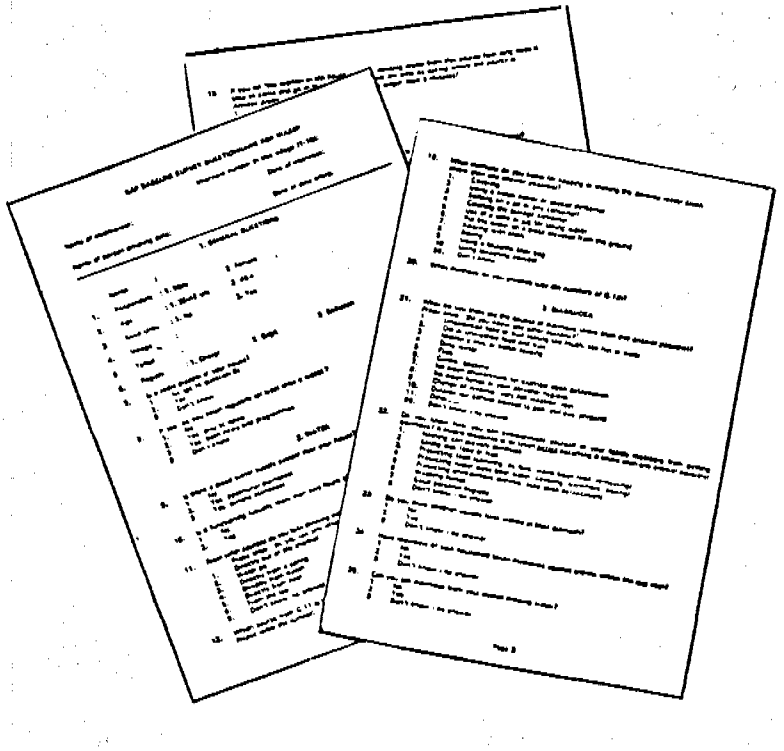
Water, Sanitation, Hygiene and Health Studies Project
Aga Khan Health Service
Northern Areas and Chitral

ISSUE PAPER: 7

KNOWLEDGE, ATTITUDE AND PRACTICE SURVEY: AN INTERVENTION EVALUATION TOOL



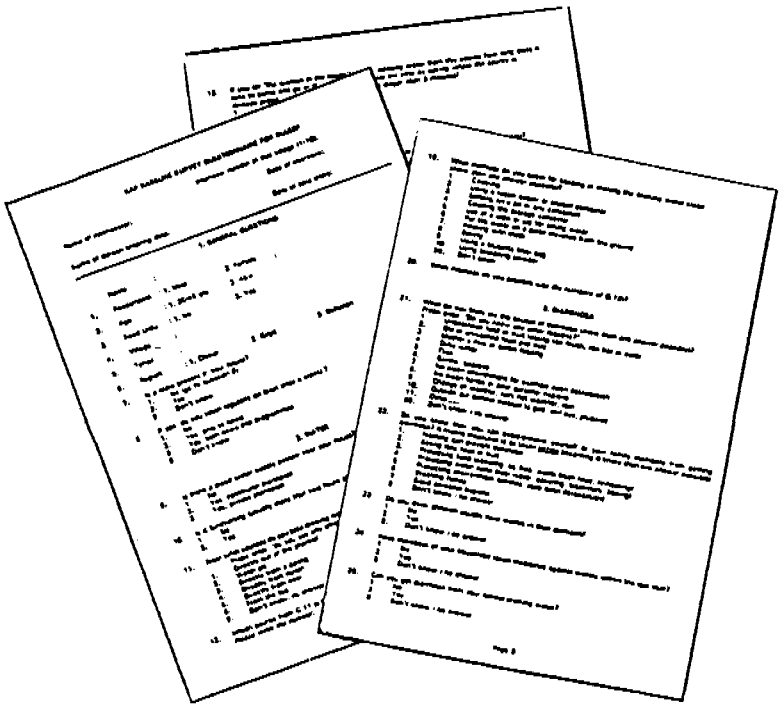
Michael A.M.Langendijk

December 1996

Water, Sanitation, Hygiene and Health Studies Project
Aga Khan Health Service
Northern Areas and Chitral

ISSUE PAPER: 7

KNOWLEDGE, ATTITUDE AND PRACTICE SURVEY: AN INTERVENTION EVALUATION TOOL



Michael A.M.Langendijk

December 1996

CONTENTS

INTRODUCTION

In the summer of 1995 the WSHHSP[1] carried out a Knowledge, Attitude and Practice survey in the Project area. This KAP-survey was the final study in a series of investigations of the social and cultural aspects of domestic water and sanitation. In the earlier studies carried out between 1993 and 1995 more participatory and qualitative techniques were used, including open interviews, group discussions and village mapping.

The purpose of the quantitative KAP-survey was twofold. First, to substantiate and validate the data of earlier field studies and to provide new data on some additional issues. Second, to develop a survey tool for gathering baseline information and for monitoring and evaluation of the future WASEP[2] programme.

Results of the KAP-survey were integrated with qualitative research material and presented in the WSHHP Issue Paper 6: Hygiene Behaviour in North Pakistan. The results of a quantitative and qualitative study.

Purpose of the report

The main purpose of this report is to evaluate the KAP questionnaire, to develop a final version and to suggest how the survey can be integrated in the future activities of WASEP.

Beside this main objective the report has two other objectives. It is intended as a guideline for others developing similar surveys. During the preparation of the survey we consulted existing KAP questionnaires (see references) and we would have benefitted from a practical document dealing with the selection of questions and other methodological issues. Therefore in this report considerable detail about the preparation and execution of the survey which we hope will be helpful to others.

The other secondary aim is to make accessible the complete results of the KAP-survey carried out in 1995. In Chapter 2 the frequencies of the results are presented. For a narrative and a more detailed analysis and cross tabulations Issue Paper 6 should be consulted. To enable easy access to the research results and allow indepth analysis a floppy diskette is available on request. For addresses see page 4. The diskette contains the EPI-INFO programme, a file with the results and the data entry programme for the future survey.

---

[1]. The Water, Sanitation, Hygiene and Health Studies Project (WSHHSP) has worked in the five Northern Districts of Pakistan. It has carried out pre-implementation investigations with the aim to develop locally appropriate technologies and participatory implementation strategies. The Project also aims to design area specific communication and education materials and methods. The WSHHSP commenced in 1993 and is envisaged to transform into WASEP during 1996.

[2]. A proposal for the implementation of a Water and Sanitation Extension Programme (WASEP) by the Aga Khan Development Network is under consideration for the period 1997-2001.

Overview of the report

Chapter 1 explains what a KAP-survey is, and describes the development of the questionnaire and the methodology of the survey. ***In Chapter 2 the text is divided into a distinct right and left page.*** On the left hand page the original questions of the KAP-survey are given with the frequencies of the results attached. On the right page hand corresponding observations, comments and analysis are presented on each question. In Chapter 3 recommendations are formulated on how the survey can be used as a monitoring and evaluation tool for the WASEP programme. The third Chapter also presents an improved version of the KAP-survey questionnaire.

CHAPTER 1
METHODOLOGY OF THE KAP-SURVEY

1.1 WHAT IS A KAP-SURVEY?

Knowledge, Attitude and Practice survey is a term that is particularly used in health research, such as studies of fertility, of diseases like Filariasis or AIDS and in the field of water and sanitation (Lu et al.1988, New Era 1994). In agriculture and forestry KAP-surveys are not so common. In this report and in most of the literature a KAP-survey refers to a structured questionnaire. However, it is also possible to carry out KAP-studies with qualitative techniques such as focus group discussions (Zaidi 1992) or open ended interviews (WSHHSP Position Papers 1-4).

KAP-surveys were first used in studies that apply the following theory of behavioural change; a person requires a certain amount of information (Knowledge) to influence their attitude, and once a new attitude has developed they may change their behaviour (Practice). The KAP-survey was initially intended as a tool to identify if and where interventions were required, and to monitor changes in practice. Subsequent studies however, revealed that behavioural change is more complex and that people with the 'right' knowledge and attitude do not necessarily behave as expected to by the model. This 'KAP-gap' was first described in fertility studies (Bongaarts 1991: 293) and refers to the discrepancy between positive reproductive preferences and the lack of any birth control practices.

