will use stones. The squatting hole is too small for using them without problems. The urine and water drainage hole is very small and in the toilet I used not on the lowest place, so that the toilets always will be wet if properly used.

-other remarks:The cowdung is not used for the tanour, but for agriculture. The places where the cows stand are not daily cleaned and were wet and dirty. There were a lot of trees in the surroundings; the women had plenty of firewood.

The village is rather poor (poor houses p.e.). They rent the land and plant a lot of coffee and qat.

-gadiedzjah did not join because she is attending a TBA-refresher course-

We arrived in Magrabeth at 11.30 and went to the TBA-training. The PC unit was open, but no patients were there. Zahrah was joining the training.

We attended the last part of the lesson about the delivery and discussed it afterwards with them. Haliemah told again that she emphasizes hygiene very much and also giving health education about hygiene had been discussed with the TBA's.

The TBA's repeated all their knowledge about it for us. Haliemah and most of the women left to prepare lunch; with zahrah and a few others we had an interesting discussion about giving health-education.

Zahrah told about her experiences and complained that people 'don't listen'

What to do when people don't accept the advises we give??

Nafiesah suggested that you should be very strict ('act as a police') after the discussion of hygiene in one house, come back the next day and check if the house and the children are clean. All the women agreed that this was probably the best way to do it!!

I asked zahrah if this was working and she answered that it sometimes worked, but not very long. This probably is no good solution, but what to do than?? They had no idea.

I suggested that it might be better to 'be a friend, instead of a police', talk slowly and friendly to the mother, try to find out what her problem is and talk about that subject only, instead of to mention all the knowledge about health at the same time. Also try to find out why they do not accept the message, because then it is easier to discuss it with the women.

Zahrah gave an example: she advised to another who had a 3 months' old baby with diarrhoea to give it Mamix instead of Nido. The mother still gives Nido.

Why? she did not know. We tried to find possible reasons, for example: maybe Mamix is not available in the area? maybe they have not enough money to buy Mamix? maybe they can not afford to go to the town to buy it there? maybe there is another reason for the diarrhoea? maybe the bottle was not clean? etc. etc.

I explained that of course people do not accept all our advises, but this is normal, it happens to me as well. If they don't accept, leave them for a while, let them think about it and discuss it again after some time. It can take a long time before people change their habits; we can never force them, like a police. I told them about my own experiences; Zahrah was surprised; she thought that people accept everything from foreigners.

After this I explained Zahrah that it is important to talk about the real problem and not to give advises about something else. Try to understand the problem of the mother. (what if you have no money and a healthworker comes to you and tells you that you have to buy soap, use more water, buy clothes and shoes for your children; would you accept her advises..?) etc.

We had lunch together with zahrah and Haliemah. -soap + 2 bowls for handwashing were there, this time-

After lunch Haliemah asked if she could have our big shamlam bottle; she wanted to explain the preparation of ORS/water + salt solution to the TBA's. But, no shamlan is available in the whole area; how will they be able to find out how much water is in one litre? Haliemah had probably not thought about this. I explained her my 'method' and showed her that 3 tins of foel -available everywhere- make 1 litre.

I suggested Haliemah to organize a session about water/hygiene/sanitation and health-education with the TBA's, on next monday. The TBA's come from all the surrounding villages and it will be important that they discuss this subject in their villages, after the training. During this session I would like to emphasize the things that were discussed before with Zahrah (about how to give your health-education), do some roleplays and demonstrations with them + what kind of things are important to take notice of concerning water and sanitation.

Haliema thought this was a good idea. (the programme will be discussed with her before.)

We asked Zahrah which subjects she thought to be the most important to discuss this afternoon (what kind of messages the people do not accept from her)

She mentioned the boiling of water before drinking. Why? there is hardly any diarrhoea in the village, so why does she think this is such an important item to discuss with the women? (maybe this could be a reason why people do not accept this advise)?

She understood and mentioned other items like: the disposal of garbage + the fact that people defecate everywhere.

