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Bringing the Consumer to the Table: A Research Tool for Assessing Consumer Perceptions and Practice of Household Water Treatment Methods

May 2006

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The full survey, brief report, list of variables and SPSS analysis program are available through the HIP website at <http://www.hip.watsan.net>



HOUSEHOLD BASED DRINKING WATER TREATMENT STUDY

SECTION 1: DRINKING WATER

READ: As mentioned before, we are trying to learn about people's opinion and understandings of some health issues and issues related to drinking water. It is okay if you do not know the answer to a question.

WATER SOURCE/ SUPPLY

Q.No.	QUESTIONS, INSTRUCTIONS and SKIP PATTERN	RESPONSES	CODE	SKIP TO	OFFICE USE
101	What is the main source of water for your household for most of the year TRY TO FIND THE MAIN SOURCE (ONE) OF WATER THAT PROVIDES THE HOUSEHOLD WITH WATER FOR MOST PART OF THE YEAR, NOT CURRENT OR SEASONAL	Piped water in dwelling	11		
		Public tap	12		
		Private tube well/ bore hole	13		
		Public tube well/ bore hole	14		
		Private dug well	15		
		Public dug well	16		
		River/ Stream	17		
		Pond/ lake	18		
		Stone tap	19		
		Neighbors' private tap	20		
		Neighbors' tube well/ bore hole	21		
		Other (specify)	96		
102	Is water available from this <main souce> throughout the year?	Yes	1	105 Pg1	
		No	2		
103	If No, do you have another source when the water is unavailable at the main source?	Yes	1		
		No	2	105 Pg1	
104	What is the source of water that you use when water is unavailable at the main source?	Piped water in dwelling	11		
		Public tap	12		
		Private tube well/ bore hole	13		
		Public tube well/ bore hole	14		
		Private dug well	15		
		Public dug well	16		
		River/ Stream	17		
		Pond/ lake	18		
		Stone tap	19		
		Neighbors' private tap	20		
		Neighbors' tube well/ bore hole	21		
		Other (specify)	96		
105	Do you have a separate source of water for drinking purposes?	Yes	1		
		No	2	108 Pg2	
106	If you have a separate source for drinking water, what is the source?	Piped water in dwelling	11		
		Public tap	12		
		Private tube well/ bore hole	13		
		Public tube well/ bore hole	14		
		Private dug well	15		
		Public dug well	16		
		River/ Stream	17		
		Pond/ lake	18		
		Stone tap	19		
		Neighbors' private tap	20		
		Neighbors' tube well/ bore hole	21		
		Other (specify)	96		

Brief Survey

HOUSEHOLD BASED DRINKING WATER TREATMENT STUDY

Q.No.	QUESTIONS, INSTRUCTIONS and SKIP PATTERN	RESPONSES	CODE	SKIP TO	OFFICE USE
107	Why do you use a separate source for drinking water?	Water from main source is not clean	1		
		Nearby	2		
		Water is safe to drink	3		
		Drinking water has to be kept separate	4		
		Other (specify)	6		
		Don't Know	8		
108	How long does it take to make a round trip to your drinking water source, collect water and back? ASK TO CALCULATE THE TIME TAKEN TO GO, WAIT, FILL and COME BACK	Less than 15 minutes	1		
		15-30 minutes	2		
		More than 30 minutes	3		
		Water in the premises	4		
		Don't Know	8		
109	What do you usually use to bring water YOU DRINK to the house? (Ask them to show the vessel)	Small gagri – 10 litres	11		
		Larger gagri – 15 litres	12		
		Plastic Bucket	13		
		Metal Bucket	14		
		Clay pot or spherical vessel	15		
		Plastic Bottle	16		
		Jerkin	17		
		Other (specify)	96		
110	Do you use the same water for COOKING as drinking?	Yes	1		
		No	2		
WATER STORAGE, HANDLING, TREATMENT					
111	Do you pour the water into another container to store for drinking purpose ASK FOR THE USUAL PRACTICE	Stored in the same vessel	1	113 Pg2	
		Stored in same vessel, but kept separate	2	113 Pg2	
		Poured into another vessel as storage for drinking purposes	3		
112	If poured into another container, what kind of container is it? (Ask them to show the vessel)	Small gagri – 10 litres	11		
		Larger gagri – 15 litres	12		
		Plastic Bucket	13		
		Metal Bucket	14		
		Clay pot or spherical vessel	15		
		Plastic Bottle	16		
		Jerkin	17		
		Other (specify)	96		
113	Do you cover the container in which you store the drinking water?	Yes	1		
		No	2	115 Pg3	
		Sometimes	3		
114	Why do you cover the vessels in which you store the drinking water?	To prevent from dirt	1		
		To prevent from flies/ germs	2		
		To keep it clean and safe	3		
		Other (specify)	6		
114B	Could we please look around your household? Let's count together how many vessels could potentially be available for spring drinking water. Look for containers > 10 liters.	0	0		
		1	1		
		2	2		
		3	3		
		>3	4		

