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RADA' INTEGRATED RURAL DEVELOPMENT PROJECT

Technical Note 31

REVIEW OF THE RWES HEALTH EDUCATION PROGRAMME IN 1988

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GLOSSARY

khubz	- flat round Yemeni bread
fraj	- Yemeni living room, being exclusively furnished with matrasses and cushions to sit on
LBA	- local birth attendant.
MCH-clinic	- Mother and Child Health clinic
PHW	- primary health care worker
RIRDP	- Rada' Integrated Rural Development Project
ruti	- bread baked in bakeries with the shape of baguettes
RWES	- Rural Women Extension Section
RWSSP	- Rada' Water Supply and Sewerage Project
TALC	- Teaching Aids at Low Costs, London

1 INTRODUCTION

1.1 Rada' Integrated Rural Development Project

Since 1977 the Rada' Integrated Rural Development Project (RIRDP) has been active in Al Bayda province in the south-eastern part of the Yemen Arab Republic. The project is involved in construction of feeder roads, domestic water-supply and sanitation , land and water conservation works, livestock, agriculture, horticulture and women participation programmes. The general objective of the project focusses on the improvement of the conditions of life of the rural population in the Al Bayda province.

1.2 Health education within RIRDP

As improvement of health is an essential part of improvement of the conditions of life, health education gets already since 1985 attention within RIRDP. Mostly this was in cooperation with the Mother and Child Health (MCH) clinic in Rada'.

Till 1986 health education remained an occasional activity: the population asked for it and RIRDP personnel thought it important, but nobody was assigned to spend on it the needed time.

In May 1986 a female health education specialist arrived to work part-time for the project within the RWES as an advisor. Due to poor staff conditions she was fully occupied in helping to keep the existing programmes of the RWES running, and in organizing and carrying out a training course for female extension agents during the first part of her stay.

In November 1987 8 trained extension agents joined the section. In the meantime the advisory staff of the section had been increased. As also the Sanitation sub-Section welcomed its sanitation extensionist in January 1988 and the health education advisor was going to work full-time for RIRDP from June 1988 on, the time had come to concentrate fully on the development of a health education programme within RWES.

1.3 Aim and objectives of the RWES health education programme

The aim of the health education activities carried out by the RWES is to reduce mortality in the villages by enlarging the knowledge and awareness on hygiene, nutrition and other primary health care activities and by stimulating change of customs among the people concerning these subjects (ref. 5).

As this general aim cannot be evaluated, specific objectives have been formulated (ref.6, page 13). These objectives are as follows:

- to organize a filing system per village and per subject;
- to produce extension materials concerning the subjects taught;
- to train at least 7 female rural extension workers - head of section of RWES, so that without supervision they are able to organize and to perform a health-education session in a village;
- to train at least 4 women leaders, so that they are able to discuss with women the importance of the subjects;
- to create awareness about the necessity of the above;
- to evaluate the effects of: .health-education activities
  .training of women leaders
  .training of extension workers.

1.4 Health education in comparison with the other RWES activities

RWES covers four activities: agriculture, livestock, handicrafts and health education. Health education differs in a number of respects from the other activities:

- The specific messages to be transferred are still under development. Health education is a new programme within the RWES. Although it is known which are the main health problems of the rural population, solutions adjusted to the rural life are still searched for.
- The other RWES activities promote a fixed number of products or skills. However if health is to be improved life should change on many different points. One change only will probably have no effect e.g. if one starts to boil drinking water but at the same time vegetables which are eaten raw are not washed properly, then the boiling of drinking water will have no health effect.
- The effect of health education is only visible in the long run. If somebody learns to knit a carpet, the result, the carpet, develops under her eyes, the milk production of a cow has increased already a few weeks after the start of regular bonemeal supply. Preventive health education however aims to keep people healthy. Only in the long run people will notice decrease of child morbidity and mortality.

1.5 Aim and target group of the report

One of the recommendations of the short term mission in February 1988 by Ms. Lies Holstein to upgrade the programme of the RWES was to evaluate every programme of the section at the end of 1988. Also during the short term mission carried out by Ms. Dia Timmermans in April 1988 when a framefork for the health education programme for the RWES was drafted, the need of a profound evaluation at the end of 1988 was felt.

This report deals with above evaluation by giving a detailed review of the RWES health education programme for the year 1988.

Further aims of this report are:

- to lay down the experience gained by the health education advisor during 1988, as she will leave the project in May 1989;
- to provide the backstoppers with a tool for future planning for the

RWES in general and health education in particular;
- to provide the new health education specialist with a document to build her work on;
- to inform others who work in health education in the Yemen Arab Republic and who are interested in the development of health education within RIRDP.

2 DESCRIPTION OF THE RWES HEALTH EDUCATION PROGRAMME

2.1 Planning of the health education system: the "Mill of Rooyen"

In 1988 health education within RWES was in a pilot stage. It was decided (ref.6) to limit the fieldwork to four pilot villages and to use the experience gained in these villages to develop a health education programme which then could be extended to other villages.

For the planning of the health education programme the extension model "Mill of Rooyen" * is used (ref.8):

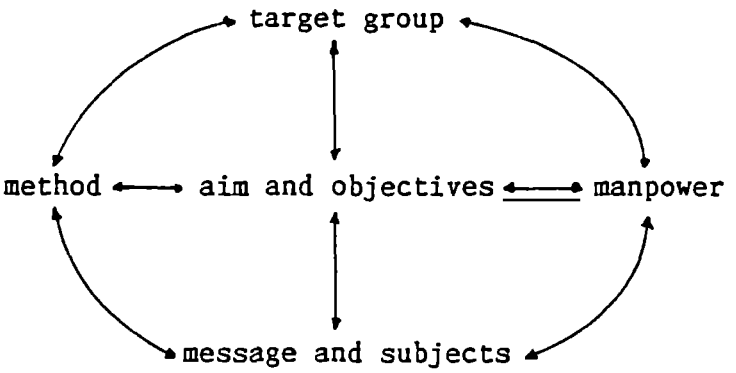

Fig. 1. Extension model "Mill of Rooyen"

The model is a planning model. Each of the elements of the model is related to the others. The consequence of the model is that the whole system of health eduation will function properly only when all elements are well developed.

2.2 Subjects, messages and objectives

At the start of the programme a total of 7 villages was visited in order to ask women about their health problems and their interests to learn about health. Based on the collected data (see Annex II) health education started in 4 pilot villages. Also throughout the year at the end of each visit it was discussed and decided what would be the topic next time.

During a village visit a group of women gathers at a certain place (see 2.4.4). A meeting is held in which discussion, demonstration and/or teaching of a skill takes place on a primary health care subject:

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* The official version of the model does not contain the words "and objectives" and "and subjects". The model was adjusted for easy reference to the paragraphs of this report.

hygiene, nutrition, mother and child care or vaccination. Such a meeting is called a "health education session" and in principle takes place once a fortnight per village.

So far 10 topics were discussed more than once, yielding information to such an extent that the messages as well as the objectives for these 10 sessions have been developed up to an operational standard. The detailed information on a session is laid down in a subject file as is discussed in 2.5.3 (see also Annex III). These 10 sessions are mentioned in Table 1.

Education about the next topics took place only once and thus needs further elaboration:

- skinproblems
- health care during pregnancy and after delivery for mother and child
- water as means for prevention and cure (repetition and integration of earlier sessions from the viewpoint 'water').

Table 1: Contents of the 10 most developed health education sessions subdivided in knowledge transfer and taught skill or demonstration

	knowledge	skill / demonstration (*)
I.	how to treat diarrhoea	preparation of ORS-solution
II.	benefit of the growth chart	how to read and interprete the chart
III.	how diarrhoea spreads + environmental health	treeplanting on waste water sites
IV.	what and how to feed under-fives	preparation of Shabiza porridge
V.	why and how to clean drinking water	cleaning water by putting water bottles in the sunlight
VI.	how to prevent and treat cough and fever	demonstration of useful tools
VII.	physiology of woman concerning conception	demonstration of anticonceptives and T-shirts on which different stages of pregnancy have been drawn
VIII.	importance of vaccination	slideshow
IX.	how to prepare cabbage	cabbage cooking
X.	how to prepare cauliflower	cauliflower cooking

(*) for extension materials see 2.5.4.

During every session the overall message is repeated: "a good resistance is the best prevention of illness, what means: having a good weight, eating well, being hygienic, being well clothed, being vaccinated". The vicious circle of underweight, bad nutrition and illness is again and again referred to. It is emphasized that with some simple changes in daily habits the risk of illness can be remarkably diminished.

2.3 Target group: rural women

RWES as a whole is working with the women in the villages; thus it was obvious to define these women as the target group for RWES health education activities too.

The main condition for this programme is interest of the women to think with others about health hazards and possibilities to avoid them. This is the basis of the extensive participation asked for in the pilot village (see 2.4.2).

Also openness for the Western health approach is required: although it is tried to incorporate people's own ideas as much as possible, the new knowledge and techniques applied during the programme follow the western line of thinking.

In addition women should be ready to visit the sessions once a fortnight for 1 or 2 hours. The women leader spends about 3 hours a fortnight in the cooperation.

It is tried to minimize additional requirements. Solutions for health problems are sought together with the village women resulting in solutions which reflect the prevailing social and economical circumstances.

2.4 Organization

2.4.1 Introduction of health education in the village

So far health education started in four villages where RWES had already been working. People knew RWES could also give health education and they expressed the wish to be included in the programme. Thus names of active ladies were known and in co-operation with these women more village women were contacted to have an introductory talk asking them about their wish to have health education and about their specific felt needs (see Annex II).

2.4.2 Extension method

In general the health problems common in the rural areas are known. However more detailed information about how people experience these problems was not yet known in the section. Also it was still to be found out which advices were suitable for the rural areas and how advices could be adjusted optimally for the villages. This message development that was to take place is only possible if close co-operation exists with the target group, if people fully participate in the extension. This participation was a main component of health education in 1988.

With participation is not simply meant: to be there and to listen with interest or to assist in doing a demonstration. The participation asks more from the people. The women are asked to bring up

their problems, their custums, their habits. They are asked to teach the advisor like the advisor teaches them, finding together a suitable answer to a problem. They are asked to try new things out and to show their experiences. Thus a very active attitude of the targetgroup is required.

It cannot be expected that people participate intensively from the first session on, especially when one realizes that the institutional teaching in Yemen exclusively uses a top-down approach: if somebody is teaching you, you sit quietly and listen. Women have to get used to the different approach, they have to get used to the idea that their thoughts and opinions are essential for the success of the session. Therefore the sessions are composed in a way that involvement of the people increases in the course of the programme.

A health education session contains the next elements:

- women telling about their health problem;
- the advisor and extension agent asking about the health problem to get a clear idea of the thoughts, the practices, the seriousness of the problem;
- the extensionist giving background information about the problem: e.g. what could be caused by, what could be done to prevent and to cure it;
- demonstration of a useful practice related to the problem;
- discussion with the village women about the suitability and applicability of the village practices and the practices shown by the advisor and extension agent, followed by adjustments;
- conclusions about good practices;
- choice of subject for next time and appointments.

There is always sought for a combination of knowledge transfer and introduction of a new practice, a new skill or technique. Showing how the new knowledge can be put into practice increases the likelihood that this knowledge indeed will result in different behaviour. People having tried the new practice already once will more easily apply it afterwards.

Another advantage of presenting something tangible like a technique or skill is that it is easier for the extension agents to carry out than to present abstract knowledge.

2.4.3 Extension materials

Because a search campaign by the advisor in 1986 as well as a second effort in 1988 were in vain to find suitable health education materials for the rural areas of Yemen, it was decided that extension materials were to be produced by RWES itself. In 2.5.4 a review is given of the materials used.

2.4.4 Organization within the village

As mentioned before, first contacts in the village go via a known active woman. Often such a woman is already occupied in another RWES activity. In order not to overload her during the first sessions the audience is asked to appoint another lady to become women leader in health.

Appointments about when to visit the village are usually made during sessions. If the session can not take place the RWES extension agent and the women leader together make a new appointment (when the agent visits the village because of another RWES activity).

Meeting places differ per village: either they are in the fraj* of the leading woman, or in a rented fraj which is furnished by RIRDP and serves as a centre, or in a room where the PHC worker gives consults.

2.4.5 Organization of a fieldday

The advisor and two of the extension agents go together on a fieldtrip. In principle two fieldtrips a week take place, in two weeks all four pilot villages are visited.

A fieldtrip serves several purposes:

- health education of the women in the village
- training of extension agents
- training of women leaders
- development of the message and the session as a whole.