Also she would like to talk about hygiene. We suggested to talk especially about handwashing, because many children have worms. Also we would like to know what they think of the dry toilets.

The meeting was in the other part of the village; we went there around 1.30 pm and waited some time before the women gathered (it was praying time)

In the meanwhile we chatted with the children. Abdullah had visited the school in the morning together with the PHCW. They had given some posters about hygiene etc.

The children said they had understood it very well. (but ofcourse some had very dirty fingernails and unwashed hands) They tell they only wash hands after lunch.

Some girls told that they wash hands before and after lunch, only after lunch with soap. Lateon when the women (+ 12) were present this was again discussed.

They explained how they washed hands, using a tin. They demonstrated how it was done, A tin with a small opening at the bottom is put between their teeth, while they wash hands; the water is collected in a bowl. We showed a lot of enthousiasme about this! It seems to be a habit from long ago.

After this, the demonstration of washing with soap and without.

At first 6 women and girls washed hands without soap and afterwards the same people washed hands with soap. The water was collected and it was shown how dirty the water still was, when hands were washed the second time. (it was really black!)

We explained that the dirt which was in this water now, would have been in their stomachs. A way how diseases like worms and others can spread.

They themselves mentioned the garbage problem in their village. Many people burn their waste but still a lot is left on the paths, esp. in the upper part of the village.

waste water; they say it is no problem; it flows away downhill to the wadi. There is not a lot of waste water, no pools; when it is not too dirty it is given to the trees.

(it would be good to check the places where they throw the waste water)

passing stool: The girls -including Saboulah, who looked very clean today!!- told that they bury their stool and they thought it was better this way.

the dry toilets: they think they look very nice, white, cement, etc.

but too far away, no water. If there would have been water, they would have used them. (difficult to find out if they really will use the toilets)

Other subjects were: The use of water as a medicine; child with eyeinfection- cause + treatment
child with skin infection and dirty feet: sause + treatment.

child with diarroea: idem. advised to boil water when there is diarrhoea.

there was a question about a sore chest and cold; adv to steam with hot water + eucalyptus leaves. Others complained about headaches becuae they have to carry water on thehead.

(the women from this part of the village fetch water from the well, 6 times a day -10 min. walking.)

We suggested them to go to the unit with their health problems and stressed thefact that zahrah got trained and has a lot of knowledge about heath + prevention of diseases.

Zahrah said she appreciated our attention and support very much.

During the meeting Nafiesah was participating quite well and made some notes.

We heard that in one of the villages -Nathiewah- is bilharzia. Many people seem to have it, according to Zahrah. She went there a few times, but without any succes.

(none of the trained TBA's does come from this village)

We left Magrabeth around 4pm and arrived in Dawran at 7 0 'clock.

27.12.'88 3rd visit to Magrabeth al Aneb, abdullah, nafiesah, erica, hussein, hieke
(gadiedjah did not join, because her daughter was ill)

First we had a look at the place where the water comes out of the mountain. A woman was washing clothes here; the dirty water streams to the fields. Many women do the washing here, while others do it further down the waterpipe. Men tell that this soapy water is not good for the coffee plants.

After twelve we arrived in the village (la kamt gazi).

Zahrah was not there, she expected us on Monday instead of Tuesday.

We went to the TBA-training and had lunch together with Haliemah. The plan for the afternoon lesson was discussed with her. Haliemah told that she was doing roleplaying as well. She had not yet explained the preparation of ORS + rehydration solution. She thought it was a good idea to stress the attitude of the TBA when she is giving health education, to emphasize the methods.

She joined and helped translating if necessary.

First I started to talk about the project and explained some of the most important items we discuss during the meetings with the women.

I asked what they thought to be the most important items to discuss in their village. One started to explain everything Haliemah told them about hygiene; personal hygiene, hygiene of the community, etc. etc.

It was clear that they all have the knowledge about it.