Brief Survey

HOUSEHOLD BASED DRINKING WATER TREATMENT STUDY

Q.No.	QUESTIONS, INSTRUCTIONS and SKIP PATTERN	RESPONSES	CODE	SKIP TO	OFFICE USE
115	How do you clean the drinking water storage containers? ASK FOR THE USUAL PRACTICE	Throw away the stale water before filling	1		
		Wash with water only	2		
		Scrub with Ash and water	3		
		Scrub with Clay and water	4		
		Other (specify)	6		
116	Do you clean the inside of the vessel in which you keep your water for drinking or other purpose?	Yes	1		
		No	2	118 Pg3	
117	How often do you clean the inside of the water vessel?	Every time fresh water is filled	11		
		Daily	12		
		Every alternate days	13		
		Once a week	14		
		Less than once a week	15		
		Never	16		
118	How do you take the water out from the vessel for drinking? ASK FOR THE USUAL PRACTICE	Drink from the source	1		
		Pour into another container	2		
		Dip the drinking mug	3		
		Extract with some vessel with handle	4		
		Other (specify)	6		
119	In your opinion, IS YOUR WATER ALWAYS, USUALLY, SOMETIMES, RARELY OR NEVER FIT FOR DRINKING??	Always	1		
		Usually	2		
		Sometimes	3		
		Rarely	4		
		Never	5		
		Don't know	8		
120	How do you know if your water is fit and clean for drinking? OPEN-ENDED				
121	Describe how you know if it is NOT fit clean for drinking? OPEN-ENDED				
122	Do you regularly suffer from any of these characteristics you just described?	Yes	1		
		No	2	124 Pg 3	
123	Which ones? OPEN-ENDED				
124	Are you aware of any methods to make drinking water better to drink?	Yes	1		
		No	2	201 Pg6	

HOUSEHOLD BASED DRINKING WATER TREATMENT STUDY

Q.No.	QUESTIONS, INSTRUCTIONS and SKIP PATTERN	RESPONSES	CODE	SKIP TO	OFFICE USE
125	What can you do to make water fit and clean for drinking? DO NOT READ RESPONSES MULTIPLE RESPONSES POSSIBLE CIRCLE CODES IF MENTIONED, OTHERWISE LEAVE BLANK ENCOURAGE BY ASKING IF THERE IS ANYTHING ELSE	By keeping water vessels covered	A		
		By boiling the water	B		
		By using some medicines (tablets)	C		
		By using some medicines (liquid)	D		
		By filtering water with water filters	E		
		Letting water settle/ Sedimentation	F		
		Use different source for drinking water	G		
		Solar disinfection	H		
		Sieve it through Cloth	I		
		Other (specify)	X		
126	In the past 30 days, have you done anything to make your water more fit and clean for drinking?	Yes	1		
		No	2	201 Pg6	
127	What have you done?	By keeping water vessels covered	A		
		By boiling the water	B		
		By using some medicines (tablets)	C		
		By using some medicines (liquid)	D		
		By filtering water with water filters	E		
		Letting water settle/ Sedimentation	F		
		Use different source for drinking water	G		
		Solar disinfection	H		
		Sieve it through Cloth	I		
		Other (specify)	X		
128a	Do you always treat your drinking water ?	Always	1	129 Pg4	
		Not always	2		
128b	If Not Always, when do you treat water to make it safe and healthy to drink?	During Rainy seasons	1		
		When someone is sick	2		
		Other (specify)	6		
129	Do you give this water to anyone in particular in the family -	Sick	A		
		Young children	B		
		Elders	C		
		Others - specify	X		
130	If water is treated, may I see the product or the device that you use to treat water? NOTE AS APPLICABLE	Bleach/ Chlorine is present	A		
		Bleach/ Chlorine container empty	B		
		Water Filter present	C		
		Solar disinfection present	D		
		Other Products (specify)	E		
		None Available	F		

HOUSEHOLD BASED DRINKING WATER TREATMENT STUDY

Q.No.	QUESTIONS, INSTRUCTIONS and SKIP PATTERN	RESPONSES	CODE	SKIP TO	OFFICE USE
131	In your, experience what do you like about this method? DO NOT READ RESPONSES MULTIPLE RESPONSES POSSIBLE ENCOURAGE BY ASKING IF THERE IS ANYTHING ELSE	Easy to use	A		
		Cheap/ affordable	B		
		No Smell	C		
		Does not take much time	D		
		Easily available	E		
		Other (specify)	X		
132	In your, experience what do you NOT like about this method? DO NOT READ RESPONSES MULTIPLE RESPONSES POSSIBLE ENCOURAGE BY ASKING IF THERE IS ANYTHING ELSE	Difficult to use	A		
		High costs/ expensive	B		
		Smell	C		
		Very slow process	D		
		Unavailable or no regular supply	E		
		Other (specify)	X		
133	In the past year or two, has your family done anything to make your water more fit and clean for drinking?	Yes	1		
		No	2	201 Pg6	
		Don't know/can't remember	8	201 Pg6	
134	What have you done?	By keeping water vessels covered	A		
		By boiling the water	B		
		By using some medicines (tablets)	C		
		By using some medicines (liquid)	D		
		By filtering water with water filters	E		
		Letting water settle/ Sedimentation	F		
		Use different source for drinking water	G		
		Solar disinfection	H		
		Sieve it through Cloth	I		
Other (specify)	X				
135	As you can remember, what did you like about this method? DO NOT READ RESPONSES MULTIPLE RESPONSES POSSIBLE ENCOURAGE BY ASKING IF THERE IS ANYTHING ELSE	Easy to use	A		
		Cheap/ affordable	B		
		No Smell	C		
		Does not take much time	D		
		Easily available	E		
		Other (specify)	X		
136	As you can remember, what did you NOT like about this method? DO NOT READ RESPONSES MULTIPLE RESPONSES POSSIBLE ENCOURAGE BY ASKING IF THERE IS ANYTHING ELSE	Difficult to use	A		
		High costs/ expensive	B		
		Smell	C		
		Very slow process	D		
		Unavailable or no regular supply	E		
		Other (specify)	X		
137	Why did you stop using that method? OPEN-ENDED				

