

**Focus Group Discussions
on KAPP Study on
Drinking Water and
Water Purifying Tablets**

Final Report

**Submitted to:
Social Marketing Company
(SMC)**

**Submitted by:
Org-Quest Research Ltd.**



**Social Marketing Company (SMC)
SMC Tower,
33 Banani Commercial Area,
Dhaka-1213**

June 02, 2010

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SMC Tower, 33 Banani C/A,
Dhaka-1213, Bangladesh.

Submitted by:

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June 02, 2010

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Focus Group Discussions on KAPP Study on Drinking Water and Water Purifying Tablets

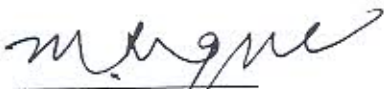
Dear Mr. Rahman,

Please find attached 11 copies of final report on the above. We hope you will find everything in order.

We take this opportunity to thank you for entrusting us with the assignment of carrying out such an important study.

Assuring you our full cooperation at all times.

Kind regards,



Monzurul Haque
Chairman & Managing Director



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EXECUTIVE SUMMARY

Social Marketing Company (SMC) is the largest privately managed social marketing organization in the world for a single country. SMC's mission is to improve the quality of lives of vulnerable and less privileged populations primarily in public health through sustainable social marketing efforts in collaboration with national and international governments and donors. The concept of social marketing came to Bangladesh in 1974 when the social marketing project was initiated to challenge rapid population growth through BCC/IEC program and by making contraceptive products widely accessible at a price affordable to the general people.

Water and sanitation systems are important indicators of overall health status in the community. Water is a major conduit for transmission of diseases including cholera, typhoid, hepatitis, poliomyelitis, dysentery etc. Several studies revealed that the children are more prone to diarrhoeal and other water born diseases. Globally diarrhoeal disease accounts for about 20% of child mortality and 80% of diarrhea can be prevented by improvements in water quality, sanitation and hygiene behaviors.

To address the issue relating safe drinking water, SMC plans to introduce a water purification tablet that will be convenient to use, effective and affordable to all socio economic segments of people of Bangladesh. Before launching the product, SMC wanted to conduct a KAPP study to get relevant information, which will be utilized, for developing its program strategies. To this end, SMC engaged Org – Quest Research Limited (OrQuest) to conduct a qualitative survey in all the divisions of Bangladesh and to carryout a research on the existing knowledge, attitude, perception and practice (KAPP) on drinking water and water purifying tablets vis a vis their sense of safety and preservation of safe drinking water.

The overall objectives of the study are to assess the current status of Knowledge, Attitude, Perception and Practice on drinking water and water purifying tablets of the people of Bangladesh. The following information was also covered by the study:

- Assessment of perception & knowledge level of people about safe drinking water
- Investigation of perception & knowledge about the relationship of safe drinking water and water borne diseases
- Investigation of knowledge and practice level of water purification tablets
- Knowing of behavior of the people on safe drinking water
- Determination of the intention to buy and intention to use water purification tablets;
- Assessment of the perceived advantage and disadvantage of the product
- Assessment of the willingness to pay for the product

During the study various aspects of drinking water, right from its method of collection, container used, preservation, drinking, possible sources of contamination and protective measures usually adopted etc. had been discussed with the participants of the group discussions. The more elaborate topics were:

- Source of water for different purposes,
- Source for drinking water - collection method, container, treatment, preservation, any concern with source, collection method, container, preservation, possible source of contamination, protective measures taken
- Meaning of safe drinking water
- Sources of safe drinking water
- How to get safe drinking water or how to make it safe for drinking
- What if drinking water is not safe
- Diseases that occur from unsafe drinking water
- Awareness of water purifying tablet
- Incidence of using water purifying tablet, source, experience, convenience/inconvenience
- Perceived advantages and disadvantages
- Intention to use, why/why not, regularly or occasions, what occasions/moments
- Willingness to buy, reasons
- Prices willing to pay

Since the basic objective is to have an in-depth understanding of Attitude, Perception and Practice (KAPP) on drinking water and water purifying tablets, and not to make any estimates qualitative technique through Focus Group Discussion (FGD) was used to conduct the study.