The fieldday schedule is as follows:

. At the office the materials needed are collected and if needed, things are bought;
. Travel to the village;
. In the village it is tried to sit with the women leaders, extension agents and advisor to discuss the coming session before the session starts;
. The session takes place;
. This is followed by a review between women leaders, extension agents and advisor;
. The advisor checks whether leaders and agents have understood well;
. Extension agents together with advisor write a report;
. Travel back to Rada'.

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*fraj: Yemeni living room, being exclusively furnished with matrasses and cushions to sit on.

2.4.6 Role played by different people in health education

women leader

Women leaders are the contact persons in the village. RWES works in the villages through them and the women of the village can consult them about the contents of sessions.

extension agent

The extension agents are the contact persons between the village and RWES. A pair of extension agents travels always to the same area (in total four pairs in four areas). They are involved in all four subjects of the RWES. They spend one fieldday per fortnight on health education.

After training (see 2.5.5) the extension agent should be able to carry out health education sessions without the presence of the advisor.

advisor on health education

The advisor coordinates the development of the programme:

- She formulates messages for the sessions;
- She trains the women leader and the extension agents, and leads the sessions as long as the extension agents are not yet capable to do so;
- As soon as the extension agents can lead a session on their own, her task of execution changes in supervision;
- She develops health education materials;
- She prepares a filing system per session, which should make the extension agents independent from the advisor for execution of the programme;
- She prepares a village file containing reports per village visit;
- As part of the programme development she carrries out the monitoring and evaluation of the programme;
- She is the contact person for RWES with third parties concerning health education.

men in the villages (husbands and brothers)

So far men don't play an active role in the health education. Passively their contribution consists of permitting the women to visit the sessions or accompanying them and providing them with money in case they need to go to Rada' for medical check.

RWES, Sanitation sub-Section and third parties

Daily contacts exist with the other advisors of the section. It is aspired to integrate the different activities of the women section and to use the experience which exists already with other members of the RWES about the villages.

The Sanitation sub-Section and RWES attune their programmes

as much as possible. In the decision where to construct new facilities the Sanitation sub-Section first contacts the RWES-villages. Only after the population appeared not to be interested they shift to other villages. RWES is asked to have orientating talks with women in the villages where the Sanitation sub-Section carries out its programme. After the technical part of the sanitary facility has been completed another visit is asked for to hear from the women whether adjustments might be required.

Co-operation exists with the MCH-clinic in the next fields:

- as till June 1988 the advisor worked as well for the MCH-clinic as for RIRDP, messages on children's nutrition are well attuned in both projects;
- continuous exchange of information takes place: clinic personnel checks RWES messages on medical correctness, the health education advisor advises the clinic on methodology of health education;
- referral of patients from the villages by the advisor is considered seriously by the clinic personnel and the advisor is kept informed about diagnosis made and advices given to such patients;
- the MCH-clinic is provided with the subject files and extension materials made by RIRDP with the aim to transfer uniform information to the population;
- on request of RWES the MCH-clinic starts vaccination programmes in the health education villages of RIRDP at the time this suits in the RWES health education programme;
- the advisor tries to motivate the family of women leaders to accept their daughter to be trained as a local birth attendant or primary health care worker;
- in case of epidemics observed by the advisor, the MCH-clinic sends a mobile team to treat the population (e.g. skinproblems in Al Hajar).

Monthly informal qat sessions being visited by all people involved in health education in at least Dhamar and Rada' provides an exchange of information in this field between RIRDP, the MCH-clinic Rada', Rada' Water and Sewerage Project, Dhamar Rural Health Project, Dhamar Hospital, Range and Livestock Improvement Project and Integrated Water Project Dhamar.

2.5 State of affairs

2.5.1 General

The health education programme as described here started in February 1988 (for details see ref.6). The programme is being carried out in 4 pilot villages, each one situated in another concentration area of RWES (see Annex I):

Az Zuab in Qayfah, concentration area "North East", travelling time 30 min.;
Hayd al Majil in Wadi Tha, concentration area "North West", travelling time 30 min.;
Suar in Wadi Hubaba, concentration area "South East", travelling

time 20 min.;
Al Hajar in Sabah, concentration area "South West", travelling time 60 min..

Health education is still in a pilot stage. Messages, education materials and instruction materials are under production, while the extension agents and women leaders are still in great need of training.

2.5.2 Fieldwork

Table 2 gives an overview of the fieldwork carried out in 1988. A fieldvisit does not necessarily involve a health education session. Sometimes visits were payed for organizational reasons or contacts were more personal instead of the group approach in sessions, as was the case during treeplanting on waste water sites. Also it happened that sessions were cancelled when arriving in the village.

Fieldwork could not be carried out during the whole year. Harvest time, Ramadan, 'Aiet and leave of the advisor were reasons to postpone fieldwork as well as occasional problems in the villages. More detailed information about these visits is given in Annex IV.

Table 2. Fieldwork in the pilot villages in 1988

	Az Zuab	Hayd al Majil	Suar	Al Hajar
number of fieldvisits	24	11	27	16
number of health education sessions	20	4	14	10

2.5.3 Filing systems

It is aimed to design a system of health education which is in the long run independent from the advisor. A good filing system is therefore indispensable.

Two different systems are to be developed:

- a village file in which all the information concerning a specific village is collected (e.g. reports of sessions, identified problems, special appointments);
- subject files, one file per session, which should contain an outline of the session, background information, an indication which extension materials can be used and references to the village file.

Village file

In 1988 the village file was set up. Every health education session is followed by the writing of a report in Arabic (by the extension agent) and in English (by the advisor). The English form used is given in Annex V.

The extension agents are capable to report independently about the concrete categories (e.g. time, number of visitors). Categories which are more descriptive pose problems (e.g. subjects discussed with the women leader). In the beginning it was tried to have a similar English and Arabic version. However this takes 1 hour per report resulting in a very limited description. The procedure followed now is that the extension agent writes an Arabic report on her own, and then reads this to the advisor who discusses the result. The advisor herself writes a detailed report about the session in English, which is also of use for the development of the programme.

Subject files

A subject file is written by the advisor when a session has crystallized out (see 2.2). So far it contains the following chapters (see Annex III):

- aims of the session;
- instruction for the extension agent (including which extension materials to be used);
- evaluation form concerning visiting women;
- evaluation form concerning women leader;
- evaluation form concerning extension agents.

Parts still to be added to the subject files are:

- references to village file;
- background information.

Table 3 gives an review of the state of the subject files at 31st of December 1988.

Table 3. State of the prepared subject files at 31-12-1988

	English	Arabic
growth chart	finished	finished
cure of diarrhoea	finished	finished
conception	under process	
cough and fever	draft ready	
cabbage cooking	partly ready	partly ready

2.5.4 Extension materials

To lend force to a session especially the appearing situation is used: a child suffering from diarrhoea or underweight and the story the mother tells about it, a stream of dirty water in a village, a mother who just wiped the nose of two of her children with the same cloth, to illustrate how easy illnesses are spread.

In addition extension materials are brought with us. For the current sessions the next ones are being used:

I. how to treat diarrhoea
.made and used: leaflet on ORS-preparation suitable for illiterate women
.used from villagers: water bottle, salt, sugar

II. benefit of the growth chart
.used: flannel growth chart from TALC*, copies of growth chart, field weighing scales of UNICEF
.made and used: trousers for children to weigh them easily

III. how diarrhoea spreads and environmental health
.made and used: flannelboard and flannelgraph series on the spread of diarrhoea

IV. what and how to feed under-fives
.made and used: a box containing all kind of cooking necessities which is taken to the village whenever cooking is going to take place

V. why and how to clean drinking water
.used: a carton containing 12 empty water bottles (1.5 l)

VI. how to prevent and treat cough and fever
.used: Eucaplyptus leaves, children's underware, paramol syrup, vitamine syrup

VII. physiology of woman concerning conception
.used, made by MCH-clinic: T-shirts showing different stages of pregnancy by means of life-size pictures drawn on them;
.used: anticonceptives as used in the MCH-clinic

VIII. use of vaccination
.used, property of MCH-clinic: slides, slide projector and generator

IX. how to prepare cabbage
.made and used: audio-cassette on how to prepare cabbage, see also IV

X. how to prepare cauliflower
.made and used: audio-cassette on preparation of cauliflower, see also IV

2.5.5 Training of extension agents

Formal training of extension agents during 1988 covered the next items, one lesson lasting half a working day (3 hours):

Extension science and organization:

- The organization of health education within RIRDP
- How to report on behalf of health education
- Using questionnaires
- How to process data to make them ready for computer-input (in fact: why is it important to report concrete answers in case of interviewing)
- How to use the growth chart as a tool for evaluation
- Aspects to pay attention to when teaching about ORS
- How to use a cassette recorder

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*TALC: Teaching Aids at Low Costs, London.

- How to give a cabbage cooking demonstration
- How to give a cauliflower cooking demonstration

Health knowledge:

- Cure of diarrhoea
- How to make ORS (repetition)
- Infections, immunization and vaccination
- Skin problems
- Physiology of conception
- Family planning
- Paramol
- Garbage disposal system Suar
- How to cook cabbage
- How to cook cauliflower

2.5.6 Training of women leaders

The women leader of Az Zuab is trained according to the planning of the programme: she is able to teach the women of the village in the absence of RWES-personnel.

The women leader in Al Hajar is a local birth attendant. Concerning health her knowledge is sufficient. In extension education she should have more training.

In Hayd al Majil a women leader was appointed just before the programme was postponed in this village. As soon as the programme is continued her training will start.

The women of Suar discussed possible candidates to become women leader. In January 1989 they will decide on it.

More detailed information about the women leaders is given in Annex VI.

2.6 Beneficiaries of the programme

The attendants of the sessions can be distinguished into 3 groups concerning their tasks in society:

- girls of marriageable age, between 12 and 17 years old,
- women in the age of having young children, between 18 and 30 years old,
- grandmothers, women who have no little children anymore.

The youngest woman/girl in a household is the one with the heaviest workload. Mostly these are young girls in the marriageable age. They fetch water, collect firewood, work in agriculture and clean the house, do the cooking and take care of other children if needed. In case there are more young women in the house activities are shared: one day one woman goes for firewood, the other day another woman does.

The young mothers do the same work as the girls, but if their work can be shared with other women in the house it may be a bit lighter. If there is a younger girl to work with her she spends more time with the children.

The grandmothers don't have tasks in the heavy jobs anymore. They take care of the children or feed the cows.

In general one could say: the older the less work. But everything depends on the number of women in a house: a mother with a daughter of about 14 years old is said to be lucky: the girl is doing the household because she still has to learn it. A woman living alone in a house having 4 children up to 7 years old has a difficult life: all tasks have to be carried out by her.

It will be clear that the expectations about the session differ for these different groups of women. Also velocity of understanding and acceptance of the messagese differ.

The young girls have a low status. They have to obey and to learn how to do the housekeeping. Although these girls rarely participate in discussions they appear to be very interested. They easily pick up new information and if asked for they are able to explain what was taught even quite some weeks after the session. Probably this is influenced by school visit and watching of television. Quite some girls of this age are sent by their mothers to learn and/or to tell the busy mother at home what was discussed.

Motherhood is what women appear to be most concerned about during health education sessions. Having children gives a woman status and makes her life worth to live. Divorce (3 of 32 known women) and infertility (4 of 32 known women) are problems that affect women's lives basically. Although all women are curious about anticonceptives only 1 of our regular visitors expressed the wish to use them.

Grandmothers don't have a heavy workload anymore. Although the impression existed that they only participate because they like the atmosphere, it appeared that at least 3 of the 6 follow one or more of the advices given.

Besides distinguishing women according to their tasks the visitors could also be divided into regular visiting women and women who only visit the sessions in case they have concrete questions, e.g. about an eye-infection, about ever returning complaints, about possibilities to get pregnant. These women attend for curative reasons which lays outside our field of work.

Table 4 gives an overview of the number of women who are involved in the programme per village and per category.

In Az Zuab and Hayd al Majil the visiting women belong to one family. The atmosphere is good, the women are eager to cooperate. The group contains as well women who possess quite some money as women who are poor. It is difficult to say something clear about the social

Table 4. Number and categories of women involved in the RWES health education programme in the different pilot villages in 1988

	regular visitors			regular + occasional visitors *
	marriageable age	women with young children	grand-mothers	
Az Zuab	4	9	3	28/110
Suar	5	11	3	26/80
Hayd al Majil	6	12	1	19
Al Hajar	0	2	0	28/60

* Before the slash the total number of contacted women as result of ordinary visits, behind the slash the total number including vaccination days.

position of these women. However both groups do not belong to the most influential groups of the village.