After this I gave them some suggestions on how to give their knowledge to other women:

- try to find out what are the main problems in the village, related to water/sanitation/health.
- do this by observing and talking to the women (examples)
- discuss the problems you see with the women (do not talk about the cleaning of watertanks, when all the tanks are clean, do not talk about diarrhoea, when there is no diarrhoea, do not talk about the cleaning of bottles, when everybody is breastfeeding, etc.)
- don't act like a police or a teacher but be a guest or a friend when you visit a woman at home. She will accept your advises better. (example: how would you like it, if Haliemah was teaching you like a police instead of being your friend?)
- put yourself in the situation of the mother
- do not give the mother a bad feeling by telling her that she does everything wrong,
- start with a positive thing -everyone does/has something positive- then it is easier to discuss the things she should change. She likes you because of the positive attention you gave to her. (example)
- be friendly, talk slowly, do not talk about 10 different items, but do one at the time. If you feel angry or tired, don't give health-education to others, but wait until you feel better.
- if someone has a problem, fe. a child with diarrhoea, first let the mother think about the reason of the diarrhoea. Very often she has an idea. If not, try to find the reason together with her and find a solution together. If you are the only one who thinks of a solution, maybe it does not work. (example)
- do not expect that people will immediately follow your advise; it takes a long time before health-education works.
- if it does not work, try to find out what the reason is (example)
- be an 'example'

we did several roleplays: a good and a bad example. (home visits)

1st: a mother has a child with diarrhoea (hieke :mother, nafiesah:TBA) This was the bad example, nafiesah had no attention for the mother's situation and was talking to her 'like a police'. We asked what they thought of it and all agreed that the TBA did very well.

After this we did the same roleplay in a different way, and discussed this as well.

2nd roleplay: child with diarrhoea + preparation of ORS done by 2 TBA's.

while the baby was almost dying and passed watery stool several times, the TBA talked about hygiene and the prevention of diarrhoea. If she forgot to mention something, it was immediately mentioned by one of the other TBA's.

After this roleplay, we discussed that in such a case it is better to support the mother first, give her advises about how to stop the diarrhoea, medicins, or prepare the rehydration solution with her and give it to the child, before you talk about anything else. The mother will not listen to hygiene-stories when she is worried about her child. This was made very clear during the roleplay; the mother stood up

3.01.'89 : 4th visit to Magrabeth al aneb, nafiesah, erica, gadieljah, abdullah, hussein, hieke.

We arrived in Lakamt razi around 11 am. Abdullah went to the school together with one of the PHC-workers.

We met Zahrah in the PH-unit and discussed with her the programme for today. The TBA-training was still going on and Haliemah would like us to tell some more about how to give health-education. She finished her lesson about the delivery immediately and asked if we could start with a roleplay.

Haliemah organised the first roleplay. It was a follow-up visit. During the first visit the TBA had told the mother about the importance of hygiene and now she came back to see if the mother cleaned her house and washed the children.

She did, and everyone agreed that the TBA had done a good job.

Haliemah told that they had practised more roleplays on hygiene last week.

(the TBA's had been imitating 'nafiesah and hieka' and were using the same examples.) I asked if they could repeat the roleplay of the 1st homevisit to a mother who had a child with severe diarrhoea.

It was done a lot better than last week, but still we had quite a lot of comments on the way they gave their advises. (It was played in a very nice and natural way!) A good discussion followed, because of the fact that the TBA had forbidden to bottlefeed the child.

They remembered the making of ORS exactly and Haliemah had made drawings of how to prepare it with 3 tins of 'foel' + another drawing of how to prepare it with big shamlan bottle.

After lunch we continued we a review of the subjects we discussed last week. It took some time before they remembered what was told about how to give the healtheducation.

We mentioned the most important items again and continued with a new roleplay.

A mother has a sick child, eye-infection, ^{fever} cold, coughing; TBA comes to visit her. mother: gadieljah, TBA: hieke, sick child: saboulah al dunniah! The TBA did ignore the problems of the mother and the child; she mentioned things like: 'if you don't wash your child it gets ill' without even asking what complaints the child has, etc. All agreed this time that the TBA made a lot of mistakes.