Since KAPP on drinking water and water purifying tablets (WPT) may vary by area, representation were ensured from:

- All the six divisions
- Both urban and rural areas
- All socio-economic classes

Since males, especially in the lower SEC, are purchase decision makers and buyers of this type of products and females are involved in usage of the product, both males and females were included in the study. Besides, due to possible variation between younger and older generations, both younger and older groups were taken separately.

Group discussions were carried out in Dhaka (Urban and Rural), Chittagong (Urban and Rural), Rajshahi (Urban and Rural), Khulna (Urban and Rural), Sylhet (Urban and Rural) and Barisal (Urban and Rural). Respondents consisted of male and female. In each area representation were ensures from different socio-economic categories like A, B, C, D. SEC categories were selected based on their education, occupation and disposable monthly family income.

Municipal supply (WASA) water in urban areas and tube well water in rural areas are almost the only source of water for all purposes. To urban people, municipal supply (WASA) water is another name for unsafe water, or even polluted water containing visible dirt and even worms. In contrast, tube well water is well trusted to be safe and free from such serious contamination. As such in rural areas, tube well water is generally not treated before drinking.

Drinking water is treated in urban areas by boiling municipal supply (WASA) water for about one to one and half hours and then cooling it. There is a tremendous faith in this time-trusted and proven process as an "adequate method" of treating water. The housewives, being personally involved in the entire boiling-cooling-preserving cycle also feel comfortable because they know that by drinking water which they themselves have boiled (or supervised), their children and the family are safe from sicknesses like *diarrhea*, *cholera*, *skin diseases*, *jaundice/hepatitis*, *stomach problems*, *vomiting*, etc., all of which are known to be caused by unsafe water.

The core activities in the boiling cycle are cleaning the containers in which water is obtained and stored through to collection of water, boiling for one to one and half hours and then cooling and then again back to cleaning the containers onwards before the running stock ends (please refer to illustration of the process in the main body of the report).

Treated water obtained from commercial sources in plastic containers, also known as mineral water, a relatively recent phenomenon in urban areas, is trusted to be safe and taken without any treatment. However, as a safety measure, water from the first five/six pumps are let go before collection to avoid water that might be contaminated with air borne pollutants. Additional safety is practiced by filtering the pumped water with a piece of cloth tied around the nozzle of the tube well.

Regardless of source, prevention of contamination of water begins in rural and urban households alike, immediately after it is collected and stored either on a *Kolshi* (traditional earthen water vase or pitcher) or on a pan or on any other containers. The *Kolshi* or the container is kept covered to prevent contamination from air borne dust within the household. The same practice holds for water stored on containers after boiling. Similarly top openings of underground and overhead water tanks/reservoirs are kept covered to prevent contamination from not only air borne dust but also from other possible contaminants. In rural areas prevention of contamination of tube well water before collection is practiced by keeping the top of the tube well covered with a rag to prevent air borne dust or other pollutants (e.g., bird dropping) from falling inside the tube well through the opening on the top,

Therefore, keeping stored water covered is a well-adopted practice of prevention of contamination whether in containers or in reservoirs.

Safe water is primarily judged by treatment process but also very importantly by physical properties. If water is boiled it is safe, but even after boiling if the water is not clear, if it is dirty, if it was not kept covered, or if it is smelly, then it is not safe.

Although it is recognized that boiling causes drainage of gas energy resource in urban areas, it is not seen as an expense. This is because of flat rate billing system regardless of volume of gas used. The housewives do however recognize that they have to put in a lot of time and efforts for boiling and cooling but they unfortunately fail to impute a value on their labour probably because housewives' efforts are taken for granted and traditionally not economically valued.

There is very little awareness about water purifying tablets (WPT) and even less knowledge about how to use it. For the few who are aware, WPT is a flood-time use product when safe drinking water is not available.

'AQUATAB'

A priori acceptability of Aquatab concept was marked with lack of sufficient enthusiasm towards the concept. Soon, acceptability became subject to apprehensions about whether it will have other adverse effects on water, for example, will it make the water smelly or will it negatively affect the taste of water?