HOUSEHOLD BASED DRINKING WATER TREATMENT STUDY

Q.No.	QUESTIONS, INSTRUCTIONS and SKIP PATTERN	RESPONSES	CODE	SKIP TO	OFFICE USE
201	What is the age and sex of children under 5 years old living in this house?				
	201a Youngest	201a1 Age (months) _____			
		201a2 Sex			
		Male	1		
		Female	2		
	201b Next Older	201b1 Age (months) _____			
		201b2 Sex			
		Male	1		
		Female	2		
	201c Oldest	201c1 Age (months) _____			
		201c2 Sex			
		Male	1		
		Female	2		
202	During last 2 weeks have any of your children under 5 years old have diarrhea?	Yes - Youngest	A		
	MULTIPLE RESPONSES POSSIBLE	Yes - Next Older	B		
		Yes - Oldest	C		
		None	D	Sec C1	
		Don't Remember/ Don't Know	Z	Sec C1	
203	In your opinion, what might be the main reasons for diarrhea?	dirty water	A		
		old/contaminated food	B		
		poor hygiene	C		
		poor sanitation	D		
		Other (specify)	X		
		Don't Know	Z		

Water Treatment Method Trials

Household Visit 1

Household ID (a5)									-	0	1
Date of Interview			2005	a7							
		Day	Month								
Method Assigned	_____										

ONLY FOR THE INTERVIEWER

Logistics Required

- *Water Testing Vile*
- *Water Treatment Methods (One of the following for each household)*
 - *SODIS - PET Bottles, Instruction sheet*
 - *Chlorination - Chlorination Bottle*
 - *Boiling - Kettle*
 - *CS Filter - CS Filter, toothbrush, Instruction guide included in the CS filter box*
- *Cloth for sieving/straining*
- *Steps of methods use guide*
- *Problem solving guide*

Objectives of Household Visit 1

- *Build rapport*
- *Administer Abbreviated survey*
- *Demonstration/Assignment of method*
- *Explain mother is requested to work with us to help design a very important new program, to try out this water cleaning system/method, tell us what they think about the water system.*
- *Note reactions/questions*
- *Note any immediate problem-solving*
- *Take water sample from vessel that is the PRIMARY storage source for household drinking water.*
- *Brief qualitative questions/responses*

(After administrating the Abbreviated Questionnaire), interviewer says:

Thank you for answering all the questions. Now, we will talk about the water cleaning method...

Assign a treatment method to the participant of the product trial study. Note: if the mother is using any method (refer to question 127 in the abbreviated questionnaire) and if it's the same method that she is being assigned, request her to try the method that you are giving and provide feedback on the new method.

First, I'd like to explain a little about the water you drink and cook with. Even though your water may look, smell, and taste clean, this water can sometimes contain germs that can cause diarrhea and other diseases.

There are some new, and some traditional ways that people can use to make water better to drink. We'd like to share one such method with you, and ask you to try it out for a month. We'll come talk to you again about it after 3 or 4 days, and hear about the experience. If there are things you don't like about cleaning your water this new way, we'll work with you to solve any problems you might be having with using it. This method has been PROVEN effective by doctors and people use it all around the world.

Household Question Guide: Visit 1

HOUSEHOLD BASED DRINKING WATER TREATMENT STUDY

We're NOT checking to see if you are doing it right, but rather to learn from you how it is for you and your family to treat your water this way ... We are also asking our advice, and want to hear from you if some changes would make it better... We're learning from you. Based on the feedback from you [... hearing you talk about it with me] we can later on design a program to offer these water cleaning methods to lots of people in your district in a way that makes sense.

Okay, now I will I show you how this method is used. We're going to review each little step, even though it may seem obvious. But we want to make sure that we review the steps needed to really clean the water for drinking.

You are most welcome to invite your husband or mother-in-law to sit in during demonstration and participate.

Note to interviewer: Use the steps of method use guide for reference.

Assure them that this method has been PROVEN effective by doctors, and people use it all around the world.

We'd like to leave this with you, and have you use it for a month. We're inviting you to use it in the normal use, and we know that means it could get normal wear and tear, that it's now new. Please, it's OK. We understand that the kids might knock it over [depending on the method], something might get scratched, if it's a little bit spoiled it's OK.

Q1. Any questions or doubts?

Note doubts, and try to reassure or solve... **[note both doubts and resolutions]:**

PROBLEM	REASSURANCE OR SOLUTION
D-a	S-a
D-b	S-b
D-c	S-c
D-d	S-d

Probes:

Do you feel confident that this method of cleaning the water can work?

Does this seem like something you can do for a month?

Interviewer, enter doubts above. Check and note specifically if respondent felt confident about method:

[] Felt confident (Note any comment of substance):

If no, encourage them to try, and try to solve WITH THEM, any doubts.

- *Are you willing to try for a month and see?*

Household Question Guide: Visit 1

Tool for Exploring Consumer Perception and Practice of Water Treatment
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HOUSEHOLD BASED DRINKING WATER TREATMENT STUDY

- Ask them to repeat the steps OR show you how to use. (again this will depend on the method). Correct and problem solve, if needed.

Interviewer, check that respondent can demonstrate or explain all steps and procedures for cleaning/treating water.

[] Respondent understands method use and is committed to use

[] Respondent understands method use and but seems reluctant to use

[] The respondent doesn't understand how to use method.

Note: Interviewer should NEVER check this box... do not leave household if respondent doesn't yet understand method use.