Nowadays the term KAP-survey is used as a generic name for any type of survey that tries to understand human behaviour in a wider social and cultural context. For this reason some researchers prefer to speak of KAPB-studies, incorporating questions on beliefs (Hardon et al. 1994: 128).

1.2 DEVELOPMENT OF THE KAP-SURVEY QUESTIONNAIRE

Background and justification for the KAP-survey

Between 1993 and 1995 the WSHHSP carried out most of its studies at household level using qualitative and participatory approaches such as individual and group interviews, village walks, mapping exercises and (structured) observation. At village level quantitative water and sanitation inventories were also carried out. Using these techniques, needs and problems were identified in close cooperation with beneficiaries and the results of these assessments helped to shape programme activities such as appropriate sanitation and water technologies and locally specific health education.

Despite its detailed knowledge and understanding of water and sanitation issues at household and village level the WSHHSP wanted to quantify and check some of its results. Besides the desirability of rigourously triangulating data it was also considered important to include as much 'hard' information as possible when reporting.

The aim of the KAP-survey has been:

- to substantiate and validate the data of earlier research activities and to fill gaps in the existing data;
- to develop a quantitative tool for establishing baseline figures for the next phase of the Project i.e. for WASEP.

Preparations

Over a period of about six months the following preparations were carried out to develop a questionnaire:

The questionnaire was based on the field experience of different disciplines

The social science team of the WSHHSP drafted a first structured questionnaire in March 1995, initially containing nearly 80 questions and pre-categorized answers. The team drew from their extensive field experience to create questions and answers that would result in useful and valid data.

This first set of questions and answers was discussed by the team in several internal review meetings. Several leading questions were dropped. A second draft was discussed with technical staff and their experience helped to delete several questions that may have led to redundant or invalid results. Staff from the field offices in Chitral and Baltistan gave valuable comments on the cultural appropriateness of certain questions. Some questions were rephrased as they were considered too intimate. Consequently the survey was reduced to a total of 50 questions.

A good translation

This version of the survey was translated in Urdu by two team members. The translation was checked and tested several times by staff with different educational backgrounds. Several words and sentences were simplified. The Urdu text was written underneath the English question on the questionnaire.

A good sequence of the questions and a simple lay-out

In discussions within the team the sequence of the questions was discussed and it was decided to start with some simple introductory questions to make the respondent feel comfortable and to ask the questions in order of increasing level of intimacy; first water, then beliefs on diarrhoea, sanitation and finally personal hygiene.

The lay-out of the questionnaire was designed in such a way that it was easy to read. It was printed on a Lazer printer with an Universe 11 pci font. In this way the final selection fitted on four double sided pages, with the last side empty.

Pretest the draft questionnaire with different people

The questionnaire was pretested in the field with about ten respondents. Consequently some re-phrasing of sentences was required and with this final version again pretests were taken with four respondents.

1.3 SAMPLE SIZE AND SAMPLE SELECTION

Sample size

After discussion with the epidemiologist of AKHS it was decided that for the purpose of the 1995 survey a sample size of 600 respondents would be realistic taking statistical and logistical considerations into account. For a future baseline survey in a selected number of villages a relatively larger sample size would be required.

The study aimed to select a representative sample. For this the Project region was divided in three strata (Gilgit, Chitral and Baltistan) each with around 300,000 inhabitants. In each region 200 interviews would be conducted. To guarantee a reasonable geographic spread ten villages were selected in each region. In each village 20 interviews were held (10 women and 10 men).

Village selection

For the selection of villages two approaches were followed. The nine villages that were visited during the domestic indepth studies (see issue paper 6) were included, i.e. three villages in each region. This provided an opportunity to triangulate data that was gathered using observation techniques, particularly data on handwashing and water management.

The selection of the other seven villages in each region was done at random. The sample-frame for the villages were two lists of the water and sanitation data base (see the forthcoming Water and Sanitation Inventory Report). One list contained all villages with a water supply system; the other listed villages without an operational system. Selection of villages was proportionate to the overall piped water supply coverage of each region. If for example the coverage was 30% then three out of ten villages were selected with a water supply scheme and seven without.

In total thirty villages were covered during the KAP-survey. A list of the villages selected is presented in Annex 1.

Household selection within the sample villages

Within the villages households were selected using a method similar to the Balti-latrine study in November 1994. Upon arrival the team inquired about the total number of households. This number was divided by the number of interviews per interviewer (here 10) to determine the interval for selecting households. For example in a village with 40 households we tried to find respondents in every fourth house. In the villages we worked with a team of male and female investigators each starting with interviews at the opposite side of the village.

In the selected household the male investigators interviewed any adult man, the female investigators any woman. Within the ten interviews we aimed to cover an equal number of people younger and older than 45. If in the selected house no suitable candidate was available the next house was selected.

1.4 FIELDWORK

The fieldwork was carried out between June 18th and July 20th 1995. One team covered Gilgit and Baltistan, the other the districts of Chitral and Ghizer. Both teams consisted of the social scientists of the Gilgit Office, and one or two senior LHVs of AKHS. Also some of the engineering and microbiology staff helped with interviewing and/or translation. In some villages LHVs of AKHS or SOs of AKRSP assisted with the survey. Each interview took between ten and twenty minutes. Normally each team covered one village per day.

Usually local persons accompanied the teams while they worked in the village. There were no major problems during the survey and the interviewers were surprised about the cooperation of the villagers. Generally respondents did not feel uncomfortable or ashamed about the interview.

1.5 DEVELOPMENT OF A COMPUTER PROGRAMME FOR DATA ENTRY AND ANALYSIS

Before the final questionnaire was prepared a computer programme was developed with the help of EPI-INFO version 5.0. This is a fairly simple software package for epidemiology and disease surveillance, developed by the WHO. It is free software that can be copied without problems because there is no copyright. With the help of EPI-INFO a provision was prepared to enter the data from the questionnaires into the computer in a simple and straightforward manner.
The computerized questionnaire for the data entry programme is called KAP.QES. A file that facilitates data entry is called KAP.CHK.

It proved very useful to develop the data entry programme before starting the field survey. One advantage was that a few small errors in the questionnaire could be detected and corrected. Another advantage was that data entry could start immediately after the field work.

Data entry

Three team members were instructed on how to enter the data in the computer. This task took about ten days. Despite very careful data entry several small mistakes were found and corrected before analysis. It is very important to create a quiet environment in which the data can be transcribed carefully. After feeding the answers of each questionnaire the EPI-INFO places the data in a record with an identification number. The programme saves all records in a file called KAP.REC.

These data were analysed with the statistical programme of EPI-INFO. Although it is a relatively simple programme the consultant epidemiologist working with AKHS played a vital role in preparing the data entry programme and helping with analysis of the results.

Floppy diskette with EPI-Info

With a limited number of copies of this Issue-paper a floppy diskette is included with the EPI-INFO programme and a data entry programme specially designed for the KAP-survey of the WSHHSP/ WASEP. Interested readers can request a diskette with the EPI-INFO and the KAP data-entry programme from the WHHSP in Pakistan or from the author.

WSHHSP/WASEP
c/o Aga Khan Health Service
Domiyal Link Road
Gilgit
Pakistan
tel: 0092 - 572 - 2958
fax: 0092 - 572 - 2559

Michael A.M.Langendijk
Pretoriusstraat 86-2
1092 GL Amsterdam
The Netherlands
tel + fax: 0031 - 20 -6634150

CHAPTER 2
KAP-SURVEY QUESTIONNAIRE: COMMENTS AND RESULTS

In this chapter the KAP-questionnaire used in the 1995 survey is discussed and comments and observations are given on the right-hand page. On the left-hand page the original question and the basic frequencies of the answers is reproduced. The modified questionnaire is presented in chapter 3. Except for the general section on this page the paragraphs of this chapter follow the sequence of the questionnaire.