Amongst urban people the main concern about Aquatab revolves around a fundamental question - can Aquatab really decontaminate water effectively? The latent question here is can Aquatab be as effective as boiling? Aquatab is positioning itself as a replacement of the boiling process, which enjoys time immemorial trust and proven performance at no additional perceived cost. Although the housewives clearly understand that the boiling process is a continuous drudgery for them, there is a deep rooted belief that the effectiveness of the boiling process is also ensured by the time and efforts they personally spend behind the process. They are not prepared to believe that Aquatab can be that simple solution to the elaborate boiling process which provides the essential safety of the entire family from sicknesses caused by impure water.

Amongst rural households who use tube well water, Aquatab or for that matter Water Purifying Tablets are not necessary because there is no need felt to purify tube well water. Therefore, the current practice since years is to drink it straight from tube well without any treatment.

Given the above a strong attitudinal resistance should be expected from the urban housewives who have since long learnt to trust boiling water as the only time tested proven method of treating drinking water. Resistance should likewise be expected from rural households because of their similar trust on tube well water which is taken without boiling or any other treatment. Therefore, to them water purifying tablets or Aquatab is unnecessary except possibly during flood.

A few other deterrents to acceptance of Aquatab or for that matter WPT could be the 24 hours time limit of using treated water. Although some feel that the 24 hours time limit is sufficient, others feel it isn't. The latter group places a condition that they will try Aquatab only if the time limit is increased. Another barrier to acceptance of Aquatab amongst the urban people is the feeling that Aquatab is only relevant for rural people.

As a result of all the above, there is a pronounced lack of true intention to use Aquatab no matter how positive an intention to purchase is expressed.

The suggested price of Taka 2.00 per tablet is not acceptable when the cost to the household is calculated in terms of monthly expenditure. Urban households with gas supply will have to allocate a cash budget for Aquatab if they are to replace boiling with Aquatab.

Better acceptability might be found at one-fourth to half the suggested price i.e., between Taka 0.50 to Taka 1.00. For less well to do households, another worry is the loss of money arising from throwing away unused remaining treated water after 24 hours time limit. For continuous use larger pack of 100 tablets @ Taka 0.50 per tablet i.e. Taka 50.00 per pack of 100 tablets may make sense.

There are respondents who said that they would use 'Aquatab' when they are out of house and traveling or they are on tour. They are surely looking for small size of an 'Aquatab' to cater their kind of use. Therefore, different sizes for different quantity water could be a good proposition.

CONCLUSIONS

When designing communication an extremely sensitive point to note is that the effectiveness of Aquatab should not be emphasized too much.

As 'Aquatab' is perceived to work on its germicide properties (it kills germs), a "strong and effective 'Aquatab' which can work as good as boiling" can also connote a highly negative effect on health via the poisonous properties of germicide on water entering into the body (side effects) resulting in strong rejection.

Therefore, debates might keep surfacing for some time about effectiveness and acceptability of WPT in urban households. A possible strategy would be to emphasize 'Aquatab' as "gentle but effective health protector".

Price needs to be considered in the light of the fact that any cost, no matter how little it might be, is an added budget item, especially for the less well to do households. However, a business case is also necessary.

Different size of tablet for different quantity of water and different packs like monthly, weekly, and travel packs so that the psychological effect of spending a higher amount at a time during a purchase is minimized.

1. BACKGROUND AND METHOD

1.1. OVERVIEW ON SMC

Social Marketing Company (SMC) is the largest privately managed social marketing organization in the world for a single country. SMC's mission is to improve the quality of lives of vulnerable and less privileged populations primarily in public health through sustainable social marketing efforts in collaboration with national and international governments and donors. The concept of social marketing came to Bangladesh in 1974 when the social marketing project was initiated to challenge rapid population growth through BCC/IEC program and by making contraceptive products widely accessible at a price affordable to the general people.

1.2. BACKGROUND OF THE STUDY

Water and sanitation systems are important indicators of overall health status in the community. Water is a major conduit for transmission of diseases including cholera, typhoid, hepatitis, poliomyelitis, dysentery etc.