COLLECT WATER SAMPLE: Tell the mother that we will collect a little bit of water from her drinking water storage and to test for how fit and clean the water is for drinking. **Inform her** that you will do this during all three visits. **Assure her that it takes a while to get the results**, but that we will share them with the family after the 30 days, during the final visit. We are going to take the water and compare it with the water available in the whole district. (Take a sample of the water **directly** from the storage. The vile in which the water is collected should be **PRE**-marked with a number and this number should match with the interview number. Please write 01 after the interview number. **This would be the identification number of the water sample**)

[] CHECK THAT WATER SAMPLE WAS TAKEN

*We'd like to come back soon to make sure everything seems OK, and hear about your experience. Would that be alright with you, is it OK if we come back after 3-4 days? (Confirm date and Time for next visit **NOTE on SCHEDULING SHEET**).*

Please, let me say that even if you don't like this method, or for some reason you got busy and don't use it, that's OK.... don't hide from us. If there are problems, we'll help solve them together.

For chlorination users, tell them that the chlorine in the bottle is enough for a month's use.

Thank the mother for her time and request her to be at home during your second visit. Remind her of the earlier agreed upon time and date of the second visit.

Household Visit 2: After 3 or 4days

Household ID (a5)									-	0	2
Interview date			2005	a7							
	Day	Month									
Method Assigned	_____										

ONLY FOR THE INTERVIEWER

Logistics Required/ Preparation for Visit Two

- Water Testing Vile
- Review the baseline questionnaire responses
- Problem solving guide

Objectives of Household Visit 2

- Initial reactions to use.
- Assessment of water by “critical factors”: attractiveness, acceptability, effort, perception of effectiveness, value.
- Assess if the water is better or worse than what they did before they had the ‘PoU devise’, and why.
- Test of water quality.
- Problem-solve, if needed. If the mother does not seem to be motivated to use the method, encourage her to try again.
- Request for continuation.
- Set date for next visit.

The interviewer must review the visit 1 responses to make sure they know their respondents.

Hello. Thank you for agreeing to see us again, your contribution is so very important to helping to bring safe water options to our homes.

Q.2.1. Tell me, how has it been with the [new] water cleaning system/method? What do you think of it?

As I explained earlier, I’d like to ask you some questions about how you are using the system, how you like it, what’s been difficult. Remember, please, we are not looking for “right” answers. We see you as our advisor, and we are looking to learn from your experience, get information from you and give you information. So feel free to tell us what you like.

2.2. a. *To begin, are you using the water system? Did you use it today? Yesterday?*

Interviewer note:

[] Currently using (today or yesterday)

If the respondent is not currently using the water treatment method, find out why she is not using the water treatment method. If the respondent is facing any difficulty with using this new system of water treatment try to solve her problems. Use the Problem – Solution Guide. Take note of the problem and the solution given to solve her problem. (**YOUR WORKSHEET** is on the last page of this interview...)

2.2. b. *Could you please demonstrate to me how you have been using your water system? You can just walk me through what you do, demonstrate as if it were a typical use.*

Interviewer note steps:

-
-
-
-

Coding: Note if method was used.

[] As instructed

[] With modifications. Note modifications.

-
-
-
-

[IF NOT OBVIOUS, ASK, OTHERWISE NOTE:]

2.3. *Please tell me, is this the same container that you use to collect the water?*

[] Same container - specify

[] Different container – specify where storing

2.4. *Is this the same container you used to treat the water in?*

Note if water is stored in different container from the one used to purify.

[] Same container - (specify vessel type _____)

[] Different container - (specify vessel type _____)

2.5. *Do you use bottles to drink or store water in your house? (see the bottles and take notes)*

Bottles for Drinking _____

Bottles for Storing: _____

2.6. *Do you stick your mouth to the bottle when you drink OR do you pour the water in your mouth without touching it with your lips?*

[] mouth to the bottle

[] pour the water into their mouth without touching it with your lips?

2.7. Do you notice anything different since you started using the new water system? What? Tell me what you like about the new water purifying system. What words would you use to describe your new water?

(In cases where some family members/community members are present during the interview please take their responses but in separate column)

2.8. a. How do you like the **Taste?** How would you describe it?

Mother's Response	Family Members' Response	Community Members' Response
• ----- -----	• ----- -----	• ----- -----
• ----- -----	• ----- -----	• ----- -----
• ----- -----	• ----- -----	• ----- -----
• ----- -----	• ----- -----	• ----- -----

....Is it better, worse or same as before?

-
-
-
-

Is it good for drinking?

-
-
-
-

2.8. b. How do you like the **Smell** of water? How would you describe it?

Mother's Response	Family Members' Response	Community Members' Response
• ----- -----	• ----- -----	• ----- -----
• ----- -----	• ----- -----	• ----- -----
• ----- -----	• ----- -----	• ----- -----
• ----- -----	• ----- -----	• ----- -----

Is it better, worse or same as before?

-
-
-
-

Is it good for drinking?

-
-
-
-

2.8. c. *After treating the water using this system how does the water look? And how does it feel? (smooth, turbid, etc.) What words would you use to describe it?*

Mother's Response

- _____

- _____

- _____

- _____

Family Members' Response

- _____

- _____

- _____

- _____

Community Members' Response

- _____

- _____

- _____

- _____

....Is it better, worse or same as before?

-
-
-
-

Is it good for drinking?

-
-
-
-

2.8. d. *And lastly, how do you like the "Temperature"?*

Mother's Response

- _____

- _____

- _____

- _____

Family Members' Response

- _____

- _____

- _____

- _____

Community Members' Response

- _____

- _____

- _____

- _____

....Is it better, worse or same as before?

-
-
-
-

Is it good for drinking?