Comments on the data and questionnaire identification

Interview number
The sequence number was easy to note as it helped the interviewer to keep track during the fieldwork and to arrange the questionnaires.

Date
The date was recorded on the questionnaire to facilitate identification. It is recommended also to add the date of entering the data in the computer.

Name of the interviewer
Because of the relatively small scale of the survey the names of the interviewer and the person feeding the data in the computer were not written on the questionnaire. In the future survey it is suggested to include this information on the questionnaire.

Record number
After feeding the answers of the questionnaire in the computer the EPI-INFO programme saves a 'record' with a unique identification number. With a marker this number was written on the right upper corner of the questionnaire. All questionnaires were arranged in a box following a numerical order from 01 to 600. With this system it is easier to retrieve questionnaires during the analysis than to search for village and respondent's name.

Names of respondents
During interviewing it was difficult to note the names of women because of purdah rules. It was not absolutely necessary to record the name of the respondent but it helps identification if small mistakes that occurred during data entry had to be rectified. The personalising of each questionnaire with a name avoids the process of data entry and analysis becoming purely mechanical.

KAP BASELINE SURVEY

Interview number in this village:

1. GENERAL INFORMATION

Name :

1.01	Respondent	: 1. Male	[300 = 50.0%]	2. Female	[300 = 50.0%]
1.02	Age	: 1. 20-45 yrs	[417 = 69.5%]	2. 45+	[183 = 30.5%]
1.03	Read Urdu	: 1. No	[447 = 74.5%]	2. Yes	[153 = 25.5%]

1.04 Village :

1.05 Tehsil :

1.06 Region : 1. Chitral 2: Gilgit 3. Baltistan

1.07 Is a radio present in your house ?

1.	No (go to question 1.09)	221 = 36.8%
2.	Yes	379 = 63.2%
9.	Don't know	0
		600 = 100%

1.08 If yes, do you listen regularly to programmes ? (at least once a week)

1.	No	82 = 21.7%
2.	Yes, only to news [in local language and Urdu]	33 = 8.7%
3.	Yes, both news and programmes [in local language]	151 = 39.9%
4.	Yes, both news and programmes [in local language and Urdu]	112 = 29.6%
9.	Don't know	0
		379 = 100%

KAP BASELINE SURVEY

1. GENERAL INFORMATION

1.01: No comments[3]

1.02 Age of the respondent
The interviewers were instructed to select five respondents in the two age categories during their ten interviews. During the fieldwork people older than 45 were harder to find, particularly older women were not available or refused to give interviews. Interviews with people from this age group are important as they generally have a significant influence on household decisions and may have different ideas and preferences compared to the younger generation. The overall figures show that the survey is biased towards the category of 20 - 45 years.

In a future KAP survey an equal coverage of both age groups should be aimed for.

1.03 Can you read Urdu?
The ability to write is a more reliable variable than the level of education or number of years in school, and it is also an easier question to ask. The results show the low percentages of women who will be able to read written messages on posters, books or leaflets and thus also signify the importance of simple picture language.

1.04 to 1.06 No comments

1.07 and 1.08 About radios and radio programmes
These questions were included as an easy starting point for the real interview. On purpose we selected questions that were not directly related to the subject. The results give an indication of the number of radios and the likelihood that people will listen to radio messages.
It is suggested to have three simple categories in the new Q1.08; numbers 1 'No' , numbers 2 'Yes, the news' and numbers 3 'Yes news and programmes'.

---

[3]. 'No comments' indicates that the question is appropriate and self explanatory and will be used unchanged in the future questionnaire.

1.09 Is there someone working on health in your village ?
(For example: CHW, TBA, LHV, dispenser, health worker, health technician)

1.	No (nobody working on health)	152 = 25.3%
2.	No (respondent not aware of health worker)	37 = 6.2%
	If yes, check familiarity by asking name	
3.	Yes, (respondent knows name of the CHW/HW)	364 = 60.7%
4.	Yes, (respondent doesn't know name of CHW/HW)	47 = 7.8%
		600 = 100%

2. WATER

2.01 Is there a water supply system near your house ?

1.	No	303 = 50.5%
2.	Yes, communal standpost	173 = 28.8%
3.	Yes, private standpost	124 = 20.7%
		600 = 100%

2.02 Is it functional (usually more than two hours of water per day)?

1.	No	94 = 31.6%
2.	Yes	203 = 68.4%
		297 = 100%

2.03 From where do you usually take DRINKING WATER during the summer?
Probe once, by asking if there are other sources.

1.	Directly out of the (nearest) channel	275 = 45.0%
2.	Directly out of some other channel	81 = 13.0%
3.	Water pit	127 = 21.2%
4.	Directly from a spring	89 = 14.8%
5.	Directly from nullah	57 = 9.5%
6.	Directly from river	74 = 12.3%
7.	From the tap	211 = 35.2%
9.	Don't know, no answer	0

2.04 If more than one source, which source is the most commonly used for DRINKING WATER? Please write the number of the answer of Q2.03 .....

source 1.	173 = 28.8%
source 2.	46 = 7.7%
source 3.	85 = 14.2%
source 4.	56 = 9.3%
source 5.	38 = 6.3%
source 6.	50 = 8.3%
source 7.	152 = 25.3%
	600 = 100%

2.05 If you (or 'the women in the house') go to collect DRINKING WATER from this source, how long does it take to come and go in the summer? Estimate the time by asking where the source is. Always probe if the time is longer than 5 minutes!

1.	0 - 5 minutes	399 = 66.5%
2.	5 - 10 minutes	85 = 14.2%
3.	10 - 15 minutes	32 = 5.3%
4.	15 - 30 minutes	58 = 9.7%
5.	More than 30 minutes	23 = 3.8%
9.	Don't know, no answer	3 = 0.5%
		600 = 100%

1.09 Is there someone working on health in the village?
The aim of this question is to differentiate between people with and without access to primary health care. The question however, did not enable such distinction as the definition of a 'health worker' was not clear for the respondents. In one village people referred to an active lady health visitor, while in another village it was the government dispenser who was never present and was without medicines. The result was that some communities in Baltistan score above 50% while in actual fact they do not have any access to primary health care in their area.

Because of this unclarity it is suggested to delete the question. Better ways of determining the access a community has to primary health care should be found.

2.2 WATER

2.01 and 2.02 Is there a water supply system near your house and is it functioning?
These questions indicate the service level of the water supply. In the future this question will help to monitor the actual service level and use patterns for piped water supply.

2.03 From where do you usually take drinking water (during the summer)?
Earlier studies indicated that villagers use several sources of drinking water, especially in the summer and thus multiple answers could be given to the question.

Comment on probing
The interviewers could probe once. Whether the interviewers could probe or not was mentioned on the questionnaire and was explained during a briefing. For the reliability of the answers it was important that all interviewers would have the same 'probing' behaviour. To avoid confusion it is probably better not to probe at all in the future, unless it is explicitly stated.

2.04 If more than one source, which is the most commonly used source for drinking water?
We asked the respondent to select the most common source from the list of 2.03. Question 2.05 to 2.08 were then answered only with regard to this most important source.

2.05 How long does it take to collect drinking water in the summer?
This question was posed only for the summer (when the survey was carried out) and not for the winter to avoid making the questionnaire too complicated and long. Winter water was also excluded because we anticipated that respondents would have difficulties to answer the question, being 'out of season' or they would exaggerate.

We preferred to estimate the duration of water collection in time and not in distance. Although both are difficult to estimate we found that time is slightly easier for both the respondents and the interviewers. In the earlier studies we found that most water sources for drinking are nearby the houses, at least in the summer. As some people tend to exaggerate the time for collection the interviewers were asked to probe if respondents gave answers of more than 5 minutes.

2.06 Is this the nearest source of DRINKING WATER?

1.	No	151 = 25.3%
2.	Yes	448 = 74.7%
9.	Don't know	1 = 0.2%
		600 = 100%

2.07 Why do you prefer DRINKING WATER from this source (more than one answer possible)? Probe once, by asking if there are any other reasons.