One of the TBA's took over and gave a better example. She showed how to treat the eyeinfection with boiled water and cotton and refered the child to hospital. She did not know what advises to give for the ^{fever} + coughing the child had. Another TBA took over this part. Told the mother to give a lot of liquids and bathe the child.

After this we started the discussion. What was done wrong by the first TBA?

They mentioned several things but forgot the fact that the TBA had not even watched the sick child and not asked the mother what was wrong with her.

We discussed the advises of the other TBA's. Both had forgotten to talk about what can be the reason of eyeinfection and how to prevent this. (hygiene, wash hands, etc.) One of the TBA's mentioned that they forgot to talk about ORS; but this time there was no diarrhoea!

I showed them how to treat a cold with a steambath + eucalyptus leaves.

(nafiesah who did not feel well today because of a cold took some eucalyptus leaves + try it out.)

Next we made a walk through the village with most of the TBA's. We asked them to mention all the good and the bad examples concerning water, hygiene, sanitation, health. They saw: watertank with a lot of dust + dirt on top. (zahrah explained the danger of this), a leaking tap without anything underneath to collect the water, a small garden next to a watertank, some places with a lot of rubbish and stool everywhere, a baby who was playing in the dirt and later on it entered the house (together with a chicken), a vegetable garden, a place where the rubbish is burnt, a dirty stream of waste water. They could immediately tell how it these problems could be solved. Afterwards everything was discussed in the group. We tried to find a solution on how to get rid of all the rubbish in the village. Zahrah told that after the last meeting she had told the people to burn the rubbish. They had told her to do this, because she gets a salary and they don't!

Haliemah suggested that on the last day of the training all the TBA-s could organise a 'waste-burning' party and try to involve other people or children as well.

We had mentioned before that it is important to be a good example for other people, so all thought this was a good idea.

Gadieljah gave again an example of the situation in Dawran. Because they had seen the good example of 'the dutch' working in dawran, they had finally understood that this

9.01.'89 5th visit to Magrabeth al Aneb, nafiesah, erica, gadiedzja, abdullah hieke.

We planned to visit the village Hathiewa together with Zahrah, the FPHCW. Before lunch we visited the school to attend the health-education lesson, which abdullah, trainer/supervisor, gave.

He started with a review about vaccinations and continued later on with diarrhoea. There was a good attention, children were making notes. Abdullah explained in a rather good way, involving the children.

He brought a lot of health-education posters about all kind of subjects and they were stuck to the wall amongst all the other Koran- and mathematics messages.

Erica had copied some pictures from 'where there is no doctor' about the spreading of diarrhoea, which abdullah explained in the wrong way. Nafiesah corrected him. I had made a flannelgraph of the same pictures which we tested out. By means of a story it was explained to the children who crowded around the flannelgraph, standing on the chairs and tables. Afterwards we asked if some of the pupils could explain it to see if it was understood. They seemed to like it a lot.

Afterwards we visited Haliemah (TBA-trainster) who was in the unit. Zahrah went already to Hathiewa. Haliemah was very disappointed because the TBA's still had not been able to do their exam. They were not motivated to continue the classes and ^{neither} was Haliemah. She would like to join us to Hathiewa. -together with all the TBA-s they had a kind of 'cleaning-campaign' in the village!-

It took some time to find Zahrah who is living near Hathiewa. In the afternoon we met a group of women and children in the village and discussed some items with them. Some of the children we had met in the school and we asked them to repeat the health-education lesson about diarrhoea. First this was done without the flannelgraph and later on with. The attention was good.

Later on we heard about the bilharzia which quite a lot of people seem to have. They stopped going to the cystem to swim. Some people got medecins, but most people not. They say there are no medecins in the health-centre (?)

The women complain that the watersupply is not sufficient + they have to carry it to the village which is uphill.