-
-
-
-

- **TRY TO DRAW OUT** any cultural prohibitions OR FACILITATORS regarding standing water (prohibitions on drinking water that has stayed overnight.)

2.8.d. *Is there anything else about this treated water after cleaning it with your method that I didn't ask you about, that you noticed, that you like or don't like?*

-
-
-
-

2.9. *Now I'm going to ask you something about the effort it takes to clean your water this way, if it seemed convenient or laborious.*

a. *What makes it hard to use this system to purify regularly?*

2.9. b. *Have you noticed anything that makes it easier to do this?*

2.9. c. *Would you say it is simple to do, or a lot of work?*

Does it seem worth the effort? Why?

(Only for filter users, ask about flow rate...)

If the mother talks about problems, help her solve the problems. Refer to the problem-solution guide, if necessary.

2.9. d. *About how much time do you need to dedicate each day to treat enough water for your family, mind you, I am not asking you about fetching the water, just the cleaning part?*

2.9. e. *Does that seem like a valuable use of that time, is it worth spending your precious time in a busy day doing this?*

2.10. a. *What, if anything, do you do to clean and or maintain the system?*

2.10. b. *How often do you do that?*

2.10. c. *When was the last time you did anything?*

2.10. d. *Can I look inside?* (note any green growth, other visible cleanliness issues)

Observe and note

2.11. *Do you reserve this water for any "special" uses? Which ones? Does everyone drink this water, or is it for certain family members? Who? Why?*

2.12. *Did you drink only treated water or also untreated water? When did you drink treated water?*

2.13. *In your opinion, does this new water seem fit to drink?does the new way of fixing your water make it good water?*

2.14. *Are you fully satisfied, somewhat satisfied or not satisfied with this new drinking water?*

- fully satisfied
- somewhat satisfied
- not satisfied

If fully or somewhat satisfied tell me why. Probe for responses including all characteristics.

If not satisfied ... *tell me why. Probe for responses including all characteristics.*

2.15.a. *Have you talked about this new water system to anybody? What did you say about it?*

2.15. b. *What did your family think about use of this method? Specify family members (husband, mother in law)*

What did they say? Probe to get more information.

2.16. *Would you recommend this method to someone? What would you say about it? Who would you recommend it to?*

Is this method good for everyone for your community? If not who is it best for? Why do you think is good for some people and not good for others? Probe for responses.

2.17. *You've put a lot of time and effort into trying this method to make your water clean for drinking? Do you think it is worth it?*

2.18. *Ask about the PERCEIVED cost for the method that the mother has been assigned to - How much to you **think** this product is worth (in terms of cost)?*

*Would you be **willing** to pay that much?*

*Would you be **able** to pay?*

Let me tell you the cost of this method [Adjust for country cost] Mention the estimated cost of only one method that you have assigned the mother to use.

Collaidal Silver filter	Rs.800.
Boiling:	just the cost of fuel
SODIS:	3 rps per 1.5 lit pet bottle
Chlorination	Rs.30 for one bottle (contains 250 ml enough for one month for a 6 member family.

2.19. *I am telling you this so that you know the price. I am not trying to sell it to you I just want your opinion. If you had a chance to buy it by paying some money on an installment basis, would this be something you would be interested to do?*

2.20. *We are almost done, but before I leave please tell me if there are any other problems with the method use that you want to share with me. Interviewer refer back to first question of the interview, of 'how it's going', and bring any problems back for discussion... I will help you solve the problem.*

PROBLEM	REASSURANCE OR SOLUTION
D-a	S-a
D-b	S-b
D-c	S-c
D-d	S-d

Use the problem solution guide to discuss the problems.

COLLECT WATER SAMPLE: Tell the mother that we will collect a little bit of water from her drinking water storage and to test for how fit and clean the water is for drinking. **Inform her** that you will do this again at the last visit. **Assure her that it takes a while to get the results**, but that we will share them with the family after the 30 days, during the final visit. We are going to take the water and compare it with the water available in the whole district. (Take a sample of the water **directly** from the storage. The vile in which the water is collected should be **PRE**marked with a number and this number should match with the interview number. Please write 02 after the interview number. **This would be the identification number of the water sample**)

[] CHECK THAT WATER SAMPLE WAS TAKEN

Closing : Very Important

As I had mentioned earlier, I will come back to see you again after a month. Fix a tentative date and time for the next meeting.

NOTE DATE AND TIME OF NEXT VISIT BELOW, AS WELL AS IMMEDIATELY ON SCHEDULING SHEET TO ASSURE THERE IS NO CONFLICT WITH OTHER SCHEDULED INTERVIEWS...

Thank the mother and the family for their time and cooperation and remind them of the next visit.

Household Visit 3 Guide: After 30 days

Household ID (a5)

									-	0	3
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Interview Date

		2005	a7
Day	Month		

Method Assigned _____

ONLY FOR THE INTERVIEWER

Logistics Required

- *Water Treatment Methods (All of the following for each household)*
 - *SODIS - PET Bottles, Instruction sheet*
 - *Chlorination - Chlorination Bottle*
 - *Boiling - Kettle*
 - *CS Filter - CS Filter, toothbrush, Instruction guide included in the CS filter box*
- *Cloth for sieving/straining*
- *SODIS Water Sample*
- *Steps of methods use guide*
- *Problem solving guide*

Objectives of Household Visit 3

- *Reactions to use of a method for longer time.*
- *Assessment of water by "critical factors": attractiveness, acceptability, effort, perception of effectiveness, value.*
- *Assess if the water is better or worse than what they did before they had the 'PoU devise', and why.*
- *Test of water quality.*
- *Problem-solving, if needed.*
- *Request for continuation.*
- *Demonstrate other PoU methods*
- *Thank for trying out the method.*

The interviewer must review the visit 1 AND 2 responses to make sure they know their respondents.