In Al Hajar and Suar the attending women do not belong to one single family. They come from all parts of the village. Also here the the visitors do not belong to the most influential families of the village.

More information about the visiting groups in the four pilot villages is given in Annex VII. For further discussion see 3.4.

3 EVALUATION OF THE RWES HEALTH EDUCATION PROGRAMME

3.1. Subjects and messages

The components of the programme that appeal most to rural women change in the course of time.

At the start of a programme the people of the village are mainly interested in the curative side of health: they have a certain health problem and want to learn what is best to do about it. They want to see a direct profit of a session. A session like "how to treat diarrhoea" is very popular at that moment.

In the course of time women start to realize however the interrelationship of illness and every day's life, they get a broader insight in health. A direct effect of the session is no first priority any longer, background information and discussions about their way of life are popular. These later sessions have more a character of participation and discussion. Of course remedies are still very welcome and needed, also as tool to keep the attention of women who need more time to grasp the idea.

Quite a big difference exists between young and older women, the line laying at about 27 years. The younger women are more capable to talk about abstract or invisible subjects, e.g. microbes. Also when asked to explain the essentials of the sessions, they appear to have understood sooner and better than the older women.

To absorb exact information or figures appears to be a big problem. The recipe for ORS-solution "add 2 fingerpinches of salt and 1 hand of sugar" appeared difficult to remember. When the message was changed into: "add a bit salt untill the water tastes like tears (one or more fingerpinches), then add a hand of sugar", the women immediately could make the solution not hesitating anymore whether to put 1 or 2 pinches of salt, they explained right how to make it and the composition of the solution improved. Also familyplanning by the rhythm method proved to be unapplicable: after 2 sessions now and then the women leader could mention without mistakes what days a woman could sleep with her husband without getting pregnant.

While figures are difficult to remember, the essence of messages as well as important details are grasped very well. Although told in different words to one another most of the time the point remains unchanged. When repeating the recipe of how to make ORS-solution the women never forget to mention that too much salt will make the child vomit, and too little salt makes the solution useless.

A detailed survey about health problems was never carried out in the RIRDP. However with the publication of the research about childhood malnutrition and mortality in rural Dhamar carried out by Sharon E. Beatty and Ronald E. van Dijk (ref.1)) our points of departure and assessments of the problems are confirmed.

3.1.1 Session I: How to treat diarrhoea

In a number of ways "how to treat diarrhoea" appeared a good session to start the programme. When returning in the village for the second session there is always at least one woman who reports about good results of the ORS. This often causes a repetition of the session and allows the advisor to check whether the message was well understood. Visiting women are invited to explain the message to the other women (if a women leader was chosen already, especially she is), thus stimulating participation. This session makes women more eager to learn about health. The message is so simple that no woman has problems in reminding it, or enough women are around to help her if she needs the ORS. Women are taught to start at once with ORS if diarrhoea occurs, and if it is not cured after 3 days they should visit a doctor. As ORS is cheap, easy to prepare and something to try before deciding to seak medical help, women tend to accept this message easily.

A disadvantage of using this session as the initial session is that identification with curative health care occurs, which is difficult to reverse later on.

In Az Zuab the group of women stated spontaneously, 8 months after the first session that diarrhoea is no longer a problem in their village. The number of children having diarrhoea decreased considerably. They attributed this to the ORS-solution.

ORS-solution is no medicine. Supplying a child with ORS as soon as diarrhoea starts only makes that the child keeps its strength, thus overcoming the diarrhoea attack sooner. In this way it may keep the duration of diarrhoea limited. Thus the number of children suffering from diarrhoea on a particular day might well have decreased, but from ORS the incidence will not have decreased. If so, this is probably grace to the complete health education programme. However to get clear figures is impossible: the group is too small and no data are available about the situation before intervention.

3.1.2 Session II: Benefit of the growth chart

Women are eager to learn about the growth chart. They know the chart because they all get one when they visit the MCH-clinic. However, they are never told the meaning of all the lines and figures.

During a session the women very soon can tell whether a child has a good weight or not, reading the chart. Half of the women can also indicate whether the growth of an underweight child is increasing or not. However only the two women leaders (in Az Zuab and Al Hajar) were able to read more detailed information about a child when seeing its growth curve.

Women who understand now that the growth curve of their children should rise according to line indicated on the growth chart and whose child appeared to have a low weight during the session, come regularly to have their children weighed and to discuss the diet of the

child with the advisor. These are the women who best remember the message of the session and who think this session most valuable.

The impact of this session can be improved when every 4 months the session is repeated. Then the interest of the women with initially good-weight children will be kept too: the weight of the children tends to worsen when growing older and these women will see it happen with their child (in Az Zuab and Suar more than 45 % of the children appeared malnourished in the age group of 6 to 36 months, see Annex 8). In this way the growth chart becomes the red thread through the health sessions and provides the group with an extra tool to discuss the consequences on health of all kind of life.

3.1.3 Session III. The spread of diarrhoea and environmental health

The explanation how diarrhoea spreads ending in a discussion about possibilities to improve the environmental cleanliness in the village is an eye-opener. Most attention is paid to the discussion of the flannelgraph series, to make sure that all women understand how the spread can take place. The information about environmental cleanliness is added to show the relation with the environment of the house. The complete session gives too much information to be grasped at once, but in later sessions parts of the session are repeated. Then it appears that the women quite often refer to the flannelgraph series.

The tree planting that is proposed to get rid of the wastewater in the village, thus protecting the health of the children and making the village more beautiful is very welcome. Although people tend to stress especially the esthetical part of the programme...

As this treeplanting on refuse water is a new activity, it needs close monitoring in future.

3.1.4 Session IV: What and how to feed under-fives

Concerning feeding of children especially the frequency of eating is stressed. In discussing what to eat, the local food is promoted with the remark that vegetables should take a more important place in the diet. As an example of weaning food Shabiza (ref.2) is cooked. Women are pleasantly astonished to hear that the Yemeni kitchen is so good.

To hear that the frequency of feeding should increase for children makes women silent. This is possible in houses where more women live together, but quite some women don't have somebody who could feed their child when they are working outside. This is a serious bottleneck of childcare (ref. 1). A general view of how this could be solved has not been developed yet: in a group discussion women mentioned reasons why this is so but we didn't manage to find solutions. The language barriere appeared too big to guide this discussion adequately. Also more time should be spent to find out about this.

In individual cases we seek for individual solutions. Then also intensive follow-up is needed. But in practice the advisor only visits a village once a fortnight (at an average), and the extension agents don't have sufficient knowledge of the matter to advise women adequately yet.

The statement concerning vegetable consumption also meets constraints. Only when men have been to Rada', once a week at a maximum, vegetables are a substantial part of the lunch. The other days an occasional onion or tomato may be part of the dish. Vegetable gardens as promoted by RWES don't produce enough for the whole year, and are only practiced by a limited number of women. After thorough discussion at the MCH-clinic it was decided to mention the possibility of vitamine A,C,D syrup to give to children in the months that neither fruits nor vegetables are eaten. Especially the women having a child with health or weight problems were interested to buy this syrup which they could order through the RWES. Money was no problem.

Shabiza preparation is followed with interest. Some women follow the example and start to prepare this for their children. These are quite modern young women. But the majority doesn't want to spend time on this extra work. At the same time people tend to buy more and more packets of infant cereals. Besides being expensive these packets often contain a lot of sugar. As women among themselves talk quite often about childrens' food it is advisable to prepare Shabiza (in all kind of different compositions) as part of every cooking demonstration, simply to keep part in their discussion about "what is good childrens' food".

If women mention certain adjustments in the diet that appeared profitable to the nutritional status of their children, these remarks are remembered and told in other villages too. So has labban (sour milk) become popular to give to low weight children since a woman in Al Hajar succeeded to increase the weight of her child quite fast by giving it a cup of labban daily. Although it is questionable whether 1 cup of labban daily alone cured the underweight, at least it is a good development that women start to give milk to children older than the baby age.

Women of a village where bonemeal is supplied by RWES put a request to the agents to teach them how to make cheese. This means that the production of milk has increased because locally produced milk used to be a very scarce product. Time seems ripe to talk about new applications of milk (could a bigger part go to the children and pregnant or breastfeeding women?).

Often also the presence of worms was mentioned by the mother and then she was provided with a worm cure, which was bought for her by the advisor in a Rada' pharmacy. The children of the women who got personal advise all increased in weight. It is impossible to indicate the impact of the nutrition education, but in general one could say that the interference of the programme gave profit to the child.

It will be clear that this session has very close links with session II.

3.1.5 Session V: Why and how to clean drinking water

The session concerning cleaning drinking water consists of a discussion about why it is important to clean the water, who especially should drink cleaned water and where and how water gets polluted. The women know very well that boiling cleans the water. But boiling means spending wood. Therefore an alternative is presented: putting transparant water bottles in the sun for 2 hours sterilizes the water (ref.7). Until now the session concerning cleaning of drinking water consisted only of the discussion accompanied by a box of bottles to show. It would be better if the session is followed by installation of 12 bottles on a roof and proposing women to discuss the method in detail after having practiced it for one week: what do the women think about this method? So far I think no water is cleaned yet by sunlight as a habit simply because we didn't stress it enough. Therefore it is also difficult to mention further constraints now.

However at least one woman applied the message of cleaning her drinking water: a grandmother of about 70 years old had very well remembered that the old people belong to the vulnerable groups of society. She also heard that at least the vulnerable groups should clean their drinking water. Despite smiles of her relatives, her first action in the morning nowadays is to boil her own drinking water in her own kettle.

3.1.6 Session VI: How to prevent and treat cough and fever

During the session "how to prevent and treat cough and fever" especially local practices are discussed. The local treatments appear good and relieving*. People like to hear this and feel less dependent of the doctor.

The preventive side of the lesson makes people laugh and think. If we indicate how women with one shawl clean the noses of all their children they laugh: women want their children to look clean, not realizing that they spread the cold in this way. It is proposed to give every child its own cloth to clean its nose. Also the usefullness of underware and proper shoes is discussed. Children refuse to wear shoes because they don't fit well. The only solution would be that fathers take their children to buy proper shoes. The discussion initiates thinking about the subject. But to really make people change, more time and discussion (also with the fathers) is needed.

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*The local treatments mentioned are:
-in case of cough: put "Vicks" on chest or fry an onion with tomatoe and egg, hang over the pan while frying and inhale the steam, eat the dish when ready
-in case of fever: avoid warm clothes, in case of severe fever put cloths soaked in cold water on forehead and back, shouders and chest.

The women think the discussion on "when to go to a doctor" very informative not in the last place because following their own intuition appears to be quite reliable. The session stimulates their self-consciousness concerning taking care of your health yourself.

3.1.7 Session VII: Physiology of woman concerning conception

This session concerning physiology of conception and family planning attracts many women with many different questions: on one side women who want to know how to limit the number of children and on the other side women who have problems in getting pregnant. In fact the session should be split: one focussing on anti-conceptives, the other on conception. This is not done because family planning is a sensitive subject and should not be discussed in a separate session. So far the session is mainly informative, a lecture about how conception takes place and how it could be stimulated or prevented.

Getting some insight in how conception takes place and how a child lays in the mother's body is wellcomed very much. Realizing that they do not only bear the child but also provide it with half of its characteristics caused happy surprise with the women. This part of the session takes quite some time. Then the specific questions follow: about family planning and about how to get pregnant.

A constraint in the discussion about family planning is that women often cannot or don't dare to discuss the item with their husband. In fact the discussion should rise to another level: why don't they dare to talk with their husband and what can they do about it. But this is a very sensitive topic, especially for a foreigner to discuss.

Because not getting pregnant is one of the most terrible things that can happen to a woman in Yemen the discussion about how to get pregnant is important. Possible causes should be discussed in the group, but as important is the attention for the individual woman to find out whether there are factors causing infertility which may be solved.

3.1.8 Session VIII: Use of vaccination

Women asked for a lesson about the reasons for vaccination because as they said: they tell us on television that vaccination is important, but we don't know the illnesses they are talking about. The lesson attracted many women, who wellcomed the explanation of the illnesses. Probably the lesson did not increase the number of children who came for vaccination - people are convinced of it being good - it only made things clearer to the women.

Additional points discussed were the necessity of completing the vaccination schedule and the possibility of children being ill the evening after vaccination. Also it was explained in simple words how vaccination works. Because we started with showing slides, attention afterwards was less. The combination of showing slides and further

explanation is not very successful, attention for verbal explanation then is minimal. Slides show as such however was very popular (see 3.3).