According to the 2007 Demographic and Health Survey, the percentage of households with access to improved drinking water sources (piped water, public taps, tube or protected dug wells) is almost universal in both urban and rural areas, with overall coverage of above 97 percent. However, it should not be assumed that water from the improved sources is always free of contamination. For example, there have been numerous reports of contaminated piped water in Dhaka, especially during the monsoon. The programmatic concern is only one in every 15 households use appropriate treatment method to make their drinking water safe. The appropriate water treatment methods include boiling, bleaching, straining and filtering.

Overall, ten percent of children under five were reported to have had diarrhea in the two-week period before the 2007 DHS survey. The prevalence of diarrhea is highest at age 6-23 months, a period during which water, and solid foods are first introduced into the child's diet. The statistics shows that, in Bangladesh out of the three million children born each year, over 20,000 children dies from diarrhoea. Globally diarrhoeal disease accounts for about 20% of child mortality, and 80% of diarrhea can be prevented by improvements in water quality, sanitation and hygiene behaviors.

Regarding Millennium Development Goals (MDG), Bangladesh has committed that 100 percent urban and 97 percent rural population will have access to safe water by 2015 and ensure that 100 percent of urban and rural population will have access to improve sanitation by 2010. Achieving these targets under of MDG Goal 7 is challenge for the country and a wide range of community awareness and mobilization efforts are required as program intervention to achieve it.

To address the issue relating safe drinking water, SMC plans to introduce a water purification tablet that will be convenient to use, effective and affordable to all socio economic segments of people of Bangladesh. Before launching the product, SMC wants to conduct a KAPP study to get relevant information which will be utilized for developing its program strategies.

1.3. STUDY OBJECTIVES

The overall objectives of the study were to assess the current status of Knowledge, Attitude, Perception and Practice on drinking water and water purifying tablets of the people of Bangladesh. The following information areas were covered by the study:

- To assess perception & knowledge level of people about safe drinking water;
- To investigate perception & knowledge about the relationship of safe drinking water and water borne disease;
- To investigate knowledge and practice level of water purification tablets;
- To know the behavior of the people on safe drinking water;
- To determine the intention to buy and intention to use water purification tablets;
- To assess the perceived advantage and disadvantage of the product;
- To assess the willingness to pay for the product
- Source of water for different purposes, for drinking water - collection method, container, treatment, preservation, any concern with source, collection method, container, preservation, possible source of contamination, protection measures taken
- Meaning of safe drinking water
- Sources of safe drinking water
- How do you get safe drinking water or make it safe for drinking
- What if drinking water not safe
- Diseases that occur from unsafe drinking water
- Awareness of water purifying tablet
- Incidence of using water purifying tablet, source, experience, convenience / inconvenience
- Perceived advantages and disadvantages
- Intention to use, why/why not, regularly or occasions, what occasions/moments
- Willingness to buy, reasons
- Prices willing to pay

1.4. APPROACH AND METHOD

Study Technique: Qualitative technique through Focus Group Discussion (FGD) was used to conduct the study.

Coverage: All six divisions, both urban and rural areas, and all SEC.

Target respondents: Both male and female house head, younger and older.

1.5. SAMPLE SIZE AND DISTRIBUTION

In total there 36 groups were conducted; six per division. However, combination of male-female in urban and rural areas among young and old were as follows in total:

Group Composition

Division	Area Type	Group No.	Gender	SEC	Category
Dhaka	Urban	1	Female	C/D	Young
		2	Female	C/D	Old
		3	Male	A/B	Young
	Rural	4	Female	A/B	Young
		5	Female	C/D	Young
		6	Male	A/B	Old
Chittagong	Urban	7	Female	A/B	Young
		8	Female	A/B	Old
		9	Male	C/D	Young
	Rural	10	Female	C/D	Old
		11	Female	C/D	Old
		12	Male	A/B	Old
Rajshahi	Urban	13	Female	C/D	Young
		14	Male	A/B	Young
		15	Male	A/B	Old
	Rural	16	Female	C/D	Young
		17	Female	A/B	Young
		18	Male	C/D	Old
Khulna	Urban	19	Female	C/D	Young
		20	Female	A/B	Old
		21	Male	A/B	Old
	Rural	22	Female	A/B	Young
		23	Female	C/D	Old
		24	Male	C/D	Young
Sylhet	Urban	25	Female	A/B	Old
		26	Female	A/B	Young
		27	Male	C/D	Old
	Rural	28	Female	A/B	Old
		29	Male	A/B	Young
		30	Male	C/D	Young
Barisal	Urban	31	Female	A/B	Young
		32	Female	C/D	Old
		33	Male	C/D	Young
	Rural	34	Female	C/D	Old
		35	Female	A/B	Old
		36	Male	C/D	Old

1.6. FGD MODERATION AND GUIDE

All group discussions were conducted by senior OrQuest moderators, with the help of an agreed discussion guide. All group discussions were tape-recorded, and transcribed verbatim and the transcripts checked for accuracy by the executive.