1.	No other source available	199 = 33.2%
2.	Nearby, easy	157 = 26.2%
3.	Clean	314 = 52.3%
4.	Cold	146 = 24.3%
5.	Running water	40 = 6.7%
6.	Little or no turbidity	23 = 3.8%
7.	Other...	20 = 3.3%
9.	Don't know, no answer	2 = 0.3%

2.08 When do you collect the DRINKING WATER from this source?

1.	Any time of the day when needed	290 = 48.3%
2.	Usually early morning	149 = 24.8%
3.	In the early morning and late evening, not during the day	160 = 26.7%
9.	Don't know	1 = 0.2%
		600 = 100%

2.09 Do you normally store DRINKING WATER in the house?
(i.e keep water for longer than 2 hours in a container).

1.	No	145 = 24.5%
2.	Yes, but usually only in warm season (spring and summer)	65 = 10.8%
3.	Yes, but usually only in cold season	93 = 15.5%
4.	Yes, always	296 = 49.3%
9.	Don't know	1 = 0.2%
		600 = 100%

2.10 Do you have a water cooler?

1.	No	240 = 40.0%
2.	Yes	360 = 60.0%
9.	Don't know	0
		600 = 100%

2.11 What is dirty DRINKING WATER (multiple answers)?
Probe once, by asking 'what else?'

1.	Mixed with soil, turbid	364 = 60.7%
2.	Taste is not good	34 = 5.7%
3.	Colour is not good (after clothes washing or irrigation)	350 = 58.3%
4.	Stagnant	49 = 8.2%
5.	Visible particles (grass, sand, leaves)	220 = 36.7%
6.	Visible worms, small insects and algae	73 = 12.2%
7.	Gerasims (not visible with the eye)	30 = 5.0%
8.	Other,....	52 = 8.7%
9.	Don't know	33 = 5.5%

2.06 Is this the nearest source of drinking water?
This question was included during the research phase to see if people make a conscious decision to take drinking water from a particular source even if it is not actually the nearest. 25% of the respondents say they do. In future surveys it is not necessary to repeat the question.

2.07 Why do you prefer drinking water from your chosen source?
This question gives an indication of the reasons for taking the water from people's preferred source of drinking water.

2.08 When do you collect drinking water?
This question was of interest in the research phase of WSHHSP. For the future KAP survey this question is not so important.

2.09 Do you normally store drinking water?
High contamination levels were found in storage containers inside houses. For the future programme it is of interest to monitor the level of people who keep on storing water after an improved water supply has been installed in their village.

2.10 Do you have a water cooler?
The answers to this question indicated that in the majority of households, water coolers are available. To get a better idea of the actual use pattern, this question should be changed into: 'Do you use a water cooler in your house to store drinking water?'

2.11 What is dirty drinking water?
This question gives an indication of what villagers believe makes their water dirty. Multiple answers could be given and probing once was allowed. The formulation and the sequence of the answers should be slightly modified to avoid confusion.

2.12 What is a gerasim ?
(If no answer probe. For example: what does it look like? (multiple answers possible)

1.	Worm	244 = 40.7%
2.	Something you cannot see with the eye	134 = 22.3%
3.	Insect	31 = 5.2%
4.	Dirt	130 = 21.7%
5.	Other,....	14 = 2.3%
9.	Don't know	150 = 25.0%

2.13 What methods DO YOU KNOW for keeping or making the DRINKING WATER clean (more than one answer possible)?

1.	Covering	433 = 72.2%	/ 381 = 63.5%
2.	Use of ladle or jug for taking water	28 = 4.7%	/ 26 = 4.3%
3.	Put on a place elevated from the ground	16 = 2.7%	/ 11 = 1.8%
4	Filtering with cloth	56 = 9.3%	/ 21 = 3.5%
5.	Boiling	75 = 12.5%	/ 15 = 2.5%
6	Settling (in a pit or any container)	113 = 18.8%	/ 88 = 14.7%
7.	Using a Musaffa filter bag	9 = 1.5%	/ 4 = 0.7%
8.	Using bleaching powder	34 = 5.7%	/ 4 = 0.7%
9.	Using a water cooler or special container	251 = 41.7%	/ 217 = 36.2%
10.	Wash utensils	69 = 11.5%	/ 37 = 6.2%
11.	Other...	48 = 8.0%	/ 59 = 9.8%
99.	Don't know	30 = 5.0%	/ 51 = 8.5%

2.14 What methods DO YOU PRACTICE?
(mention separately each answer of previous question). If yes, write the numbers:
[The answers are presented in the second column of Q2.13]

3. DIARRHOEA

3.01 What do you think are the causes of diarrhoea (multiple answers)?
Probe once, by asking for other reasons

Food related reasons

1.	Unbalanced food (too much food, hot/cold, not suiting stomach)	239 = 39.8%
2.	Old food	113 = 18.8%
3.	Too much or unwashed fruit or salad	137 = 22.8%
4.	Mother's milk	31 = 5.2%
5.	Bottle feed	4 = 0.7%
6.	Children eating dirt or mud	77 = 12.8%
7.	Teething	5 = 0.8%
8.	Dirty water	150 = 25.0%
9.	Flies	54 = 9.0%
10.	Worms in the stomach	9 = 1.5%

Other reasons

11.	Change of weather, very hot weather, rain	223 = 37.2%
12.	Germs, bacteria	30 = 5.0%
13.	Open defaecation, no clean environment	55 = 9.2%
14.	No clean hands	80 = 13.3%
15.	Related to god, evil eye, jin/parri	24 = 4.0%
16.	Other,....	25 = 4.2%
98.	Men or women say: my wife/husband knows better	1 = 0.2%
99.	Don't know / no answer	65 = 10.8%

2.12 What is a *gerasim* (bacteria)?
On purpose the question of 'what is a gerasim' was placed after question 2.11 to avoid prompting respondents to mention bacteria. It is a very interesting question as it gives an indication of villagers' concepts about bacteria.

2.13 and 2.14 What methods do you know and practice to keep or make water clean.
These questions are an attempt to find out differences in people's knowledge and their practices. The questions are good but the sequence of the answers should change and 'cleaning the storage vessel' should be added. These questions will be useful to monitor the effect of the future health education messages of WASEP.

2.3 DIARRHOEA

3.01 What do you think are the causes of diarrhoea?
The scores for this question show that villagers have various ideas about the causes of diarrhoea. For the research phase a very detailed differentiation was useful. For WASEP the list of answers can be simplified. The question will be useful to monitor the effect of the health education activities of WASEP.

3.02 Do you think that diarrhoea can be prevented?

1. No	85 = 14.2%
2. Yes	315 = 52.5%
3. Person does not understand the question	23 = 3.8%
9. Don't know / no answer	177 = 29.5%
	600 = 100%

3.03 If yes, how can you prevent diarrhoea?

1.	Nothing can prevent diarrhoea	12 = 2.0%
2.	Eating less meat, fruits, sweets, ghee or unbalanced food	61 = 10.2%
3.	Protecting food (covering, no flies, warm fresh food, re-heating)	143 = 23.8%
4.	Protecting water (take clear water, covering, treatment, boiling)	88 = 14.7%
5.	Washing fruit or	46 = 7.7%
6.	Washing hands	54 = 9.0%
7.	Good sanitation (latrines, clean environment)	58 = 9.7%
8.	Good personal hygiene of children and adults	143 = 23.8%
9.	Don't know / no answer	32 = 5.3%

3.04 Do you think children usually have worms in their stomach?

1.	No	22 = 3.7%
2.	Yes	547 = 91.2%
3.	Sometimes	9 = 1.5%
9.	Don't know / no answer	22 = 3.5%
		600 = 100%

3.05 Have members of your household taken medicines against worms within the last year ?

1.	No	263 = 43.8%
2.	Yes	308 = 51.3%
9.	Don't know / no answer	29 = 4.8%
		600 = 100%

3.06 Can you get diarrhoea from your normal drinking water?

1.	No	329 = 54.8%
2.	Yes	194 = 32.3%
9.	Don't know / no answer	77 = 12.8%
		600 = 100%

4. SANITATION

4.01 If people go for open defaecation can you tell what problems they may face ? (multiple answers possible) Probe once, by asking for any other problems

1.	No practice of open defaecation	126 = 21.0%
2.	Nothing, no problem with open defaecation	69 = 11.5%
3.	Lack of privacy	232 = 38.7%
4.	Inconvenience in the night	39 = 6.5%
5.	Walk to a suitable place, distance	55 = 9.2%
6.	Problem for old, sick people and children	27 = 4.5%
7.	Smell	154 = 25.7%
8.	Unhygienic, not good for health	190 = 31.7%
9.	Can step in faeces, it is dirty, flies	84 = 14.0%
10.	Disturbance by animals or insects	11 = 1.8%
99.	Don't know / no answer	52 = 8.7%

3.02 Do you think that diarrhoea can be prevented?
'To prevent' is a term that is difficult to translate and during the survey this was a difficult and time consuming question for both the respondents and the interviewers. Many respondents first answered that diarrhoea was preventable by taking medicines. This showed that they had not understood the question. The question was repeated again, stressing if one could take any measures to prevent diarrhoea and avoid becoming ill.