3.1.9 Session IX and X: How to prepare cabbage and cauliflower

As malnutrition is a serious problem in the region, nutrition education needs much attention. The most attractive way to do this is by means of cooking demonstrations. During the cooking ample time is available to stress certain important points about nutrition: frequency of eating, feeding of underfives, necessity of vegetable consumption, possibilities to preserve vegetables, promotion of vegetable gardens, trying to take away constraints of good nutrion. So far cabbage and cauliflower cooking demonstrations were carried out. People like to hear about new ways of preparing food*. The recipes chosen for a demonstration are one meal similar to the traditional way of cooking, one meal a bit more 'modern' and one extra meal, e.g. an application as children's food or a salad.

All women who usually visit sessions attend these cooking sessions too.

3.2 Discussion on inputs and benefits

The programme focusses mainly on the profit for the individual: how to take care of one's own, or one's family's health. Only in case of environmental health a link is made to village level.

At the moment, if ever, nothing definite can be said about the economic benefit of the programme. For the moment the fact that health education is still in the pilot stage implies that the inputs outreach the outputs.

So far the programme didn't ask anything from anybody in the village in economical terms, except time. It is always tried to find solutions which don't cost anything extra beside ordinary daily living costs, e.g. ORS solution is made of water, sugar and salt. Only lately we started to show things which are for sale in Rada' and which can have a positive effect on health, e.g. underware for children and vitamine syrup, but these examples always go together with examples that don't cost anything.

Regularly the advice is given to visit the MCH-clinic in Rada'. This is often not possible for women: either because the transportation is too expensive (from Suar YR 100,- go and return, thus YR 500,- to complete the vaccination scheme for 1 child), or because no

*In February 1989 the cooking demonstration on cauliflower was repeated in Suar. It appeared that one of the recipes, the Yemeni one, needed not to be repeated. The women told us that they prepare this dish regularly nowadays.

male family member is present to accompany the woman. A possibility to diminish this constraint is that the village sends a woman to Rada' to be trained as a LBA or PHW.

Unfortunately we see in Yemen happening the same as almost everywhere: to find a little money for prevention is much more difficult than to find a lot for cure.

Although sofar no economical inputs of the villagers are requested, women more and more express constraints they feel in taking care optimally for their family's health (see also 3.1 and 3.3.3). Constraints which can be solved only by investing a lot of money: chimneys, improvements in kitchens, improved toilets, and last and most expensive: a water supply system with home connections.

That the women think that the health eduation sessions are useful can be concluded from the fact that the number of visitors is constant or increasing. Also it may be illustrated by the next quotation: "We hear a lot on the television about health. But most of the time the things these doctors tell us to do are too time consuming for us, or are not realistic in our village. The health education sessions help us to apply in our village what they tell on television."

3.3 Extension approach

3.3.1 Introduction method

The method of introduction (see 2.4.1) is the simplest and the most logical one in this context and needs no adjustment. If in future the programme shifts to other villages these will also be concentration villages of RWES. Thus knowledge will be available in the section about active women in these villages. Preference will be given to villages where besides RWES also the Sanitation sub-Section is active.

In all villages it took time before health education was running: In Az Zuab hardly any woman visited the sessions in the beginning, in Suar nobody had a house available for the education, in Al Hajar due to a lack of credibility of the LBA, women stayed at home, in Hayd al Majil we had to cope with a male family member who tried to avert our activities. In every village the current problem delayed the work for at least two months. In every case we have considered to stop working in that village. It will be good to keep this in mind if in future health education is started in new villages.

3.3.2 Combination of knowledge transfer with new practices

The combination of knowledge transfer and introduction of new practices, techniques or skills (see 2.4.2) is an effective way to stimulate acceptance of the message. As health education is quite abstract, practising a new technique during the session makes the message more tangible. Thus the session is interesting for a broad audience: everyone learns something new she can apply and which is

tangible and visible while in addition knowledge is presented which contains elements from concrete to abstract, thus serving the broad audience.

Also the more concrete the subject of the session, the easier it is for the extension agent to guide the session.

3.3.3 Participation

Indeed it appeared that as more health education sessions take place, more people participate. As can be seen from Table 2 in 2.5.2 Az Zuab is the village where most sessions have taken place. Here more and more the initial hesitation disappears. The women realize that the knowledge of the advisor is limited and that their inputs are a prerequisite to come together to applicable solutions for their health problems. As a result a pleasant atmosphere has grown of friendship and respect. In this atmosphere useful messages for health education develop.

The fact that increased confidence can lead to constructive discussions is illustrated by the next "event":

One day all of a sudden a woman who used to be a passive listener, started to discuss quite emotionally the constraints she feels in trying to be a good mother: she washes her son every morning but he returns home dusty all over within half an hour, he suffers from worms every few months despite her efforts to prepare food hygienically.

The subjects she expressed were not really linked to the current session, but what happened was that she finally overcame her shyness. The outburst resulted in a very constructive discussion among the women present about their constraints; a real rural development session for women.

3.3.4 Accompanying health education by technical adjustments

The solution for the constraints mentioned by women often are beyond the programme of RWES: "I'd like to have a nice clean kitchen, but how is that possible when the kitchen and oven are made of clay, how can I ever keep this clean?" "My mother has to bake the bread because I suffocate in the smoke". "If we would have water taps in our houses it would save us a lot of time, a lot of effort and it would be much easier to keep the water clean. Now we spend four times a day almost one hour to fetch water."

Health education must be supported by technical adjustments. Here RWES meets constraints in application: the involvement of men is needed, money is needed, the Engineering Section of RIRDP is needed.

However if the discussion results in this kind of remarks then also attention should be paid to them.

3.3.5 Size of the group

The outburst mentioned in 3.3.2 took place on a day that the session was only visited by a few women.

One tends to to think: the better attended the sessions the more effective health education will be. However, small groups and large groups, they both have their pros and cons.

In large groups more people are reached at the same time. As a result more people will talk about the subject later, and thus the spread of the news might be easier. A disadvantage however is that intensive participation is impossible: it appears that mostly only 3 to 5 women really take part in the discussions.

In small groups the discussions go in depth. It gives the audience and the advisor more opportunity to ask and tell profoundly about a certain subject. Women who normally keep silent tend to use the opportunity of a poorly visited session to come up with their questions. Small sessions provide the advisor with detailed information that can improve the quality of the message. But of course less people are reached at the same time.

As both types of gatherings have their specific profit it is important to use them as they occur: also if people did not expect us to come for education we tried to stay and have more small-scale discussions with women.

3.3.6 Limitations of the current extension approach

The approach of health education as carried out so far is very promising. It has some important limitations however:

- It takes quite some time and effort to have participation develop. In the beginning women feel confused because they don't understand what you expect from them.
- The sessions can take unexpected directions. Leading such discussions requires good knowledge about health and skill in group discussion leadership. Extension agents can not be expected to be able to lead these discussions in the near future.
- As the sessions take unexpected directions also problems come up which can not be solved by the RWES. Involvement of third parties asks for a level of organization which cannot be expected from the extension agents.

3.4 Facilities used in the villages

In all four villages the initial intention was to have health education taking place in the house of the women leader. In three of the four villages problems occured.

In Suar and Wadi Tha it was decided to rent a fraj which was

going to be a neutral place. In Suar this solution is very satisfactory, the centre in Wadi Tha is going to be used soon.

In Al Hajar it was decided to shift to the room of the primary health care worker. This resulted in more visitors. The combination of health activities makes things clearer for the visitors, although a negative point is that we still are more identified with curative care now *.

Only in Az Zuab we still use a personal fraj as meeting place. Probably this makes it more difficult for members of other families to attend. It is however difficult to say whether a neutral centre would be better.

In a neutral centre women from different families attend. It is however questionable whether these women will discuss their personal problems in public. So far this did not really occur. At the same time it is a fact that the group in Az Zuab is very open and co-operative. It is difficult to say whether this is caused by difference in group composition or by a difference in number of sessions. Any way there is no difference in number of attendants between the two villages.

For the moment we conclude: every village is different. Best is to see what the population proposes. We tend to prefer rented centres: they make you independent of hosts, the women leader doesn't feel obliged to prepare drinks and food, you can come any time you like.

3.5 Organization of a fieldday

In principle the schedule of a fieldday is very functional to meet the purposes of a fieldtrip (see 2.4.5). However the schedule is rarely followed completely:

- Often the women leader feels responsible to provide you with tea and food. She is not available for talking. Or she runs around to collect the people. In case of extension centres this problem does not exist.
- Often it is difficult to say when the session started and when it finished. Women don't arrive or leave all at the same time. Thus also it is difficult to discuss separately with the agents and leaders.
- Some extension agents are illiterate, thus making report writing in the village impossible. As we often return late to Rada' (where we could ask another agent to write down what the visiting agent tells her to) the report writing tends to be forgotten.

As can be seen from the data about field visits given in section 2.5.2 a number of field visits are made while no health

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*Although primary health care should mainly consist of preventive care, primary health care workers in Yemen (A.R.) are looked at as curative health workers by the villagers (see also Annex VI, Al Hajar).

education session took place.

Besides the reasons given in 2.5.2, cases in which a session was not planned to take place, it also occurred that sessions were cancelled on the spot. This mainly occurred in agricultural busy times (October, November) and in Ramadan. Women are too busy or too tired to attend. To what extent this happens differs per village. The women in Az Zuab are very enthousiastic and they organize their work in such a way that they still can attend the sessions although they are busy. In Al Hajar as well as in Suar we were asked to postpone the sessions till after harvest time.

Also occasional problems cause the cancelling of a session as mentioned in 3.3.1 e.g. no house available (Hayd al Majil, Suar), no interested women (Al Hajar, Az Zuab), family conditions like funeral, mourning, quarrel (Hayd al Majil) (see annex IV).

3.6 Quality and effect of audiovisual materials

Despite repeated efforts (see 2.4.3 and 2.5.4) no suitable extension materials (adjusted to rural life and understandable for the illiterate women) could be found in Yemen. Best is to make or assemble own extension materials which fit the sessions.

It was not so important what type of materials are used. In general any material shown received attention and made discussion easier. Surprise increases attention. Therefore it is advisable to vary materials as much as possible: drawn flannel graphs, photos, slides, T-shirts, products bought from shops, preferably something else every session. Surprise and laughter stimulate the sessions.

The extension material we use most consists of examples from the daily life. Among the audience an example is looked for to illustrate what we mean: a child having dirty nails, a child refusing to wear its shoes, chicken running around in a kitchen etc..

Up to a certain extent materials are provided by women e.g. during cooking demonstrations a woman grinds the garlic in her kitchen, women in Az Zuab prefer to bake khubz instead of us bringing ruti from Rada', if ORS-solution is made the mother supplies the bottle, salt and sugar etc..

Twice slides were planned to be shown (see 3.1.8). The sessions attracted many women because slides are something special. Women consider it like video. This worried the advisor a bit: would the men accept that we show slides or videos without them knowing what is shown? The women liked to look at the pictures, however attention for the verbal explanation during and especially after the session was less than in other sessions: slides don't stimulate discussion during the show and make the audience a bit sleepy resulting in quietness also after the show. is finished.

The first time we showed slides things went well, although

many feared the generator that was standing outside while the (ever present) children were running around. The second time however we didn't manage to get the generator running although everything was checked before we left Rada'. This was once and for all for the advisor: no extension materials needing electricity are involved anymore. In the villages during daytime there is no electricity, and taking our own generator, especially if the extension agents are to work independently, will hamper smooth running sessions. As slides didn't appear better aids than others it seems a good decision to exclude video and slides from our regular extension materials.

To the surprise of the advisor the women easily understood abstract drawings. Contrary to what literature suggests (ref.3) an abstract drawing like fig. 3 didn't pose any problem. However drawings containing many elements are confusing like fig. 2. Nevertheless a drawing like fig. 2 is useful in a session: after the women discussed what they saw on the drawing, the drawing appears functional in the following discussion as a central point where things can be indicated that subscribe the new knowledge.