2. DETAILED FINDINGS FROM THE GROUP DISCUSSIONS

2.1. SOURCES AND USES OF WATER

The same water regardless of source is used in both urban and rural areas for all household works, bathing, washing clothes and for all other general purposes.

In urban areas the main source of water is the municipal supply line.

In rural areas the principal sources of water are tube wells and deep tube wells.

In some rural areas of Dhaka, river water is used for bathing and washing clothes in summer months because the level of surface water falls below normal and not enough water can be pumped from the tube wells. Therefore people walk down to nearby river or canals and bathe and wash their clothes there.

2.1.1. DRINKING WATER -COLLECTION, PRESERVATION AND TREATMENT

2.1.1.a COLLECTION

Collection is not so much an issue in urban areas where municipal supply is available within the household. It is an issue for rural areas where people have to collect water from nearby tube well location and carry it home. In rural areas drinking water is generally collected by using *Kolshi*¹ (earthen water vase) or a bucket or a large jug.

2.1.1.b. PRESERVATION

Pans in urban areas and *Kolshi* in both urban and rural areas are used for preserving drinking water. In rural areas, *Kolshi* is also used for collecting water. Plastic containers are not so much in vogue although used. However, smaller quantity are transferred and preserved in jugs and water bottles, the latter is also kept in fridge in urban areas to be poured and drunk from there.



In rural areas drinking water is preserved mainly in *Kolshi* or earthen water vase.

2.1.1.c. TREATMENT

The treatment process is characterized by a series of activities from collection to preservation.

¹ "Kolshi" (also called "Kolosh") is a Bangla name of earthen clay vase made by traditional potters and burnt in indigenous kilns. It is used since ages to hold water for drinking in households. Being earthen ware it is porous and the bottom part is specially treated before biscuit firing stage after drying to prevent water from seeping through. However, being earthen ware also means that water kept in a *Kolshi* remains refreshingly cool.

In rural areas, from the time the water is collected from tube well, treatment process begins by covering the Kolshi or jug to prevent airborne dirt/dust contamination while carrying home and during preservation. If water is transferred to another container (generally a large pan) for preservation, then that container is also kept covered to prevent airborne dust contamination.

"We always keep the water for drinking covered no matter in which container we keep it."

Dhaka/rural/f/cd/y, Dhaka/rural/m/ab/o

In rural and urban households alike, the containers used for collection and preservation of drinking water is cleaned regularly/daily. Aside from hygiene, this activity is also seen as an essential step of keeping the drinking water decontaminated or free from contaminations that can gather in the containers.

"We clean the pan (in which drinking water is kept) every day to avoid any of those things (contamination)"

Dhaka/rural/f/ab/y

Whether practiced or not, it is universally known that boiling is "the method" for treating or purifying water. It is the most trusted method for all and the only method for those who practice.

"If boiled water is fully safe (to drink) ...there is no other way."

Dhaka/urban/m/ab/y

In rural areas, deep/tube well water is generally not boiled before drinking because tube well water is considered safe to drink without boiling.

"We do not do anything... tube well water can be taken straight without having to do anything..."

Dhaka/rural/f/ab/y

"We don't need to treat because we only use tube well water..."

"...tube well water is not contaminated, we feel it is safe to drink, we have been drinking it since long..."

Dhaka/rural/f/cd/y

"We have no concerns because our only source of water is the tube well..."

Dhaka/rural/m/ab/o

Filtered drinking water (also called mineral water), available in containers from commercial sources, was reported to be used by a few participants in a few groups. These participants do not feel any need for treating the filtered water.



"...jar (filtered) water need not be treated/boiled..."