The answers of 3.02 were used in the WSHHSP Issue Paper 6. In the future it is suggested to skip 3.02 because of the difficulty of getting reliable answers.

3.03 How can you prevent diarrhoea?
Once people had answered 3.02 they had less difficulties with this question. It is suggested to keep this question as it helps monitoring the effect of hygiene education messages. The answers will be changed slightly and the question will be rephrased into the rather lengthy: "Do you know how you can avoid yourself or your family members from getting diarrhoea? It means measures to be taken before becoming ill".

3.04 and 3.05 About children having worms
Unless one takes stool tests it is very difficult to assess the level of parasitic diseases such as worms. These questions attempt to indicate how common worms are according to villagers.

3.06 Can you get diarrhoea from you normal drinking water?
In the earlier studies we found that people could easily mention the possible causes of contamination of their drinking water sources. People mentioned animals walking in channels, children defaecating near the source etc. With this question we wanted to see how many villagers see the relationship between such sources of contamination and the incidence of diarrhoea.

2.4 SANITATION

4.01 What are the problems with open defaecation?
This question was included in the questionnaire to help the development of promotion material for latrines. This question can be deleted in the future survey.

4.02 Do you think that human faeces can spread diarrhoea?

1.	No (go to question 4.04)	107 = 17.8%
2.	Yes	402 = 67.0%
9.	Don't know / no answer	91 = 15.2%
		600 = 100%

4.03 If yes, how?

1.	Flies on the food	146 = 24.3%
2.	The mouth, feet or meat of animals	18 = 3.0%
3.	Wind, dust or smell	262 = 42.7%
4.	Water	66 = 11.0%
5.	Fields	20 = 3.3%
6.	From one person to another (hands, feet)	113 = 18.8%
7.	Other..	24 = 4.0%
9.	Don't know / no answer	19 = 3.2%

4.04 Do you think that the faeces of a child of 3 months can spread diarrhoea to other people ? (probe once)

1.	No (ask next question)	171 = 28.5%
2.	Yes, but only if the child is ill (ask next question)	56 = 9.3%
3.	Yes (go to question 4.06)	205 = 34.2%
9.	Don't know / no answer	168 = 28.0%
		600 = 100%

4.05 * At what age do children's faeces become a possible way of spreading diarrhoea?

1.	When the child starts eating solid food	45 = 7.5%
3.	When the child stops being breastfed	37 = 6.2%
4.	< 6 months	58 = 9.7%
5.	6 - 12 months	63 = 10.5%
6.	> 12 months	64 = 10.7%
7.	Other...	5 = 0.8%
9.	Don't know / no answer	328 = 54.7
		600 = 100%

4.06 * If a child is defaecating in its shalwaar how do women clean the clothes?

1.	Clean with a piece of cloth	95 = 15.8%
2.	Wash and waste water is thrown in the compound	96 = 16.0%
3.	Wash and waste water is thrown in shed or field	273 = 45.55
4.	Wash in any channel	41 = 6.8%
5.	Wash under the tap	48 = 8.0%
6.	Others,...	18 = 3.0%
9.	Don't know / no answer	29 = 4.8%
		600 = 100%

4.07 * Do you have a pour-flush latrine in your house?

1.	No (go to question 4.11)	468 = 78.0%
2.	Yes	131 = 21.8%
9.	Don't know / no answer	1 = 0.2%
		600 = 100%

4.02 and 4.03 Can human faeces spread diarrhoea?
These questions are included to appraise villagers' understanding of transmission routes. For the sake of clarity it is suggested to slightly rephrase and re-order the answers of 4.03.

4.04 Can faeces of a child of 3 month spread diarrhoea?
This question tries to appraise the knowledge of villagers with regard the danger of children's faeces. It is a useful question but interviewers need to probe once in order to avoid too many 'Don't know' answers.

4.05 At what age do children's faeces spread diarrhoea to others?
Although this is almost the same question, it was added to check (triangulate) the validity of question 4.04. Many respondents who answered yes on 4.04 gave a contradictory answer (high age) to question 4.05. It is therefore suggested to prepare clearer categories for the pre-coded answers to this question.

4.06 How do women clean soiled clothes?
In villages without protected drinking water sources it is important to know the risk of contamination through clothes washing. This is a useful indicator for future monitoring.

4.07 Do you have a pour-flush latrine?
In the 1995 survey no specific questions were included about latrines other than the pour-flush because the WSHHSP was also carrying out a sanitation inventory and did not want to duplicate. In the future however, it is important to have an indication of the type and condition of latrines in the villages. It is therefore suggested to include questions about the various types of latrine in the survey.

4.08 If yes, how many pour-flush latrines are present in the house?

1.	one flush latrine	102 = 77.3%
2.	two flush latrines	22 = 16.7%
3.	three flush latrines	5 = 3.8%
4.	more than three flush latrines	3 = 2.3%
9.	Don't know / no answer	0
		132 = 100%

4.09 Where is/are the flush latrines constructed?

1.	one latrine: guest room	46 = 34.8%
2.	one latrine: in or attached to the house	39 = 29.5%
3.	one latrine: in compound	19 = 14.4%
4.	two or more latrines: one guest room and other near house or compound	28 = 21.2%
5.	two or more latrines: both near guest room	0
6.	two or more latrines: none near guest room	0
9.	Don't know / no answer	0
		132 = 100%

4.10 Do your household members use the pour-flush latrine for bathing?

1.	No	32 = 24.2%
2.	Yes	99 = 75.0%
9.	Don't know / no answer	1 = 0.8%
		132 = 100%

4.11 Do you have a special bathroom (not a pour-flush) in your house ?

1.	No	212 = 35.3%
2.	Yes, the pour flush latrine is used as bathroom	30 = 5.0%
3.	Yes, we have a separate bathroom	357 = 59.5%
9.	Don't know / no answer	1 = 0.2%
		600 = 100%

5. PERSONAL HYGIENE and HANDWASHING

5.01 Can apparently clean hands spread diarrhoea from one person to another? (no sand or black on the hands)

1.	No	189 = 31.5%
2.	Yes	321 = 53.5%
9.	Don't know / no answer	90 = 15.0%
		600 = 100%

5.02 If yes, how do you think these hands can spread diarrhoea? (multiple answers)

1.	Gerasims	107 = 17.8%
2.	Dust	83 = 13.8%
3.	Any other dirt we cannot see	172 = 28.8%
9.	Don't know / no answer	29 = 4.8%

4.08 and 4.09 How many pour-flush latrines and where?
These detailed questions were useful during the research phase but can be omitted in the future survey.

4.10 Do you use the pour-flush latrine for bathing?
This question looked at the frequency of households that use the pour-flush as a bathroom. This figure does not guarantee that the respondent really uses the bathroom but it does give an indication that promotion of latrines cum bathrooms can be socio-culturally acceptable.
In the future survey this question will also have to include other latrine types.

4.11 Do you have a special bathroom?
Gives an indication of the number of bathing facilities in a community.

In the future survey it is suggested to include a sanitation observation activity i.e. the interviewer asks the respondent for permission to observe the latrine and/or bathroom. On a monitoring format the interviewer can record details on the type and condition of the latrine/bathroom, and his/her assessment as to whether it is used or not.