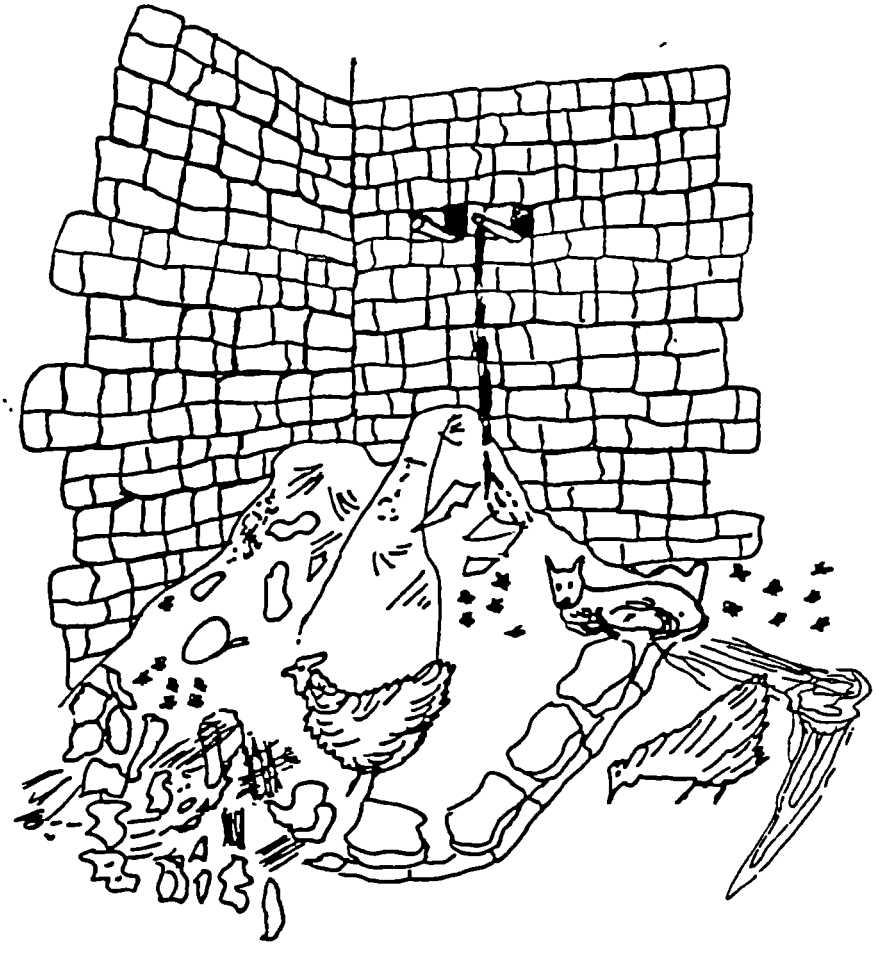

Figure 2 Flannelgraph drawing containing many elements (scaled down) (drawn by Aart v.d. Horst, sanitary engineer RIRDP)

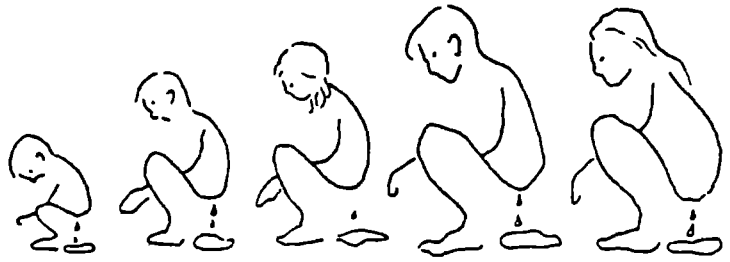

Figure 3 Simple abstract flannelgraph drawing (scaled down)

The influence of television appears to be very important. All women regularly watch television and see a.o. the health education programme. This accompanied with information men bring from the USA, Brittain and Saudi Arabia as well as the information children take home from school, makes that the "triggering" phase in health education has passed already at the moment we enter a village. Women express an interest in health education and often health information we bring is not completely new for them. One could say that RWES has a function in making the television information, foreign information and school books' information applicable in every day's life.

Television programmes, as well the informative programmes as the commercials could supply the extensionist with nice entries for the extension.

3.7 Training of extension agents

The extension agents are capable to teach women a message the women would like to learn about. They are capable to demonstrate new techniques, to explain and to discuss with the women about its use. However to lead an opinion raising discussion is too difficult.

A very important limitation for the agents in their role of session leader is their status. Proposing people to change their way of doing, the way of doing they learnt from their mother or grandmother, asks for credibility of the one proposing this change. Not being married, not having children and even not having a sound knowledge of health reduces the credibility of the agents.

Often health education sessions take unexpected directions. The health knowledge of the agents is too limited to have an answer when the conversation changes course drastically.

In 2.5.5 is mentioned what training the extension agents have received in 1988. Although the actual number of lessons (19) is close to the planned 22 lessons, this training appears to be far insufficient for the extension agents to be capable of "handling" independently 8 subjects in the villages (see 1.3 and ref.6, p.12).
Illustrative in this respect is the remark made earlier about the reporting capacities of the agents which are still poor after an average of 7 reports per village and a lesson spent on it (see 2.5.3).

It appeared that at least 2 lessons are required for the girls to grasp the theory of one session completely. This in case the girls have had the basic training during the course for female rural extension agents in 1987*. Refreshing the knowledge by means of another lesson, if only of half an hour, appeared to be needed when a subject had not been taught for some time.

The educational degree of the agents is low, non of them having finished primary school. Therefore they read and write slowly.

More-over health is a complicated subject. To have an idea of how habits in every day's life influence health, an overview of the many interrelating aspects of health is required. The agents do not even have a basic knowledge about a human body, so they should be educated from the very beginning. What can then be expected from 19 lessons of half a day? (Note: primary health care workers and local birth attendants receive a fulltime education of 6 to 9 months).

Besides health there is a great need of training in extension science, group dynamics, discussion techniques etc.

Training possibilities are limited. Only Sundays and Thursdays are available for training in all four subjects of the RWES.

The other 2 subjects of the RWES that ask for thorough theoretical knowledge are livestock and agriculture. For these subjects additional specialists can be found outside the RWES to assist in training the girls. In health education however this is not the case: all training is given by the advisor, as one of the many tasks she has to carry out.

3.8 Training of women leaders

So far only one women leader is seriously trained (see 2.5.6). From this training it appeared that if the field visit schedule (see 2.4.5) is followed, enough time is available to train the women leader up to the required standard. This in case the advisor accompanies every fieldvisit. But if in future the advisor ceases to accompany every fieldvisit the situation changes. The extension agent can take over part of the training if she is provided with tools to do so. In this respect the evaluation form for women leaders which is added to the subject file (for example see Annex III) will be of great help for the agent, but also for the advisor to check how the training progresses. If this situation develops it should be considered whether additional training of women leaders should take place in Rada'.

It was stated above: 'if the fieldvisit schedule is followed'. But often the women leader is busy being a host. Because the relation with her is one of voluntary cooperation it is difficult to tell her to be available for training.

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*Three months' full-time training in the RWES subjects

3.9 Needs to improve the role played by men

So far men didn't play an active role in the health eduation. But with the expression of need for technical adjustments at household level (chimneys, improved kitchens) and certainly if we talk about community level (watersupply scheme) men need to be involved. This because men decide about greater sums of money, they decide on what happens outside the house.

3.10 Needs to improve the role played by the Sanitation sub-Section and third parties

The Sanitation sub-Section tried to concentrate its activities in RWES villages, on condition that the population agrees to contribute to the costs. So far Suar and Al Hajar showed interest to establish a garbage disposal programme. In Suar the programme is running now. The RWES discussed with the women the use of the programme and investigated whether improvements were wanted. The women appeared satisfied and so far don't feel a need for changes. RWES and the Sanitation sub-Section keep in contact about future activities e.g. to organize a village cleaning day. In Al Hajar the garbage disposal programme is still in the designing stage. A discussion with the women about the profit of such a programme has taken place already. The next step is to be taken by the population.

Contacts with the MCH-clinic and RWSSP are satisfactory and meet the needs.

A very good development is what happened in Az Zuab with the women leader. After the woman was trained as women leader she was sent for training as local birth attendant. In this way she first learnt about preventive health care, got aware of possibilities of community development, and then was trained in curative health care. In this sequence the chance is bigger that preventive health care keeps a place in her heart than in case of the other way around.

This is a result of cooperation between the MCH-clinic and RWES. The MCH-clinic together with the health extensionist of RIRDP thought it good if somebody from Zuab would be trained. The procedure the MCH-clinic follows to recruit people is to ask the LCCD to select suitable women. The MCH-clinic however knew about the work of the women leader and thus proposed her. This kind of cooperation should happen more often.

4 CONCLUSIONS AND RECOMMENDATIONS

The health education programme can be devided in two parts:

a. health education in which the health education advisor has a major role, with emphasis on the pilot villages and on the development of new messages, and
b. health education as carried out by the extension agents, transferring the developed messages to more villages.

During 1988 health education was in a pilot stage. Messages were to be developed, agents to be trained, materials to be made etc. During sessions the advisor was the leading person (a.).

In the way health education was carried out during 1988 it can not be carried out by the extension agents. Therefore the programme as far as it will be executed by the agents (b.) should be altered at least concerning the following two points:

- participation should play a less prominent role;
- the subjects of discussion should be chosen in a way that they are easier demarcated.

So far extensive participation was of utmost importance because the detailed messages were still to be developed. Message formulation could only happen if the women thought with us, came with suggestions and explanations about how they practice things.

From the experience gained in 1988 a number of messages can be formulated which the extension agents are able to handle independently. Of course when the agents carry out these sessions involvement of the target group remains essential, but it will be limited to explaining and motivating discussions. In these sessions the brainstorming discussions which were needed in 1988 are not required anymore. It was this brainstorming feature that gave the unexpected directions to the sessions.

To be able to limit the subjects of discussion it is advisable to choose a different, a more tangible entrance for discussion: not the health problem (e.g. cause of diarrhoea), but a product or an activity (e.g. to plant trees on refuse water).

If you depart from a health problem you face the difficulty that most health problems are caused by a number of habits. Discussing the health problem thus asks for discussing all those habits. The session becomes too complicated and the subject is difficultly limited.

Starting from a product or an every day's activity the subject will not only be less complicated, but also appeals more to the (healthy) women, thus probably keeping their attention more easily.

When formulating these concrete subjects it is most logical to start from RIRDP activities, e.g.:

- home gardening programme: consumption of vegetables and fruits, foodconservation (cooking demonstrations);
- bonemeal programme: preparation and consumption of milk, nutrition/hygiene, childrens' nutrition;
- chicken programme or local availability of chickens and eggs: consumption of meat and eggs, nutrition;
- bedcovers programme: home cleaning, hygiene;
- garbage disposal programme, forestry trees on waste water: village cleaning, environmental hygiene;
- shallow well improvement programme: use of water, general hygiene.

Some current sessions that can not be reformulated in this way are important from a health point of view. It should be considered to maintain them, e.g. explanation of the growth chart and regular weighing of the children. These sessions could be carried out when a programme is running already for some time in a village and women are convinced about its use.

In the new approach RIRDP health education will be associated less with illness. This helps to get rid of the "doctor's" image. The activity becomes more clearly an RIRDP activity, a rural development activity. The dividing line between the work of the birth attendant or primary health worker and the rural extension agent becomes clearer.

At the same time the decision should be taken, in consultation with the MCH-clinic, that RIRDP does not interfere with MCH-tasks. So, it should not be tried to integrate a vaccination programme in the health education programme of RIRDP. (Of course if a village asks for a vaccination programme the MCH-clinic will be informed). This choice is made not only because of the reasons mentioned above but also because it decreases the level of organizational skill requested from the extension agents.

As the demand of participation decreases also a less intensive relation with the women in a village is needed. As a result the necessity to stay in a village for a long time decreases. It becomes easier to connect to the other activities of the RWES e.g. cooking demonstrations including the nutrition education can be given in village X at the moment of harvesting the home gardens, while education about milk is given in village Y because women just noticed the increased milkgifts resulting from bonemeal supplements.

At the same time it may be easier to establish closer links with the Sanitation sub-Section. Here it should be kept in mind that talking about hygiene is a sensitive subject. The suggestion that people are not hygienic is in fact insulting them of not being good Moslim. On condition that messages are developed which contain handy tips, extended cooperation with the Sanitation sub-Section is feasible.

Health education, getting a programme connecting function will enhance integration of the RWES programmes:

- it will be a continuation of these programmes (e.g. bedcovers sewing followed by instructions how to keep the covers clean);

- it will stimulate current programmes (homegardens: new vegetables are wanted more if their preparation is known),
- it initiates requests from villages to start new activities (giving health education connected to bonemeal may initiate a request for homegardening).

To enable the agents to work independently the subject files are of utmost importance. The files provide them with the information they need for a session and supply them with a checklist for the training of the women leaders.

At this moment a number of sessions can be reformulated in the way described above but for other sessions the available information is still too limited. Therefore the health education programme as it is going to be carried out by the agents should be accompanied by a further development of the programme.