Dhaka/urban/m/ab/y

In urban areas municipal supply water is almost universally treated before drinking by boiling and cooling to make it suitable for drinking.

"...that way (after describing the process of boiling) I am not worried any more because I know that it (boiled water) is safe to drink..."
Dhaka/urban/f/cd/y, Dhaka/rural/m/ab/o

"We boil WASA water and cool same and after sieving the water we drink."
Chittagong/urban/f/ab/y

"We collect WASA water, boil same and put alum in to it. After 5 to 6 hours we sieve the water and drink the upper layer of and water at the bottom of the container is thrown away..."
Chittagong/urban/f/ab/o

"I don't boil water...just put alum in to the water and after 4 to 5 hours drink same..."
Chittagong/urban/f/ab/o

"First I put some alum in to WASA water. After settling of dirt at the bottom of the container I move the water from top layer to another container and boil same. After cooling the water is ready for drinking..."
Chittagong/urban/m/cd/y

"...sometime we use water purifying tablet for tube well water and drink same..."
Chittagong/rural/f/cd/o

"...we don't purify tube well water as we know it is safe to drink..."
Chittagong/rural/m/ab/o, Chittagong/rural/f/cd/o, Rajshahi/urban/f/cd/y, Rajshahi/rural/m/cd/o, khulna/urban/f/cd/y, khulna/urban/m/ab/o

".....Since it is tube well, it is tested that there is no germ or contamination in tube well water. Therefore, don't boil this Water..."
Chittagong/rural/f/cd/o, Rajshahi/urban/m/ab/y

"...bring tube well water and put it in filter and from there drink same..."
Chittagong/rural/f/cd/o

"....after boiling tube well water is put in 'Kolosh' and after cooling drink same..."
Rajshahi/urban/f/cd/y

"...tube well water is boiled, cooled, filtered and then drunk..."
Rajshahi/urban/f/cd/y

"...tube well water is boiled, cooled, filtered and then drunk...as chances of jaundice remain there..."
Rajshahi/urban/m/ab/y

"...tube well water is boiled, cooled and used as drinking water..."
Rajshahi/urban/m/ab/o

"...we collect water from WASA supply and filter same....we use this as drinking water..."
Rajshahi/urban/m/ab/o

"...Tube well water is arsenic free and pure, therefore, do not treat same...."
Rajshahi/rural/f/cd/y[all], Rajshahi/rural/f/ab/y [all], khulna/rural/f/ab/y [all]

"...put tube well water in filter and then drink same..."
khulna/urban/f/cd/y

"...do not treat water. These tube wells are marked green and do not contain arsenic and water is safe..."
khulna/urban/f/ab/o

"....We are drinking deep tube well water after filtering..."
khulna/urban/f/ab/o

2.2. CONCERNS ABOUT TREATED WATER

Concerns remain despite treatment. There is always some apprehension and never adequate comfort is there about municipal supply water amongst urban people.

"...we can't feel fully confident even after doing all the best (boiling, cooling, bottling)...we are never really sure whether it is really free from contamination after doing all the best we can"
Dhaka/urban/f/cd/y

"It is a problem that we cannot keep boiled water for more than two days... after two days it becomes stinky/smelly"
Dhaka/urban/f/cd/o

"Nobody knows the actual source of WASA water and it can't be said beyond doubt about purity of this water."
Chittagong/urban/f/ab/y

"When we came to Chittagong town we drank supply water and all of us became sick....."
Chittagong/urban/f/ab/o

"...There are bad smell in WASA water..."
Chittagong/urban/m/cd/y

It is revealed from the discussions that even after boiling the users could not be tension-free about safety of drinking water.

"...if water has arsenic contamination then boiling will also not help..."
Chittagong/urban/m/cd/y

"...if water is boiled then 80% purity is attained and rest 20% impurity still remains..."
Chittagong/urban/m/cd/y

"...since the water remains carefully covered from collection till drinking, don't have any concern..."
Chittagong/rural/f/cd/o

"...do not have concern as collected tube well water is kept fully covered, free from dirt or dust...."
Chittagong/rural/m/ab/o...