2.5 PERSONAL HYGIENE AND HANDWASHING

5.01 Can apparently clean hands spread diarrhoea?
This question gives an indication of villagers' awareness of hands as a possible transmission route. The number of people giving positive answers to this question was higher than anticipated. It is possible that, despite the careful design of the sequence, the respondents have 'learned' about hygiene by the end of the questionnaire.

5.02 How can hands spread diarrhoea?
In our questionnaire we should not have said 'multiple answers' but only 'one answer possible'. The option 'dust' should have been stated to include any type of visible dirt on hands.

5.03 When do you clean your hands (multiple answers)?

1.	After waking up in the morning	283 = 47.2%
2.	After defaecation	142 = 23.7%
3.	After work with animals	73 = 12.2%
4.	After work in fields or compound	202 = 33.7%
5.	After changing nappies	36 = 6.0%
6.	After eating	120 = 20.0%
7.	After cleaning utensils	85 = 14.2%
8.	Before eating	463 = 77.2%
9.	Before feeding children	31 = 5.2%
10.	Before preparing food	173 = 28.8%
11.	Before going outside to visit others	20 = 3.3%
12.	Before prayers	313 = 52.2%
13.	When hands are visibly dirty	158 = 26.3%
99.	Don't know / no answer	0

5.04 Do you clean your hands after defaecation?

1.	No	12 = 2.0%
2.	No, because we use mud lumps, stone, leaves or paper	16 = 2.7%
3.	Yes	572 = 95.3%
9.	Don't know / no answer	0
		600 = 100%

5.05 If yes, how do you clean your hands?

1.	Wash with plain water	379 = 66.3%
2.	Wash with water and sometimes soap	106 = 18.5%
3.	Wash with water and soap	82 = 14.3%
4.	Wash with water and mud, ash or flour	1 = 0.2%
5.	Wipe hands clean with cloth, leaves, on soil or grass	4 = 0.7%
9.	Don't know / no answer	0
		572 = 100%

5.06 What different kind of materials can be used for cleaning hands (except water)?

1.	Nothing	71 = 11.8%
2.	Soap	501 = 83.5%
3.	Cloth/chaddor	39 = 6.5%
4.	Towel	78 = 13.0%
5.	Mud	31 = 5.2%
6.	Flour	43 = 7.2%
7.	Ash	25 = 4.2%
8.	Apricot nuts	15 = 2.5%
9.	Other,...	26 = 4.3%
99.	Don't know / no answer	10 = 1.7%

5.07 Do you think it is acceptable to clean your hands with water and mud?

1.	No, idea totally rejected	410 = 68.8%
2.	Yes, idea partly acceptable but not practised	75 = 12.5%
3.	Yes, idea acceptable and sometimes practised	113 = 18.8%
9.	Don't know	2 = 0.3%
		600 = 100%

5.03 When do you wash your hands?
With this question we wanted to have an indication of what people thought are the most important handwashing opportunities. Although it is not a very precise question to measure knowledge it does give a rough indication of people's priorities.

5.04 Do you clean your hands after defaecation?
This question was added with the sole purpose as a stepping stone to question 5.05. This is a leading question which, not surprisingly, scored over 95% affirmative.

On purpose the verb *clean* and not *washed* was used in question 5.04 and 5.05 as we expected that a small number of people were not washing with water but would only wipe their hands on the ground or on a piece of cloth.

5.05 How do you clean your hands?
We feared that this question would give a lot of socially desirable answers. We were therefore surprised that the majority answered that they washed with plain water only. The outcome of earlier observations showed that people are not used to washing their hands with soap. Any survey with a very high score on handwashing with soap is highly suspect in our opinion. Very few people answered that they cleaned without water. In the future answer 4 and 5 can be combined in one category 'Method without water (wipe on the ground, a cloth etcetera).

5.06 to 5.09 What materials are used for cleaning hands?
These questions were included in the survey as part of the WSHHSP study of handwashing. The aim was to come up with appropriate recommendations on handwashing with soap or any other agent. In future these questions can be deleted.

5.08 * Do you think it is acceptable to clean your hands with water and flour?

1.	No, idea totally rejected	315 = 52.5%
2.	Yes, idea partly acceptable but not practiced	100 = 16.7%
3.	Yes, idea acceptable and sometimes practiced	178 = 29.7%
9.	Don't know	7 = 1.2%
		600 = 100%

5.09* Do you think it is acceptable to clean your hands with water and ash?

1.	No, idea totally rejected	384 = 64.0%
2.	Yes, idea partly acceptable but not practiced	104 = 17.3%
3.	Yes, idea acceptable and sometimes practiced	107 = 17.8%
9.	Don't know	5 = 0.8%
		600 = 100%

CHAPTER 3
RECOMMENDATIONS

3.1 THE KAP-SURVEY AS PART OF WASEP MONITORING AND EVALUATION ACTIVITIES

From 1997 onwards the Water and Sanitation Extension Programme will facilitate integrated water, sanitation and health education activities in about 20 medium sized villages per year. By 2001 a total of approximately 100 villages in Northern Areas and Chitral will be covered by the Programme. It is envisaged that monitoring, evaluation and applied research will be important components of the Programme.

During the transition from WSHHSP to WASEP in 1996-97 a detailed monitoring and evaluation plan will be formulated. It is recommended to include the modified KAP-survey as one of the monitoring and evaluation activities of WASEP.

3.2 PROPOSAL FOR A KAP BASELINE AND MONITORING SURVEY

It is proposed that in all three regions KAP-surveys will be carried out to test and monitor the effects of the WASEP activities. For this an intervention-study is the most appropriate study design. See figure 1 on page 24.

1. The selection of villages

- In an intervention study villages are included in which integrated activities take place. Also villages are selected without WASEP interventions. These villages act as a control group. After an interval the villages are visited again to measure the difference between villages.

- The number of villages to be included in the survey and the interval between surveys depends on the available resources of WASEP. Tentatively it is proposed to carry out the survey in 25% of the implementation villages. Thus about 6 implementation and 6 control villages will be included in the survey every year, which means four villages per region/year.

- Villages for the WASEP programme will be shortlisted on a regional basis. From this shortlist two villages could be selected at random to be included in the KAP-survey. The control villages should be similar to the intervention villages in the sense of size, water source, socio-cultural groups. Preferably the control village should be neighbouring or very near to the intervention village.

2. Number of respondents in every village

- The number of respondents in each village has to be decided by the Project but should be higher than the 20 people of the 1995 KAP-survey. For measuring and statistically analyzing changes in attitude and behaviour a relatively big sample size will be required. It is recommended to include around 30% of the households, with an equal number of men and women.

  When the survey is repeated after an interval of a few years it is not required to interview exactly the same respondents, but they should be from the same age groups!

3. When to carry to carry out the survey

It is recommended to integrate the first (Baseline-)survey during the initial dialogues with the community. For the control village the survey should take place in the same season. If it is not possible to carry out the baseline-survey during the survey it should definitely take place before commencing the actual implementation activities. The results of these surveys will be the baseline or bench-mark figures.

The second survey should be carried out two or more years after the first. This survey should be carried out in exactly the same month/period of the year to avoid seasonal variations influencing the data.