It is advisable to continue the work in the four pilot villages. Here the women are used to participate thus enabling the health advisor to collect a lot of new information. Also the reformulated sessions can be tried out here easily. Although the women heard the same information before, it is presented in a new form. This repetition is usefull for the target group and they receive it enthousiastically (as was experienced in Az Zuab). As the agents know this audience already it is easier for them to guide a session for the first time.

Because of the intensive contacts of the advisor with these villages, she can also pay attention to constraints that lay outside the RWES field but have to do with health: the wish for chimneys, kitchen improvement and the construction of a watersupply system. She can develop ideas about the need and the way to involve men or third parties to a greater extent. This deep involvement in the villages may lead besides the formulation of new messages for education to the formulation of the need for new activities that may be valuable for health improvement (e.g. chimney design).

For a proper development of messages a translator is of utmost importance to cooperate part-time with the health education advisor, as a Dutch person does not reach a thorough enough knowledge of Arabic to grasp well the subtlety of a subject.

The training of extension agents should continue to receive much attention. The training should be connected to the sessions that will be carried out. After a session has been reformulated or a new message has been developed this should be followed by a lesson on how to carry out the session and informing the agents about all the knowledge they need for this session. Whenever possible other experts than the health education advisor from inide and outside the project should be involved in the training.

Above recommendations and suggestions will be thoroughly discussed in May 1989 with Ms. Dia Timmermans, health education backstopper and Ms. Liesbeth Zonneveld the successor of the present health education advisor Ms. Marion Derckx as well as with the RIRDP management. Then decisions will be taken resulting in a new workplan.

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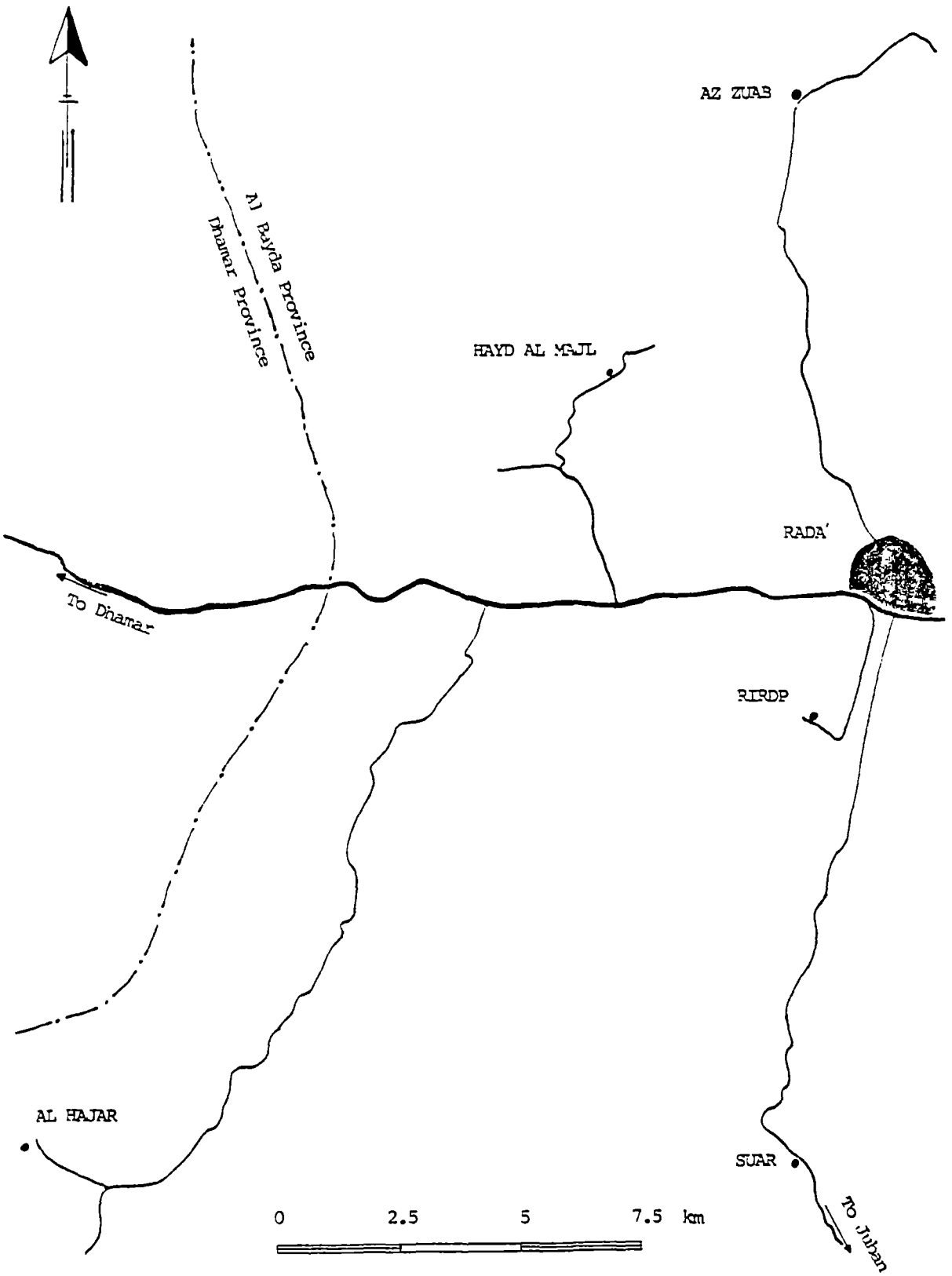
ANNEXES

ANNEX I
LOCATION OF THE FOUR HEALTH EDUCATION PILOT VILLAGES



ANNEX II
RESULTS INITIAL NEEDS ESTIMATION

Main health problems and interests to learn about health as mentioned by women during orientating visits to villages, reported according to sequence of mentioning:

Al Hajar:

- Problems: ear infections, running noses/colds, sore throat (especially with women), itching.
- Wishes to learn about child feeding, about how to get rid of the problems mentioned.
- Date: March '87
- Number of women: 7

Zachem:

- Wishes to learn about pregnancy, how to treat a newly born, fever, diarrhoea, cough, headache.
- Date: October'87
- Number of women: 4

Majlayn:

- Problems: many deaths of diarrhoea (with 3 of the attending women half of their children)
- Wishes to learn about child diseases, how to prepare children's food in a hygienic way, cleaning, family planning
- Date: October '87
- Number of women: 4

Suar

- Problems: worms, diarrhoea, cough, sore throat, tuberculosis, thick necks (advisor concluded: goitre), kidney stones, rheumatism, stomach problems.
- Wishes to learn about how to avoid and how to get rid of these problems.
- Date: December '87.
- Number of women: 27

Az Zuab:

- Problems: fever, cold, diarrhoea, vomitting
- Wishes to learn: no specific wishes, except how to handle the problems mentioned.
- Date: December '87
- Number of women: 7

Ghawl Azraq:

- Problems: malaria, fever, cough, chicken pox, skin problems
- Wishes to learn: Amongst others how to avoid and to get rid of the problems mentioned, no specific wishes.
- Date: December '87
- Number of women: 7

Hayd al Majil:

- Wishes to learn about: cleanliness, diarrhoea, weight of children, food for children, health of children, health of women.
- Date: July '88
- Number of women: 10

ANNEX III
SUBJECT FILE EXAMPLE: TREATMENT OF DIARRHOEA

1 AIMS

Overall aims of the session are:

- To diminish the incidence of diarrhoea in the village.
- To provide women with a possibility to treat their children suffering from common diarrhoea.
- To help women in deciding to go to the MCH-clinic or not.
- To train extension workers so that they can handle the session according to the set objectives "objectives 2".
- To train women leaders so that they can advise the women according to the set objectives "objectives 3".

Activity A: to teach how to treat a child with common diarrhoea

Objective 1: To improve the knowledge concerning diarrhoea

Objective 2: The extension agents should be able to explain to the group of women properly:
a-that babies may die within 2 days from severe diarrhoea because of dehydration;
b-that frequently returning diarrhoea may cause underweight;
c-the relation between diarrhoea, underweight and other illnesses;
d-that diarrhoea means a sick stomach which does not handle properly anymore the food and water which is offered to it;
e-that ORS-solution does make that the stomach functions better again;
f-that ORS prevents the child from getting weak and makes it keep its appetite;
g-that the child should be given any food it likes as long as the diarrhoea lasts and that it should be given extra food while recovering, especially when it is a low-weight child;
h-that the best prevention against diarrhoea and other illnesses is a good weight;
i-that the child should visit the MCH-clinic in case diarrhoea is not over after 3 days.

Objective 3: The women leader should be able to explain to individual women properly: see obj. 2.

Objective 4: The attending women should be able to indicate:
- that diarrhoea is dangerous because of possible dehydration
- the relation between diarrhoea, underweight and other illnesses
- the profit of ORS-solution
- that the child should be given any food it likes as long as the diarrhoea lasts and that it should be given extra food while recovering, especially when it is a low-weight child;
- that the best prevention against diarrhoea and other illnesses is a

good weight;
- that the child should visit the MCH-clinic in case diarrhoea is not over after 3 days.

Activity B: to teach how to make ORS-solution

Objective 1:
- To provide women with a tool to relieve the consequences of diarrhoea
- To shorten the periods of diarrhoea with children.

Objective 2: The extension agents should be able to explain to the group of women properly:
a-how to make ORS
b-that too little salt won't help the child and too much salt will make the child vomit; rather too little salt than too much!
c-that in case the child vomits the solution should be given bit by bit
d-that in case of vomitting ORS stops the vomitting and increases the food acceptance

Objective 3: The women leader should be able to explain to individual women properly: see obj. 2

Objective 4: The women should be able to make ORS and to explain how it is to be used.

Activity C: To refer or not to refer a child to the MCH-clinic in case of diarrhoea

Objective 1:
- To stimulate the treatment of high risk children who need treatment by a doctor.
- To prevent women from spending money to go to Rada' without a need for it.

Objective 2: The extension agents should be able to distinguish between a child suffering from diarrhoea who needs doctor care and a child with a common diarrhoea.

Objective 3: The women leader should be able to mention in what cases the child suffering from diarrhoea should be sent to Rada'

Objective 4: The women should be able to mention whether they should go with a child suffering from diarrhoea to Rada' or not, and why.

2 INSTRUCTION FOR EXTENSION AGENTS

Preparation at the office

Check one day in advance:

- Check the report you wrote from your last visit. What appointments did you make? Did you promise to do something and did you fullfill your promise?
- Check whether all materials you need for the session are available and in a good condition. Should leaflets on ORS-preparation be copied?

The day of your visist:

Take with you:
- sugar
- salt
- leaflets on ORS-preparation
- checklist on types of diarrhoea
- weighing scales
- growth charts
- flannelgraph of growth charts

Preparation at the spot

- have the weighing scales and growth charts ready,
- put the flannelgraph on the flannel board, have the dots ready.

Contents of the explanation

"Are there any children here who have diarrhoea? What do you do with your child when it has diarrhoea?"

The mother will answer. Encourage her if the practices she does are good. If there is any practice you don't think good, ask her why she is doing this. Often the reasons why are logical. If you think the practice is not good, explain her then logically why not and tell her what to do instead. Only if the woman understands she will accept your new advice.

Summarize the different good practices the women apply. Then give your lecture:

"Diarrhoea is dangerous. Not if you as an adult have it only once for one day. But babies for example can die within 2 days if the diarrhoea is severe. Diarrhoea that comes and goes does not look so

dangerous. The child is not very sick, it often only feels a bit uncomfortable. But in the long run it is dangerous.

How is it possible that a child can die within 2 days from simple diarrhoea? What does diarrhoea do to the body? If a child has diarrhoea, its stomach is sick. The stomach does not use the food or drinks you give to your child properly. As a result the diarrhoea that leaves the child contains a lot of water and salts. But the child needs water and salts. Now if you don't replace these water and salts the child may die.

Like a flower you picked: if you don't put the flower into water it will die soon, if you give the flower enough water to drink by putting it in a glass of water it will stay fresh.

Because the stomach is ill the child often does not have a good appetite also. As a result the body gets too little food every time the child has diarrhoea. And with too little food, the child can not grow well. Therefore we see that children who have frequent diarrhoeas have too low weights. And as we know, in a child who has too low weight illnesses can easily enter. Thus, the child will get diarrhoea easily again, but also will get more easily measles, colds or pneumonia.

So, for you as a mother it is important to prevent diarrhoea in your children and to cure it as soon as possible if the diarrhoea appears.

How should you treat your child when it has diarrhoea?