2.3. SOURCES OF CONTAMINATION

In rural areas, the tube well users do not see any major sources of contamination of tube well water. The following phenomena were mentioned after probing:

"...contamination can take place through the top and water nozzle of tube well because it is in open air..."

Dhaka/rural/f/cd/y, Dhaka/rural/m/ab/o

"..water of tube well located close to bathrooms or garbage areas can smell bad..."

Dhaka/rural/f/cd/y

"...you know, bird dropping, insecticide, and then this leaking pipe... also not having any cover (on tube well head)... dust in the air...all these things (can contaminate tube well)"

Dhaka/rural/f/ab/y

"We do not have any knowledge about how the water can be contaminated..."

Chittagong/urban/f/ab/y

"....the children can contaminate the water if they drop some foreign matter in to it[although unintentionally]..."

Rajshahi/urban/f/cd/y, Rajshahi/urban/m/ab/y, Rajshahi/rural/m/cd/o

"....Dustbin and drains are there beside the tube well and flies and mosquitoes sit on the mouth of the tube well and can effectively contaminate tube well water..."

Rajshahi/urban/m/ab/y

"....since tube well top remains opened, excrete of birds, crow etc, can fall in to water and can contaminate same..."

Rajshahi/urban/m/ab/y

".....if chickens or birds dip their beaks in to water then same becomes impure....should take actions to prevent such situation..."

"Rajshahi/rural/f/cd/y

"... Human hair, leaves of trees, dust and dirt can contaminate water..."

Rajshahi/rural/f/cd/y

"....keep lid on container's mouth but still there may be germs falling on the water...can't remain fully tension free ..."

Rajshahi/rural/f/ab/y

"...if dirt and dust falls in to 'Kolosh' then water becomes impure..."

khulna/urban/f/cd/y

"..Deep tube wells were planted 10 years back and the pipes underneath could have leakage and contamination can come through same in water..."

khulna/urban/m/ab/o

In urban areas municipal supply water itself is not considered safe. Therefore, all piped municipal supply water is considered already contaminated.

"supply water can contain human excreta..."
Dhaka/urban/f/cd/y

"when sewerage and water supply pipes go side by side and there are leakages underground....you... it is a constant concern..."
Dhaka/urban/f/cd/o, Dhaka/urban/m/ab/y

"pipe water contains small little-little worms"
Dhaka/urban/f/cd/o (almost all respondents).

"...mosquito or fly can sit on the mouth/ water if the container is kept opened..."
Rajshahi/urban/m/ab/o

In addition, contamination caused by not cleaning underground/overhead regularly, and by air dusts if tanks are not kept properly covered, was mentioned quite strongly by urban group participants.

Water container kept uncovered or not washed regularly is also considered a source of contamination.

2.4. PREVENTION OF CONTAMINATION OF WATER

In a situation where the municipal supply water is already contaminated from source, the urban group participants were at a loss about how to prevent contamination of water. Therefore they simply kept on repeating what they do to treat water (boiling water, washing/cleaning container, keeping container covered, etc.).

Rural group participants were more specific. They keep the tube well head covered with a rag and sieve the water by tying a piece of cloth around the nozzle to filter the water. They also let the water from first five to six pumps go before using.

"...we cannot do anything to prevent contamination, so we let the water from the first 5/6 pumps go..."
"...we put a cloth around the nozzle to filter the water..."
Dhaka/rural/n/ab/o

"...we just keep the tube well covered with a rag..."
Dhaka/rural/f/cd/y

"We tie/cover the mouth of tap by thin cloth and draw WASA water by sieving....."
Chittagong/urban/f/ab/y

"We fill 'kolosh' with water and put alum in it and drink water after half an hour after the settling..."
Chittagong/urban/f/ab/y

"We give water to filter direct from the tap....."
Chittagong/urban/f/ab/y

"First of all I boil WASA water, then pour it in to 'Kolosh' and then put some alum in to it and with a piece of cloth tie the mouth of 'Kolosh'....."

Chittagong/urban/f/ab/o

".....plastic containers are cleaned regularly to keep same safe for storing drinking water...."

Chittagong/urban/m/cd/y

"....keep the stored water by putting a lid on it so that external dust/ dirt do not fall in to the water...."