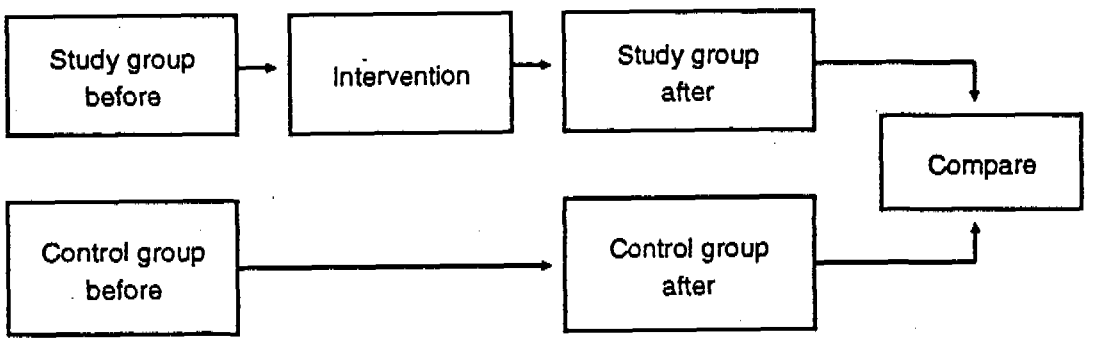


Figure 1: Model of an intervention study

4. Monitoring and evaluating the objectives of WASEP

- The survey will be repeated after a certain interval to monitor the WASEP objectives. For three of the six specific objectives of WASEP the KAP-survey can be used as a monitoring tool[4]. The KAP-survey can be used alongside other methods like focus group discussions, participatory and structured observations and indepth-interviewing.

- Not all objectives can be monitored with a KAP-survey. In these cases other, more appropriate monitoring and evaluation instruments can be used, such as register books, activity records and interviews.

---

[4]. See WASEP proposal, November 1995 page 7. These three specific objectives are:
- To increase awareness among the beneficiaries about hygiene concepts and to assist them achieve appropriate changes in behaviour;
- To increase the number of people owning and hygienically using sanitation systems appropriate to their particular situation;
- To increase the number of people who take and safely use drinking water from improved rural water supplies.

- To monitor objective 2, the number of people owning and using latrines, it is recommended to combine the KAP-survey with sanitation observations. This activity could be similar to the pit latrine and pour-flush latrine studies in 1993 (Issue Papers 1 and 2) and the monthly monitoring of improved dry pit latrines in Chitral in 1994 and 1995 (Issue Paper 10). For example, every person who says that they have any type of latrine (question 31 of the new questionnaire) should be requested to permit the use of the monitoring format developed in Chitral for the pit latrines (with appropriate improvements).

Impact evaluation

It is also possible to use the KAP-survey to measure the impact of the WASEP programme. Impact evaluations however are costly, time consuming and a specialist (preferably an epidemiologist) is required for a study design (see for example Aziz et al. 1990).

An impact evaluation will test the impact of the Programme on the overall goal. In the case of WASEP this goal is 'to enhance the quality of people's lives...' and to 'reduce the incidence and severity of water and sanitation related diseases'. For an impact evaluation it is therefore necessary to have figures on the incidence of diseases before the interventions and after an interval of say four or five years. There are different ways to measure the incidence of diseases. One way is the registers of health workers. A reliable method is to use 24-hour recall or two week recall questions such as: Did any of the members of your household suffer from diarrhoea during the last 24 hours/2 weeks?

It is possible to include such questions in the KAP-survey. To measure the incidence of diarrhoea however, it will be necessary to visit families and repeat the questions on the incidence of disease at regular intervals over a period of a few months.

Who is responsible for the survey

The Evaluation Officer should be responsible for initiating the survey, data entry, analysis and reporting. They will carry out the survey in close cooperation with the field staff and will be responsible for training the field staff and for maintaining high standards of data gathering.

3.3 IMPROVED QUESTIONNAIRE FOR THE KAP BASELINE SURVEY

In the previous chapter the structured KAP questionnaire has been discussed and analysed. Based on the lessons learned it is suggested to shorten and streamline the questionnaire by rephrasing the questions and the pre-categorized answers. On the next five pages an improved version of the KAP questionnaire is presented, consisting of 39 questions. The data-entry programme is based on this questionnaire.

KAP BASELINE SURVEY QUESTIONNAIRE FOR WASEP

Interview number in this village (1-10):

Name of interviewer: Date of interview:

Name of person entering data: Date of data entry:

---

1. GENERAL QUESTIONS

Name :

1. Respondent : 1. Male 2. Female
2. Age : 1. 20-45 yrs 2. 45 +
3. Read Urdu : 1. No 2. Yes
4. Village :
5. Tehsil :
6. Region : 1. Chitral 2: Gilgit 3. Baltistan
7. Is a radio present in your house?
   1. No (go to question 9)
   2. Yes
   9. Don't know
8. If yes, do you listen regularly (at least once a week) ?
   1. No
   2. Yes, only to news
   3. Yes, both news and programmes
   9. Don't know

2. WATER

9. Is there a piped water supply system near your house?
   1. No
   2. Yes, communal standpost
   3. Yes, private standpost
10. Is it functioning (usually more than two hours of water/day) ?
    1. No
    2. Yes
11. From what sources do you take **drinking water** in the summer (*more than one answer possible*)?
    Probe once: 'do you use any other sources?'
    1. Directly out of the channel
    2. Water pit
    3. Directly from a spring
    4. Directly from nullah
    5. Directly from river
    6. From the tap
    9. Don't know, no answer
12. Which source from Q.11 is the most commonly used for **drinking water**?
    Please write the number:

13. If you (or 'the women in the house') collect **drinking water** from this source how long does it take to come and go in the summer? *Estimate the time by asking where the source is. Always probe ('Are you sure?') if the time is longer than 5 minutes!*
    1. 0 - 5 minutes
    2. 5 - 10 minutes
    3. 10 - 15 minutes
    4. 15 - 30 minutes
    5. More than 30 minutes
    9. Don't know, no answer

14. Why do you prefer **drinking water** from this source *(more than one answer possible)*?
    1. No other source available
    2. Nearby, easy
    3. Clean
    4. Cold
    5. Running water
    6. Little or no turbidity
    7. Other...
    9. don't know, no answer

15. Do you normally store **drinking water** in the house? (i.e keep water longer than two hours in a container).
    1. No
    2. Yes, but usually only in warm season (spring and summer)
    3. Yes, but usually only in cold season
    4. Yes, always
    9. Don't know

16. Do you use a water cooler for storing **drinking water**?
    1. No
    2. Yes
    9. Don't know

17. What is dirty **drinking water** *(more than one answer possible)*?
    1. Turbid (mixed with soil)
    2. Colour is not good (after clothes washing or irrigation)
    3. Visible particles (grass, worms, insects, leaves)
    4. Bacteria, gerasims (something you cannot see with the eye)
    5. Stagnant
    6. Taste is not good
    7. Other,...
    9. Don't know

18. What is a gerasim *(only one answer)*?
    1. Worm or any other type of small insect
    2. Something you cannot see with the eye/bacteria
    3. Dirt (without the respondent mentioning invisibility)
    4. Other,....
    9. Don't know

19. What methods **do you know** for keeping or making the **drinking water** clean (*more than one answer possible)*?
    1. Covering
    2. Using a water cooler or special container
    3. Settling (in a pit or any container)
    4. Cleaning the storage container
    5. Use of a ladle or jug for taking water
    6. Put the water on a place elevated from the ground
    7. Filtering with cloth
    8. Boiling
    9. Using a Musaffa filter bag
    10. Using bleaching powder
    99. Don't know

20. What methods **do you practice** (*use the numbers of Q.19*)?

3. DIARRHOEA

21. What do you think are the causes of diarrhoea (*more than one answer possible*)?
    Probe once: 'Do you know any other reasons?'
    1. Unbalanced food or fruit (eating too much, too hot or cold)
    2. Old or unwashed food and fruit
    3. Mother's milk or bottle feeding
    4. Dirty water
    5. Flies
    6. Germs, bacteria
    7. No clean environment for example open defaecation
    8. No clean hands or poor personal hygiene
    9. Change of weather, very hot weather, rain
    10. Outside our control (related to god, evil eye, jin/parri)
    11. Other,....
    99. Don't know / no answer

22. Do you know how you can avoid/prevent yourself or your family members from getting diarrhoea? It means measures to be taken before becoming ill (more than one answer possible)
    1. Nothing can prevent diarrhoea
    2. Eating less food or fruit
    3. Protecting food (covering, no flies, warm fresh food, re-heating)
    4. Protecting water (take clear water, covering, treatment, boiling)
    5. Protecting environment (latrines, stop open defaecation)
    6. Washing hands
    7 Good personal hygiene
    9. Don't know / no answer