As soon as you notice your child has diarrhoea, you should make ORS-solution. ORS-solution is water that contains the right amount of salt and sugar to replace the losses of the body. Take a small water bottle (saha), new or old. Fill it with water up to the third ring from the top. Then add two 2-fingerpinches of salt. Shake well and taste the water. The water should be as salty as tears. If it is less saltier the solution will give no profit, if it is too salty the child will start vomitting. If needed, you add a bit more salt or a bit more water. If you doubt: it is better to have too little salt than too much salt!

Then add a handfull of sugar. Shake well. The solution should also not taste really sweet. In fact it should have the taste of tears. Give your child one full glass of this solution every time the child has pasted a stool.

If the child vomits, don't give a full glass at one time. Give it bit by bit, but the child should finish the whole glass before the next bowel movement takes place. For very small children (up to 1 year and a half) it may be necessary to give the solution by cup and spoon. But as soon as the child can drink independently, have it drink by

itself.

I said that in case of diarrhoea the stomach is ill. It does not accept food well anymore. Also it is not capable to keep the water in. Everything runs out too quickly. The solution makes that although the stomach is ill, it still accepts the food and the water. Also often the child keeps its appetite in case the solution is given. Therefore the solution prevents the child of becoming weak.

Give the child any food it likes. Because the stomach accepts the food, your child has the strength to fight the disease. In this way normally the diarrhoea is over within 2 days.

In principle all food is good.
Diarrhoea is stopped by rice, bananas, cooked carrots.
Diarrhoea gets worse from raw vegetables and bran.
Better avoid fat.

After the diarrhoea has stopped the mother should make her child eat more than normally. The child has lost weight during the diarrhoea period, and the child should get back this weight. And if it turns out that the child is low-weight, then it should even gain extra weight to get it stronger, which prevents new diarrhoea attacks.

If the diarrhoea does not decrease and is not over in 2 days, then go to Rada' to the MCH-clinic. Also if the diarrhoea comes and goes, or if blood, pus or slime is seen in the stools. In this case your child probably does not have a normal diarrhoea. In this case it may have worms or amoebas. Tell the doctor what you have done to cure the diarrhoea.

Probably the doctor will prescribe medecines. If you start to give these to your child, it is also the time to start to increase the weight of your child. Give it food more frequently: 3 good meals a day and in between these meals give it something else to eat: a carrot, a banana, a glass of milk, anything. But 6 times a day some food should enter the mouth of your child!

The weight of your child will increase and thus it will become stronger. Illnesses will have more problems to get into the body of your child again.

Repetition and practice to check whether the women understood everything

- Take the growth chart flannelgraph and show that the weight can decrease when a child has diarrhoea. Two examples are added in this file. 1. Show that a child who had a weight just above the lower line

can end under the line because of diarrhoea. 2. Show the second example: the weight of a well-fed child will decrease also, but not till under the under line. Repeat that illnesses easily enter in children with a low weight. And thus it is important that the child has a high weight, so that diarrhoea will not harm the child immediately because the child has the strength to fight the disease.

- Have the mothers who have a child with diarrhoea all make a bottle of ORS-solution. Ask them to explain to you how to prepare this and how often to use it.

- Check with the mothers of the children who have diarrhoea what the diarrhoea looks like. Using the annex " referral to clinic" judge whether ORS-treatment will do or the child needs to go to Rada' or to the nearest health-post.

- Weigh the children who have diarrhoea. Discuss with the mother whether the weight is good or not. If needed make a plan with her how to feed her child. What does the child like very much? Tell about biscuits. In normal life biscuits are not good: they harm the teeth and contain no vitamins. In times of diarrhoea you can give them. The stomach accepts biscuits well and in times of diarrhoea this is more important than the teeth. Although biscuits is no good food, in times of diarrhoea the most important thing is that the child eats something (besides drinking!). People will have noticed that the child does not like foods which contain fat. Give the child what it likes, the fact that the child eats is most important. More important than what it eats.

3. EVALUATION FORM VISITING WOMEN
(to be filled in by extension agent)

(Please fill in the attendance list)

1. Number of married/divorced/widowed women

2. Number of older girls

3. How many women had a child suffering from diarrhoea?

4. How many of these women made ORS-solution?

5. How many women could explain to you how to make and to use ORS?

6. How many women knew well why diarrhoea is dangerous before the session?

7. How many women could tell you why diarrhoea is dangerous after the session?

8. How many women understood the relation between diarrhoea, underweight and other illnesses?

9. How many women could indicate the right treatment of a child suffering from diarrhoea
-concerning food and drink practices
at the start of the session
-concerning food and drink practices
after your explanation
-concerning ORS-adjustment

Remarks:

4 EVALUATION FORM WOMEN LEADER
(to be filled in by extension agent)

Name women leader: ..... Village: .....
Name extension agent: ..... Date: .....

Ask the women leader the following and indicate whether she gives a good answer. If she appears to give the wrong answer indicate this. Next you repeat your explanation and check whether she understands now. After having posed all the questions repeat the questions which were initially answered wrongly. Indicate again whether she gave the right or wrong answer.

1. Why is diarrhoea dangerous?
   Good answer:
   1 because a child can die from it because of dehydration .....
   2 and in case of frequent returning diarrhoea it may cause underweight .....
2. If a child has diarrhoea, which part of the child is ill?
   Good answer: the stomach (and intestines) .....
3. What happens with the food and drink if a child has diarrhoea?
   Good answer: it runs out of the child without being used by the body .....
4. What drink and food is good for a child?
   Good answer:
   1 any food and drink the child likes. .....
   2 rice, cooked carrot and bananas .....
   3 not too fat. .....
   4 no raw vegetables and bran .....
   5 and ORS of course .....
5. What does ORS-solution do?
   Good answer:
   1 it makes that the stomach accepts food and drink again .....
   2 it replaces the water and salts that the child looses .....
   3 and it makes that the child keeps its appetite .....
   4 and keeps strong enough to fight the illness .....
   5 also it often stops vomitting .....
6. How should ORS-solution be prepared?
   Good answer:
   1 water till third line in small water bottle .....
   2 two pinches of salt .....
   3 taste the water .....
   4 too little salt no use .....
   5 too much salt gives vomitting .....
   6 one hand of sugar .....

7. How should ORS-solution be used?
   Good answer:
   1 one full glass after every bowel movement .....
   2 by cup and spoon if the child is very small .....
   3 bit by bit (cup and spoon) if the child vomits .....
8. What should you do if the child also vomits?
   Good answer:
   1 First thing you do is giving ORS bit after bit .....
   2 When the child does not vomit anymore you try whether it accepts light food again .....
9. When should a child having diarrhoea go to the doctor?
   Good answer:
   1 If diarrhoea lasts more than 2 days despite ORS-treatment .....
   2 If diarrhoea is not watery but pulpy, mushy .....
   3 If diarrhoea contains blood, pus or slime, also if only once blood was seen! .....
   4 If diarrhoea comes and goes; e.g twice a day or one day there is, the other there is not .....
   5 If the child is troublesome, has stomach ache. .....
   6 If the child has weakened very much, is very malnourished.....
   7 If worms were seen in the faeces. .....
10. What is the best prevention of diarrhoea?
   Good answer: a good health, say a good weight .....
11. Tell something about the relation between diarrhoea, malnutrition and other illnesses.
   Good answer if it is clear to her that 1 of the 3 causes the other. And to prevent this the parents should take care that the weight of their child is good. .....

ANNEX IV
FIELD VISITS IN 1988

JANUARY-MARCH
number of fieldvisits: 13
number of cancellations: 0
number of health sessions: 10

No field visits in January because of absence advisor

VILLAGE VISITED	TOTAL VISITS	ATTEN-DANTS	MAIN SUBJECT DURING VISIT (s=session)
Suar	7	58	weighing and basic health survey (s)
		16	consultation shaykh about TB-problem + sputumcollection + control children at risk (s) + mantoux test cows
		20	sputum collection
		20	sputum collection + control mantoux reaction of cows + consultation shaykh
		17	cooking demonstration cabbage
		7	cooking demonstration cauliflower (s)
		10	cure of diarrhoea (s)
Az Zuab	2	14	cooking demonstration cabbage (s)
		11	weighing and basic health survey (s)
Ma'sub Ar Rasam	1	15	health needs estimation (s)
Ghawl Azraq	1	10	cooking demonstration cabbage (s)
Al Hajar	2	8	consulting PHC-worker and LBA (s)
		56	weighing and basic health survey (s)

APRIL-JUNE
number of fieldvisits: 16
number of cancellations: 2
number of health sessions: 12

6 weeks no field trips because of Ramadan, 'Aiet and absence advisor

VILLAGE VISITED	TOTAL VISITS	ATTEN-DANTS	MAIN SUBJECT DURING VISIT (s=session)
Suar	4	9	cure of diarrhoea (s)
		-	find house to continue activities
		0	children's nutrition (cancelled: Ramadan)
		8	children's nutrition (s), looking for centre
Az Zuab	6	12	weighing children and basic health survey (s)
		20	cure of diarrhoea (s)
		9	children's nutrition (s)
		12	causes of diarrhoea (s)
		9	growth nutrition (s)
		12	children's food (s)
Al Hajar	6	20	cure of diarrhoea (s)
		8	skin problems (s)
		15	skin problems (homevisits)
		0	causes of diarrhoea (cancelled: Ramadan)
		6	causes of diarrhoea (s)
		14	children's nutrition (s)

JULY-SEPTEMBER
number of fieldvisits: 31
number of cancellations: 3
number of health sessions: 17

VILLAGE VISITED	TOTAL VISITS	ATTEN-DANTS	MAIN SUBJECT DURING VISIT (s=session)
Suar	7	-	2 visits to check progress centre
		10	cure of diarrhoea (s)
		9	treeplanting (site selection)
		9	treeplanting
		20	growth chart + weighing of children (s)
		21	causes of diarrhoea and environmental health (s)
Az Zuab	8	15	weighing of children (second group) (s)
		9	clean drinking water (s)
		0	weighing of children (other group), (cancelled, no house available)
		4	conception (s)
		10	health care during pregnancy and after delivery (s)
		8	weighing of children + growth chart (s)
		20	vaccination lesson (s)
		121	vaccination + weighing of children (s)
Al Hajar	5	0	growth chart (cancelled, arrived too late)
		12	weighing of children (s)
		0	growth chart (cancelled, population not interested according to health workers)
		14	children's nutrition + growth chart + weighing (s)
		6	fever + growth chart + children's nutrition + weighing (s)
Hayd al Majil	9	10	felt needs estimation + cure of diarrhoea (s)
		15	weighing and health baseline study + cure of diarrhoea (s)
		15	growth chart + weighing of children (s)
		17	causes of diarrhoe (s)
		5	treeplanting (site selection)
		5	treeplanting (species estimation)
		5	treeplanting (final inspection before planting)
		7	treeplanting
		7	treeplanting (follow-up)
Qarn al Asad	2	4	treeplanting
		4	treeplanting

OCTOBER-DECEMBER
number of fieldvisits: 23
number of cancellations: 1
number of health sessions: 15

October/November women very busy because of harvest time
advisor 2 weeks absent

VILLAGE VISITED	TOTAL VISITS	ATTEN-DANTS	MAIN SUBJECT DURING VISIT
Suar	9	5	using clean drinking water (s)
		9	treeplanting (follow-up), discussion garbage disposal system (homevisits)
		-	take measurements of centre for furnishing
		-	bringing furniture
		6	centre ready, discussing new start (homevisits)
		68	vaccination and weighing of children (s)
		4	personal consultation concerning TB and cough and fever; actual reason of visit for organizational reasons
		6	cough and fever (s)
		64	vaccination + weighing (s)
Zuab	8	9	treeplanting
		(94	vaccination (by MCH-clinic))
		9	treeplanting (follow-up)
		20	forestry lesson combined with health (s)
		14	cough and fever (s)
		108	vaccination and weighing of children (s)
		0	fysiology of pregnancy (cancelled, we were not expected)
		28	fysiology of pregnancy (s)
		15	water for prevention and cure (s)
Al Hajar	3	7	planning of garbage disposal programme (s)
		2	consultation with LBA and PHW
		7	meeting to plan garbage disposal programme (s)
Hajd al Majil	2	1	treeplanting (follow-up)
		-	organizational reason, problems centre
Sawman	1	10	comments of women concerning shallow well improvement (s)

ANNEX V
STANDARD FORM VILLAGE FILE

Village ..... Region ..... Date .....
Extension agents .....Women leaders.....