Hello. Thank you for agreeing to see us again, your contribution is so very important to helping to bring safe water options to our homes.

Q.3.1. a. *Tell me, how has it been with the [new] water cleaning system/method? What do you think of it?*

As I explained earlier, I'd like to ask you some questions about how you are using the system, how you like it, what's been difficult. Remember, please, we are not looking for "right" answers. We see you as our advisor, and we are looking to learn from your experience, get information from you and give you information. So feel free to tell us what you like.

3.2. a. *To begin, are you using the water system? Did you use it today? Yesterday?*

Interviewer note:

Currently using (today or yesterday)

If the respondent is not currently using the water treatment method, find out why she is not using the water treatment method. If the respondent is facing any difficulty with using this new system of water treatment try to solve her problems. Use the Problem – Solution Guide. Take note of the problem and the solution given to solve her problem.

3.2. b. *Could you please demonstrate to me how you have been using your water system? You can just walk me through what you do, demonstrate as if it were a typical use.*

Interviewer note steps:

-
-
-
-

Coding: Note if method was used.

As instructed

With modifications. Note modifications.

-
-
-
-

[IF NOT OBVIOUS, ASK, OTHERWISE NOTE:]

3.3. *Please tell me, is this the same container that you use to collect the water?*

Same container - specify

Different container – specify where storing

3.4. *Is this the same container you used to treat the water in?*

Note if water is stored in different container from the one used to purify.

Same container - (specify vessel type _____)

Different container – (specify vessel type _____)

3.5. *Do you use bottles to drink or store water in your house? (see the bottles and take notes)*

Bottles for Drinking: _____

Bottles for Storing: _____

3.6. *Do you stick your mouth to the bottle when you drink OR do you pour the water in your mouth without touching it with your lips?*

[] mouth to the bottle

[] pour the water INTO their mouth without touching it with their lips?

3.7 *Do you notice anything different since you started using the new water system? What? Tell me what you like about the new water purifying system. What words would you use to describe your new water?*

(In cases where some family members/community members are present during the interview please take their responses but in separate column)

3.8. a. *How do you like the **Taste?** How would you describe it?*

Mother's Response

• -----

 • -----

 • -----

 • -----

 • -----

Family Members' Response

• -----

 • -----

 • -----

 • -----

 • -----

Community Members' Response

• -----

 • -----

 • -----

 • -----

 • -----

....Is it better, worse or same as before?

•
 •
 •
 •

Is it good for drinking?

•
 •
 •
 •

3.8. b. *How do you like the **Smell** of water? How would you describe it?*

Mother's Response

• -----

 • -----

 • -----

 • -----

 • -----

Family Members' Response

• -----

 • -----

 • -----

 • -----

 • -----

Community Members' Response

• -----

 • -----

 • -----

 • -----

 • -----

Is it better, worse or same as before?

-
-
-
-

Is it good for drinking?

-
-
-
-

3.8. c. *After treating the water using this system how does the water look? And how does it feel? (smooth, turbid, etc.) What words would you use to describe it?*

Mother's Response

- -----

- -----

- -----

- -----

Family Members' Response

- -----

- -----

- -----

- -----

Community Members' Response

- -----

- -----

- -----

- -----

....Is it better, worse or same as before?

-
-
-
-

Is it good for drinking?

-
-
-
-

3.8. d. *And lastly, how do you like the "Temperature"?*

Mother's Response

- -----

- -----

- -----

- -----

Family Members' Response

- -----

- -----

- -----

- -----

Community Members' Response

- -----

- -----

- -----

- -----

....Is it better, worse or same as before?

-
-
-
-

Is it good for drinking?

-
-
-
-

- **TRY TO DRAW OUT** any cultural prohibitions OR FACILITATORS regarding standing water (prohibitions on drinking water that has stayed overnight.)

3.8.d. *Is there anything else about this treated water after cleaning it with your method that I didn't ask you about, that you noticed, that you like or don't like?*

-
-
-
-

3.9. *Now I'm going to ask you something about the effort it takes to clean your water this way, if it seemed convenient or laborious.*

a. *What makes it hard to use this system to purify regularly?*

3.9. b. *Have you noticed anything that makes it easier to do this?*

3.9. c. *Would you say it is simple to do, or a lot of work?*

Does it seem worth the effort? Why?

(Only for filter users, ask about flow rate...)

If the mother talks about problems, help her solve the problems. Refer to the problem-solution guide, if necessary.

3.9. d. *About how much time do you need to dedicate each day to treat enough water for your family, mind you, I am not asking you about fetching the water, just the cleaning part?*

3.9. e. *Does that seem like a valuable use of that time, is it worth spending your precious time in a busy day doing this?*

3.10. a. *What, if anything, do you do to clean and or maintain the system?*

3.10. b. *How often do you do that?*

3.10. c. *When was the last time you did anything?*

3.10. d. *Can I look inside?* (note any green growth, other visible cleanliness issues)

Observe and note

3.11. *Do you reserve this water for any "special" uses? Which ones? Does everyone drink this water, or is it for certain family members? Who? Why?*

3.12. *Did you drink only treated water or also untreated water? When did you drink treated water?*

3.13. *In your opinion, does this new water seem fit to drink?does the new way of fixing your water make it good water?*

3.14. *Are you fully satisfied, somewhat satisfied or not satisfied with this new drinking water?*

- fully satisfied
- somewhat satisfied
- not satisfied

If fully or somewhat satisfied *tell me why.* Probe for responses including all characteristics.