23. Do you think children usually have worms in their stomach?
    1. No
    2. Yes
    9. Don't know / no answer

24. Have members of your household taken medicines against worms within the last year?
    1. No
    2. Yes
    9. Don't know / no answer

25. Can you get diarrhoea from your **normal** drinking water?
    1. No
    2. Yes
    9. Don't know / no answer

26. Do you think that human faeces can spread diarrhoea?
    1. No (go to question 28)
    2. Yes
    9. Don't know / no answer

27. If yes, how?
    1. Flies on the food
    2. Wind, dust or smell
    3. Water
    4. From one person to another (hands, feet)
    5. Other..
    9. Don't know / no answer

28. Do you think that the faeces of a child of 3 months can spread diarrhoea to other people?
    1. No
    2. Yes
    9. Don't know / no answer

29. At what age do children's faeces become a possible way of spreading diarrhoea?
    1. Younger then 6 months
    2. 6 - 12 months, or when a child starts eating solid food
    3. 1 - 3 years
    4. Older then 3 years
    5. Never (because children's faeces are harmless)
    9. Don't know / no answer

30. If a child is defaecating in its shalwaar how do women clean the clothes?
    1. Clean with a piece of cloth (without water)
    2. Wash under the tap
    3. Wash in any channel
    4. Wash in channel not used for drinking
    5. Wash and throw waste water in a field or place away from a water source
    9. Don't know / no answer

4. SANITATION

31. Do you have any type of latrine (pit latrine, compost latrine, *qem*, pour-flush latrine) in your house (more than one answer possible)
    1. No (go to question 34).
    2. Yes, a traditional pit or compost latrine
    3. Yes, an improved pit or compost latrine
    4. Yes, a pour-flush latrine
    9. Don't know / no answer

32. How often do you and your family use this latrine?
    1. Very often/always
    2. Not very often/sometimes
    3. Never
    9. Don't know

33. Do your household members use the latrine for bathing?
    1. No
    2. Yes
    9. Don't know / no answer

OPTIONAL
IF LATRINE PRESENT, CARRY OUT THE SANITATION MONITORING FORMAT

5. PERSONAL HYGIENE / HAND CLEANLINESS

34. Do you have a special bathroom (not a latrine) in your house?
    1. No bathroom
    2. No separate bathroom because we use the latrine for bathing
    3. Yes, we have a separate bathroom
    9. Don't know / no answer

35. Can apparently clean hands spread diarrhoea from one person to another?
    (Interviewer: show your own hands to the respondent)
    1. No
    2. Yes
    9. Don't know / no answer

36. If yes, how do you think these hands can spread diarrhoea *(only one answer possible)*?
    1. Visible dirt on the hands
    2. Dirt or dust we cannot see
    3. Bacteria (gerasims)
    9. Don't know / no answer

37. When do you wash your hands (*more than one answer possible*)?
    1. After waking up in the morning
    2. After defaecation
    3. After work with animals
    4. After work in fields or compound
    5. After changing nappies
    6. After eating
    7. After cleaning utensils
    8. Before eating
    9. Before feeding children
    10. Before preparing food
    11. Before going outside to visit others
    12. Before prayers
    13. When hands are visibly dirty
    99. Don't know / no answer

38. Do you **clean** your hands after defaecation?
    1. No
    2. Yes
    9. Don't know / no answer

39. If yes, how do you **clean** your hands?
    1. Wash with plain water
    2. Wash with water and sometimes soap
    3. Wash with water and usually soap
    9. Don't know / no answer

REFERENCES

AKHS
1991 A Health Knowledge, Attitude and Practice Survey of School Children in the Northern Areas. Gilgit: AKHS.

Aziz, K.M.A, et al.
1990 Water Supply, Sanitation and Hygiene Education. Report of a Health Impact Study in Mirzapur, Bangladesh. UNDP/World bank.

Bongaarts, John
1991 The KAP-Gap and the Unmet Need for Contraception. In: Population and Development Review. No.17 (2).

Boot, Marieke T. and Sandy Cairncross (eds.)
1993 Actions Speak. The study of Hygiene Behaviour in Water and Sanitation Projects. IRC and London School of Hygiene and Tropical Medicine.

Clarke, Lorna E.
1984 Knowledge, Attitude and Practice related to Water and Sanitation. Result of a study in six villages of North West Frontier Province of Pakistan. UNICEF.

Hall, David and Michael Adams
1991 Water, Sanitation, Hygiene & Health in the Qubane Valley, Lesotho.

Hardon, Anita et al.
1994 Applied Health Research Manual. Anthropology of Health and Health Care.

Korput, Jeanet, Muneeba and Michael A.M.Langendijk
1995 Hygiene Behaviour. Results of a Qualitative and Quantitative Study in Northern Pakistan. WSHHSP Issue Paper 6.

Lu, Aida G, Leticia Aballa and Leticia Postrado
1988 Filariasis: A Study of Knowledge, Attitudes and Practices of the People of Sorsogon. Social and Economic Research Project Reports No.1. UNDP/World bank/WHO.

New Era/Nepalconsult
1994 A study on Knowledge, Attitude and Practices Relating to Water and Sanitation. A Research Report. Volume I: Quantitative analysis, Volume II: Qualitative analysis.

Yoder, Stanley P. and Wilkins, K.
1988 Lesotho Baseline Survey Report: Knowledge and Practices Concerning Diarrhoea and Vaccinations. Philadelphia, University of Pennsylvania. Working Paper 109.

Stanton, B.F., J.D.Clemens, K.M.A. Aziz and M.Rahman
1987 Twenty-four-hour recall, knowledge-attitude-practice questionnaires, and direct observations of sanitary practices: a comparative study. In: Bulletin of the World Health Organization, No.65 (2): 217-222.

Wapenaar, H, N.G.Röling and A.W. van den Ban,
1989 Basisboek Voorlichtingskunde. (Introduction to extension science in Dutch).

WSHHSP
1995 Water and Sanitation Extension Programme. Proposal for AKDN Implementation.
1994 Position Papers 1-4

Zaidi, Asif 1992 Knowledge, Attitude and Practice regarding water in Katchi Abadis.. Karachi: AKF.

ANNEX 1: VILLAGES SELECTED FOR THE 1995 KAP-SURVEY

Villages were selected proportionate to the water supply coverage. The first three villages in each region on the following list were also covered during the domestic indepth studies:

CHITRAL (water supply coverage 35-40%)

1. Hassanabad	(Lotkoh)	: no water supply scheme
2. Jakhdeez	(Torkoh)	: water supply scheme
3. Damik	(Drosh)	: no water supply scheme
4. Werkup	(Torkoh)	: ,,
5. Chapali	(Mastuj)	: ,,
6. Strum	(Drosh)	: ,,
7. Siah Arkari	(Lotkoh)	: ,,
8. Sanik	(Lotkoh)	: water supply scheme
9. Grin Lasht	(Mastuj)	: ,,
10.Kesu	(Drosh)	: ,,

GILGIT: (water supply coverage 30%)

1. Sandi Bala	(Yasin)	: no water supply scheme
2. Salmanabad	(Hunza)	: water supply scheme
3. Jaglote	(Gilgit)	: water supply scheme
4. Japuke	(Punial)	: water supply scheme
5. Shutmarg	(Gojal)	: no water supply scheme
6. Janrot	(Gupis)	: ,,
7. Handrap	(Gupis)	: ,,
8. Qurkulti	(Yasin)	: ,,
9. Daeen	(Ishkoman)	: ,,
10.Bargin	(Gilgit)	: ,,

BALTISTAN: (water supply coverage 35%)

1. Thorgo bala	(Skardu)	: water supply scheme
2. Shigri bala	(Skardu)	: no water supply
3. Surmo	(Mashabrum)	: partly water supply scheme
4. Kuro	(Ghanche)	: water supply scheme
5. Nit Daso	(Shigar)	: ,,
6. Harpo	(Rondu)	: no water supply scheme
7. Wazirpur	(Shigar)	: ,,
8. Brolmo	(Kharmang)	: ,,
9. Chundo	(Ghanche)	: ,,
10.Khaney	(Mashabrum)	: ,,