PURPOSE OF VISIT

REPORT HEALTH EDUCATION SESSION
Subject
from ..... till ..... number of women .....
theory

demonstration

subject next time

OTHER ACTIVITIES (in case of personal contacts write down: name, subject discussed, advice given or appointment made)

DISCUSSION WITH WOMEN LEADERS AND EXTENSION AGENTS (e.g. what theory discussed in depth, constraints of the work, problems in the village, review session, subjects next session)

APPOINTMENTS (next date, subject, time, place, miscellaneous)

REMARKS

ANNEX VI
THE WOMEN LEADERS IN THE FOUR HEALTH EDUCATION PILOT VILLAGES

Az Zuab

In AZ Zuab a very enthousiastic woman co-operates with us. Because she is illiterate the LCCD chose another lady to be trained as LBA. From that moment the two ladies together started to feel responsible for the sessions. Fortunately the MCH-clinic decided to add a literacy course to the LBA-training so that the first lady was sent also by her village. She is capable to teach the women of her village in our absence. The names of the ladies she has taught are written in a note-book. In future RWES should keep in touch with both ladies.

Suar

In Suar some ladies who like to have extensive training have been traced. However, these ladies also have a great responsibility in agriculture so that they have no more time available than to attend the sessions. At the end of December 1988 the women were at a point of deciding about who is going to be the leading woman.

Hayd al Majil

During the 6th session a lady was asked to be the women leader. She was glad to be so, she and her husband being enthousiastic people, very much respected by the other attendants and curious about innovations although not too young. Unfortunately the same day her brother passed away. After a one month's period of mourning this event was followed by quarrels about the fraj used for exension. Therefore no health education sessions took place for some time. At the end of December 1988 a new fraj was found. After furnishing, health education sessions will restart and thus the cooperation with the women leader.

Al Hajar

In Al Hajar cooperation was sought with the female local birth attendant (LBA) and the male primary health care worker (PHW) in order to have all health activities in the village with the same people. This however appeared not to be the easiest way. The villagers see these people as persons you go to in case you want to be cured. Being invited for "just a talk about health" without any touchable profit like injections or pills disappointed the people and thus they were very difficultly convinced to come.

In case the LBA and PHW would have been open to our participatory approach these problems probably would have been overcome. But unfortunately they were desillusionised in health education. After their education in Rada' they returned to their village full of nice plans. Concerning health education they were told how to do it but never got practical training in it. In addition supervision of the MCH-clinic

never took place except in helping to vaccinate, let alone assistence in the extension part of the job, leaving the health workers with the experience that the villagers appeared not to be ready to listen to the talks of these trained cousins of them. The health workers reduced to vaccinating, curative workers.

The two health workers didn't feel secure in our way of working: in their daily work people expect the "doctor" to be firm, to be the well knowing person who tells what to do. In this way they also handle health education: being convinced about the importance of advises adjusted to the circumstances of the community, they deside what should be done, not thinking about asking the people for their opion.

The LBA noticed that people did tend to overthink health advises if the sessions took place in a participatory way. She liked it. Yet we didn't manage to win her for the approach, not in the least place because her colleague and cousin didn't believe in it, as a man not having been able to attend our sessions.

The advisor, being Dutch, did not have enough knowledge of Arabic to discuss this item thoroughly enough with them, resulting in their opinion about her: a nice foreign lady with nice ideas, but a bit unworldly.

ANNES VII
DESCRIPTION OF THE ATTENDING GROUPS IN THE FOUR PILOT VILLAGES

Az Zuab

The group we have contacts with in Az Zuab is a social unity within the village. In Az Zuab 3 to 5 of these groups exist. The part of the village where we work should be ranged economically a bit below the avarage of the village. This social segment is not the group closely related with the shaykh.

The women of the group we work with in general have good relations with one another. This is illustrated by the fact that they easily lend things out.

Although the women have quite a heavy task in agriculture (heavier than in Hayd al Majil and Suar) they are always present on health education sessions. They tell us they think improved knowledge about health is very important and act accordingly. A very motivated group.

It appears difficult for women from outside the group to attend the sessions, at least there is an emotional threshold. If the sessions are interesting enough (lesson about vaccination, conception) this threshold is easily taken. They say it is "too far away", outside their direct social circle, causing a feeling of "going for a visit", accompanied by all additional social obligations.

It was tried on request of the shaykh to start health education also in the shaykh's part of the village. From our side we hoped that linking to the shaykh's family would increase the number of visiting women (in that time we didn't attract so many visitors yet). Because the appointed woman to be responsible didn't feel like receiving many women in her house this trial did not succeed.

Suar

In Suar an empty fraj was rented to establish our "extension centre" after it appeared no private fraj was available or suitable for general gatherings. As a result the group attending the sessions is very diverse. The women come from all sides of the village. Half of them is not too occupied and thus can join easily, the other half of the women have quite heavy tasks resulting in them missing quite some sessions although they are very interested. According to the extension agent 1/3 of the women has quite some money to spend, 1/3 intermediate and 1/3 is quite poor. In case the advice is given to go and see a doctor in Rada' the complaint is very often heard that this is not possible: a car is too expensive (YR 100,- go and return) or no male relative is present to accompany the woman. Money and companion are mentioned equally in this respect.

The motivation of women to join the sessions differs a lot and no general statement can be made about it: there are women who have enough time and are just interested, there are women who don't have time and yet do come once in a while, there are women who are interested because they hope to limit the needed travels to Rada' to see a doctor because of money reasons. Concerning the general motivation in relation with other villages the impression of extension agent and advisor is that the women are less occupied than those in Az Zuab but yet come less. They need warming-ups every time we come in the village. Reasons probably are that the relations within the village are quite cool: people carefully keep things for themselves and quite some quarrels between households exist.

Hayd al Majil

The group in Hayd al Majil consists of very close family members: the oldest woman being mater familias, the other women being mainly her daughters or daughters-in-law. Still within this group quite some differences in expense possiblities exist: 1/3 being quite rich, 1/2 intermediate, 1/6 being quite poor. To go to Rada' for medical help is for this group however no problem: money is found for it (in case of problems the family helps financially) and also enough male relatives are around to accompany the women.

All women are very motivated to attend the sesions. The women with heavy agricultural tasks (about half of the group) organize their work in such a way that they still can attend the sessions.

Al Hajar

In Al Hajar we cannot speak of "a group" visiting the sessions. Every time we visit the village we see new faces, all women expecting sound advice for their health problem, mostly being questions how to cure this or that.

The opinion existing in the sanitation section about Al Hajar is that it is quite a difficult village. People don't manage to take decisions at village level, the population is not acting as a social unity. From health point of view the personal hygiene of the people is quite poor compared with the other villages, although the houses of Al Hajar have water home connections contrary to e.g. Az Zuab.

Also the LBA does not see how to motivate her co-villagers. One day she even advised us disappointedly to stop the health education and start in a neighbouring village.

ANNEX VIII
IMPRESSION NUTRITIONAL STATUS OF CHILDREN (0-4 YEARS) IN SUAR AND AZ ZUAB

This Annex gives an interpretation of weighing data obtained by weighing all children attending a session for vaccination (first dose) in Suar on 23-11-1988 and a session for vaccination (second dose) in Az Zuab on 29-11-1988. The data only give an impression of the nutritional status as there are too little numbers to give statistically sound interpretations. The children attending the vaccination up to 4 years are representative for the total population of this age in the two villges.

Data processing occurred according to WHO standards of 1978 (ref.9). The median weight of the reference population is the normal weight, the standard (100%). A weight higher than 90% of the standard is said to be normal, a weight between 80% and 89% is still acceptable. The percentage of malnutrion in the population is the percentage of people having a weight lower than 80% of the standard.

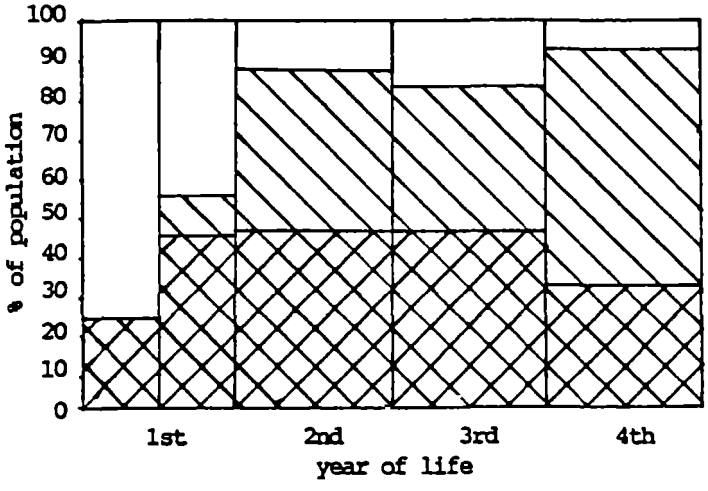
Another cut-off point often used to indicate malnutrition is the 3rd percentile. The 3rd percentile is the weight below which only 3 of the 100 persons are found in the reference population. In the WHO reference population used here the 3rd percentile and the 80% cut-off point coincide.

Az Zuab

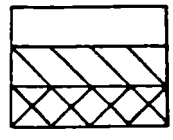
9 km from Rada' to the north by a good accessable road. On a plain. Agriculture less important than in Suar (e.g. no pulses grown), less water available than in Suar (no water supply scheme, no home connections) neither for drinking water nor for agriculture. Annual rainfall: 157 mm (average 7 years).

age (months)	nutritional status (*)														total population
	normal				acceptable		underweight								
							lightly		moderately		seriously		total underw.		
	⩾100%		90–99%		80–89%		70–79%		60–69%		<60%		⩾79%		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N=50
1-5	5	56	2	22	0	0	2	22	0	0	0	0	2	22	9
6-11	4	20	5	25	2	10	4	20	3	15	2	10	9	45	20
12-23	0	0	2	13	6	40	6	40	1	7	0	0	7	47	15
24-35	1	6	2	12	6	35	5	29	3	18	0	0	8	47	17
36-47	0	0	1	8	8	62	3	23	1	8	0	0	4	31	13
TOTAL													30	36	83

(*) nutritional status expressed as percentage of median weight of the reference population according to WHO-standard 1978.



Frequential distribution of nutritional status with children (0-4 years) in Az Zuab



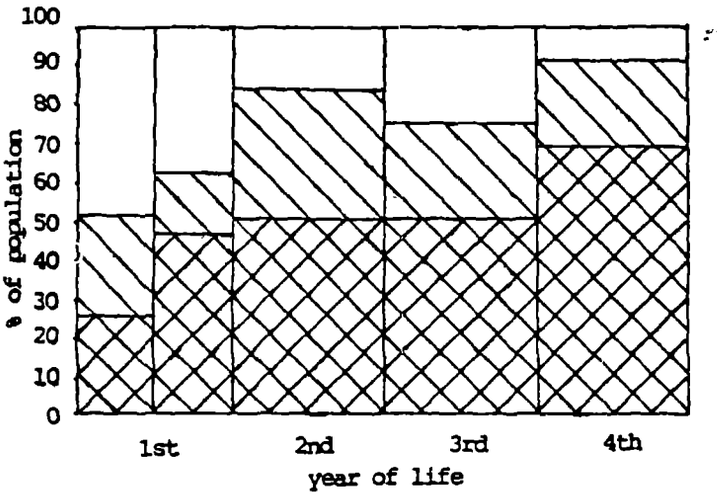
normal weight
acceptable weight
malnutrition

Suar

11 km south of Rada' by a good accessable road. Mountainous area, agriculture more important than in Az Zuab (e.g. pulses are grown), more water available than in AZ Zuab as well for agriculture as for consumption (water supply system constructed by RIRDP with home connections). Annual rainfall 196 mm (avarage of 7 years).

age (months)	nutritional status (*)												total population
	normal				acceptable		underweight						
							lightly		moderately		seriously	total underw.	
	100%		90-99%		80-89%		70-79%		60-69%		60%	79%	
	N	%	N	%	N	%	N	%	N	%	N	N %	N=50
1-5	2	50	0	0	1	25	1	25	0	0	0	0 1 25	4
6-11	1	8	4	31	2	15	5	38	0	0	1	8 6 46	13
12-23	2	17	0	0	4	33	6	50	0	0	0	0 6 50	12
24-35	2	25	0	0	2	25	3	38	1	12	0	0 4 50	8
36-47	0	0	1	8	3	23	6	46	3	23	0	0 9 69	13
TOTAL												26 52	50

(*) nutritional status expressed as percentage of median weight of the reference population according to WHO-standard 1978.



Frequential distribution of nutritional status with children (0–4 years) in Suar

normal weight
acceptable weight
malnutrition