If not satisfied ... *tell me why.* Probe for responses including all characteristics.

3.15. a. *Have you talked about this new water system to anybody? What did you say about it?*

3.15. b. *What did your family think about use of this method? Specify family members (husband, mother in law)*

What did they say? Probe to get more information.

3.16. *Would you recommend this method to someone? What would you say about it? Who would you recommend it to?*

Is this method good for everyone for your community? If not who is it best for? Why do you think is good for some people and not good for others? Probe for responses.

3.17. *You've put a lot of time and effort into trying this method to make your water clean for drinking. Do you think it is worth it?*

3.18. *We are almost done, but before I leave please tell me ... **Now that you have used this method for a month, tell me if you had any problems using it.***

Interviewer: Problem solve if needed. Use the problem solution guide to discuss her problems. Take notes of the problems mentioned and information given to solve the problem.

PROBLEM	REASSURANCE OR SOLUTION
D-a	S-a
D-b	S-b
D-c	S-c
D-d	S-d

COLLECT WATER SAMPLE: Tell the mother that we will collect a little bit of water from her drinking water storage and to test for how fit and clean the water is for drinking. Inform her that you will do this again at the last visit. Assure her that it takes a while to get the results, but that we will share them with the family after the 30 days, during the final visit. We are going to take the water and compare it with the water available in the whole district. (Take a sample of the water **directly** from the storage. The vile in which the water is collected should be **PRE**-marked with a number and this number should match with the interview number. Please write 02 after the interview number. **This would be the identification number of the water sample**)

[] CHECK THAT WATER SAMPLE WAS TAKEN

Closing : Very Important

GIVE MOTHER WATER TEST RESULTS AFTER THE SECOND VISIT. If water was contaminated at visit 2, explore with household some possible reasons for contamination. Review steps they are using to treat and note if correct. Review possible sources of secondary contamination.

COMPARING THE VARIOUS METHODS. Tell the mothers that now the clean water is ready to drink, so that it's now time for her to try out all the other methods. Request the mother to compare the various methods and see which ones she likes the best.

Let the respondent compare the various water treatment techniques. In comparison to the method they had been using for the last one month and the method mentioned below in the right column below, ask the respondents which techniques they prefer with reference to various attributes.

Please tick the water treatment method that the respondent had been using over the last one month.

Boiling	<input type="checkbox"/>	Chlorination	<input type="checkbox"/>
CS Filter	<input type="checkbox"/>	SODIS	<input type="checkbox"/>

Attributes	Respondent Mothers Response	Family and community members response
Taste		
Smell		
Texture		
Temperature		
Effort		
Time		
Price		
Others		

HOUSEHOLD BASED DRINKING WATER TREATMENT STUDY

Method 1 – Boiling

Attributes	Respondent Mothers Response	Family and community members response	Please choose one as per preference	
			Method used over last month	Boiling
Taste				
Smell				
Texture				
Temperature				
Effort				
Time				
Price				
Others				

Method 2 – CS Filter

Attributes	Respondent Mothers Response	Family and community members response	Please choose one as per preference	
			Method used over last month	CS Filter
Taste				
Smell				
Texture				
Temperature				
Effort				
Time				
Price Rs. 800				
Others				

HOUSEHOLD BASED DRINKING WATER TREATMENT STUDY

Method 3 – Chlorination

Attributes	Respondent Mothers Response	Family and community members response	Please choose one as per preference	
			Method used over last month	Chlorination
Taste				
Smell				
Texture				
Temperature				
Effort				
Time				
Price Rs. 30 (Enough for one month for a family of 6 members)				
Others				

Method 4 – SODIS

Attributes	Respondent Mothers Response	Family and community members response	Please choose one as per preference	
			Method used over last month	SODIS
Taste				
Smell				
Texture				
Temperature				
Effort				
Time				
Price				
Others				

At the end... We would like to thank you very much for all your time and patience. The information that you have given to us will be of great use for the project planning.

STEPS OF USING the WATER TREATMENT METHODS

Common points to remember regarding clean water use

- Clean the water container with soap/ash and water from inside and outside. (No visible element should be seen inside the container).
 - Avoid dipping hands/or unclean vessel in the water container where the water is stored for drinking.
 - A narrow mouth vessel or container is best to store drinking water.
 - Wash your hands with soap/ash water before demonstrating PoU methods.
-

SODIS

Materials Required:

Transparent Pet bottles. Such bottles are available in Nepal that sell cold drinks. The diameter of the bottle should be 10 cm at the max.

Steps:

1. Remove the labels from the bottle. You may need to soak the bottle in the water for about an hour to get rid of the glue that sticks the label. Do not scratch the bottle as it may spoil the bottle.
2. Once the label and the glue are completely removed, clean the bottle from inside and outside. You may use soap and water to clean the bottle. Make sure the soap is completely washed off before use.
3. Fill the bottle half with water that is used to drink in your house. Make sure that the water is clear (If the water is 'turbid,' strain it first through layers of cloth OR distill. Let it settle in a separate receptacle for a few hours then pour into the bottle).
4. Close the bottle with its cap tightly and shake it for 20 times OR for 20 seconds.
5. After shaking the bottle, open the cap and fill the full bottle with the water that you used for drinking in your house. Make sure that there is no air in the bottle. There should not be any bubbles in the bottle.
6. Place the bottle either on the roof of the house OR in a place where the sun stays for long and is not reached by children. The bottle should be tilted or laid flat. It should not be standing straight in the sun. Leave the bottle facing towards the sun for about 6-8 hours in a sunny day. On a cloudy day leave the bottle for 2 days. During the days when it is raining SODIS method does not work. It is best to keep the bottles on the tin roof.
7. By leaving the bottle in the sun we allow the heat & the UV rays to kill the bacteria in the water and make the water drinkable. This SODIS water can be used for a week. Even when it is clouded, the sun is still working to clean the water, but it takes longer (2 days)
8. After SODIS you may want to drink the water straight from the bottle OR store it in a separate container. Do note that if you stick your mouth directly to the bottle the food particles from the mouth can get inside the bottle. These food particles can grow and makes the inside of the bottle greenish and dirty. To clean this bottle you may put rice grains/or egg-shell inside the bottle and shake it strongly. Make sure to clean the container with soap/ash and water.
9. Save the SODIS water either in the bottle itself or in a separate container in a cool place. This SODIS water can be used for a week.

CHLORINATION

Use the last line of the cap of the bottle to measure chlorine for 1.5 litres water and next to last line measurement of chlorine for 10 litres of water. (Interviewers must be aware that the upper most line of the cap has 5ml chlorine, whereas the second line of the cap from the top can contain 3.6ml chlorine. The interviewers need not give the ml information to the mothers as it might confuse them, instead use the line to explain measurement.

Materials required:

Bucket or any other water container, plastic containers are preferable and chlorine bottle.

Steps:

1. Clean the water container with soap/ash and water from inside and outside. Remove any visible dirt/element present in the container. Make sure the soap/ash is completely washed off before use.
2. Fill the container fully with water that is used to drink in your house. Make sure that the water is clear (If the water is 'turbid,' strain it first through layers of cloth OR distill. Let it settle in a separate receptacle for a few hours then pour into the container where chlorine will be added).
3. Pour chlorine in the water and leave it for 30 minutes. Cover the container so that no dirt gets into the water. For a 10 litres container use the second top line to measure chlorine and for a 1.5 lit container use top line to measure chlorine. For chlorination plastic container is better than a metal container.
4. After 30 minutes of adding chlorine, the water is treated for drinking.
5. Keep the chlorinated water covered. Use clean glass, bottle or jug to drink the water.

COLLOIDAL SILVER (CS) FILTER

Materials required:

CS filter and tooth brush.

Steps:

1. Clean the colloidal silver filter. Remove dirt or visible elements from inside and outside of the filter and top and bottom buckets.
2. Wash the candle with water.
3. Assemble the CS Filter as shown in the figure.
4. Only after fitting the filter, use it for filtering water.
5. Fill water in the upper bucket.
6. Dispose of the first filtered of water. The water filtered for the first time should not be used for drinking.
7. Fill the bucket again and use the filtered water for drinking.
8. Clean the candle once a week with the provided tooth-brush or any household brush. **Do not remove the candle to clean!**
9. Keep filter on an alleviated platform, or raise onto stones or other objects for easy use.

Steps to care for the filter:

1. Do not keep the filter under the sun.
2. Do not boil the candle.
3. Do not use soap to clean the candle.

Things to remember while using filter:

1. Clean the candle with water so that no dirt or foreign particle is seen inside the filter.
2. Tightly fix the washer and the bolt of the filter.
3. Keep the filter in an even place.
4. Keep away the filter from direct sun to keep the water to cool.
5. Keep the tap of the filter tight.
6. Do not use soap to clean the filter.
7. Do not touch the tap with dirty hands.
8. Use soft toothbrush to clean the filter.

BOILING

Materials required:

Kettle or any other utensil to boil water; firewood/kerosene stove and match box.

1. Clean the kettle with soap/ash water and remove any dirt or visible particle from kettle.
2. Fill the kettle with the water that is used for drinking in your house.
3. Place the kettle on the fire. The kettle should be covered with a lid.
4. Keep the water on the fire until it is boiled. When you see the first big bubble of rolling water, it means that it is boiled.
5. Remove the kettle from the fire and the water is drinkable. Cool if desired.

6. If needed, transfer boiled water to a container that has been cleaned well with soap or ash. Avoid dipping hands or unclean vessels into the storage container. A narrow mouth vessel from which you can pour without dipping is best.

Problems and Problem-Solving Worksheet

PROBLEM	SOLUTION
CS Filter	
Flow rate/It's dripping slowly	Clean/scrub once a week No need to disassemble, use toothbrush
Lost toothbrush	Use other household abrasive Use any other form of household scrubber Do not clean the candle with soap
SODIS	
Lost cap	Need to find replacement cap or new bottle
Bottles falling/cracking	Have them show you where they are putting bottles. See if way to stabilize
Shaking bottles 10-20 shakes is too much work	Share that shaking makes the bottles taste 'fresh as a spring'
Don't like leaving bottles more than one day in cloudy weather.. makes water unpure	Any cultural tradition we can draw on Instead of unpure... our old folks
Water gets too warm	After water has been exposed appropriate time to the sun, put in cool dark place. Careful NOT to put into another container that may not be clean (e.g. old ceramic container)
Difficult filling bottles (narrow neck opening) from container used to carry from source.	Fill bottles right at source and carry back. Experiment with different fill/pour vessels to find one that pours well/easily. Find/invent a funnel (cut another bottle, preferable smaller) off to make a homemade funnel.
BOILING	
Takes too much fuel	Review how long they are boiling/see if boiling time can be reduced (just need to see that first big bubble)
CHLORINATION/PYUSH	
Don't like chlorine taste	Review with them the dosage they are using, and see if it could be reduced