It became clear that Zahrah's advises about health are not very well accepted in this village; we tried to support her a bit.

After the meeting we all had a look at the waterreservoir near the village. Water was leaking out and streaming downwards. A small waterbasin next to the tank was filled with dirty water. This water is used for washing, bathing children, cows. The women tell that the basin is cleaned regularly.

Before we left we talked to some men to find a solution to get rid of the waste in the village. They immediately ordered the children to clean the area.

20.02.'89 6th visit to Magrabeth al Aneb: hussein, nafiesah, erica, gadiedzja, saleh sabr, -trainer/supervisor- najwah, -backstopping mission IWP-hieke.

We arrived in Adukni around 11 o'clock to see the TBA-s of this village and to check the water situation. In Adukni there are 3 TBA's: 2 young girls and one old 'dzjedda' -the only one who is doing deliveries- We visited them and had a short meeting together with some other women. They all were very upset, because the sudden death of one of their cows. The cow delivered and after the calf something strange came out -alive and with many eyes(?) -; before it was out the cow died. The TBA's try to do some health-education and talk about water and sanitation. We got the feeling that it is not well accepted. (Also the pregnant women do not allow to check)

We repeated some items, while other women were listening. Zahrah also came up to Adukni and joined.

It was just a short discussion because we were fetched to have lunch in the house of one of the PHCW's. Erica, zahrah and hieke stayed in the house of Hoeria muh. -the old TBA- because she insisted on this very much. We tried to gather some information in the meanwhile.

Zahrah's husband told us that he does not agree on the fact that they cannot get any water near the house. He seemed to have done a lot of effort!

Their house is further away from the village (Hathiewa) and a bit uphill.

In adukni they constructed a concrete floor around the water reservoir. Water seemed to leak out of one of the pipes. (?)

A problem was that other people were fetching water out of the reservoir from the opening on top, using dirty buckets. (they are building a house opposite of the tank and use the water for the cement.)

After lunch we had a quick walk through the village; it looked not clean at all, a lot of animal shit and garbage all around.

The 3 TBA's joined us on our visit to the next village, Mougah.

Here we visited fatmah ali, the TBA. We started with our walk through the village together with the TBA's and some other women and children.

We had asked Hussein and saleh to do the same together with the PHCW. But they had plans to organize a big waste-burning festival together with all the people from the area. It was announced by a microphone. (La kamat gazi)

We saw some dirty waterstreams, smelling and a lot of flies around, but in general this village looks very clean. Many houses have pipes to get rid of their waste water;

in some cases the pipes lead to a vegetable garden, which was a very good example. Trees, henna bushes, tomatoes, etc. were growing very well! Water tanks looked very clean, also on top, and some had made use of plastic bags to avoid dirt getting in. (underneath the lids)

We had asked the TBA's before to observe everything well and to mention the good and bad things they had seen, later on in the discussion.

This discussion was mainly between the TBA's; the nr. of village women was rather small. The same items were discussed (handwashing, diarrhoea) and some information was gathered.

The tanks are filled once ^{every two} a week, which is enough for most of the people. But still quite a nr. of women go to the well to fetch water or to do their washing. They say it is no problem! (according to Fathmah)

Fathmah ali, the TBA of Mougah, seems to be accepted rather well

We complimented them about the cleanliness of their village and left around 4 o'clock In 2 weeks we plan to visit the other 2 villages of the magrabeth al aneb area, together with zahrah. We have to consider if it is worthwhile to take more TBA's with us, like we did today. We evaluated the session later on with Najwah and decided that it might be better to concentrate only on the village women and the TBA of this village. Otherwise the risk is there to have the discussion mainly with the TBA's instead of the villagewomen. It might be an idea to organise a kind of refreshercourse later on for the TBA's on water/health/sanitation, possibly in cooperation with DRHP (?)

Saleh sabr, trainer/supervisor from Al zjoemah will join us from now on instead of Abdullah.