Chittagong/urban/m/cd/y, Khulna/rural/f/ab/y

"..to keep the water clean and germ free I keep the containers mouth tied with piece of cloth..."

Chittagong/rural/f/cd/o, Khulna/urban/m/ab/o, Khulna/rural/f/ab/y

"...from collection of water till drinking, keep water in clean container and mouth covered. Therefore, have no tension about the purity.."

Chittagong/rural/f/cd/o, Rajshahi/urban/m/ab/y, Rajshahi/rural/f/cd/y, Rajshahi/rural/f/ab/y

"...just keep the water covered and at an elevated place so that it remains safe and pure..."

Chittagong/rural/m/ab/o, Rajshahi/urban/m/ab/y

"....to keep water out of children's reach, keep water on a raised place and cover the mouth of container with cloth or lid..."

Rajshahi/urban/f/cd/y, Rajshahi/urban/m/ab/o

"..keep the tube well head covered with piece of cloth.....also keep the surrounding places of the tube well clean so that dampness doesn't develop...."

Rajshahi/rural/m/cd/o

"...filtering of tube well water gives confidence and sense of safety for drinking water..."

Khulna/urban/f/cd/y

"...collect water from tube well and keep water on a stool by covering mouth of container...."

Khulna/urban/f/cd/y

2.5. PERCEPTIONS OF SAFE/UNSAFE WATER

Safe water perception varies. However, boiled water and tube well water are the two most common form of safe water. Others include clean/clear water, arsenic free water, covered water, water without smell, germ free water, treated water with tablet, iron free water, bottled water, etc. as can be seen below:

- Boiled water (Dhaka/urban/f/cd/o, Dhaka/urban/m/ab/y, Dhaka/rural/f/ab/y, Dhaka/rural/m/ab/o, Chittagong/urban/f/ab/o, Rajshahi/urban/f/cd/y);
- Clean/clear water (Dhaka/rural/f/ab/y, Dhaka/rural/f/cd/y)

- Water that does not contain arsenic (Dhaka/rural/f/ab/y, Dhaka/rural/f/cd/y, Rajshahi/urban/m/ab/y, Khulna/urban/f/cd/y, Khulna/urban/f/ab/o, Khulna/rural/f/ab/y);
- Covered water (Dhaka/rural/m/ab/o);
- Water that does not smell (Dhaka/urban/f/cd/y);
- Water that does not have germs (Dhaka/rural/m/ab/o, Chittagong/urban/f/ab/y, Chittagong/urban/m/cd/y, Rajshahi/urban/f/cd/y, Khulna/urban/m/ab/o);
- Water treated with purifying tablets (Dhaka/rural/m/ab/o).
- Water available in shops (bottled water) –(Chittagong/urban/f/ab/y)
- Deep tube well water is safe water (Chittagong/urban/f/ab/y, Chittagong/urban/f/ab/o, Chittagong/rural/m/ab/o)
- Tube well water (Chittagong/rural/f/cd/o, Chittagong/rural/f/cd/y, Chittagong/rural/m/ab/o, Rajshahi/urban/f/cd/y, Rajshahi/rural/f/cd/y, Rajshahi/rural/f/ab/y, Rajshahi/rural/m/cd/o, Khulna/urban/f/ab/o, Khulna/rural/f/ab/y)
- Rain Water (Chittagong/rural/f/cd/o, Rajshahi/rural/f/ab/y)
- Germ free and clear water is safe (Rajshahi/urban/m/ab/y, Rajshahi/urban/m/ab/o, Khulna/urban/f/cd/y)
- Iron free water (Rajshahi/urban/m/ab/y)
- Bottled drinking water available in the market (Rajshahi/urban/m/ab/o)

"...safe water is tube well water...anytime"
Dhaka/rural/m/ab/o

"...any water that does not have germs ... that does not make us sick after drinking, is safe..."
Dhaka/urban/f/cd/y, Chittagong/urban/m/cd/y

"I believe water has three qualities; first, the color (whether it is clear); second, the taste (whether it is satisfying/refreshing); and third, smell (whether it is odorless). If all three are okay, then we can boil the water, cool it and drink it."
Dhaka/rural/m/ab/o

The following are considered unsafe water:

- Supply (municipal) water (Dhaka/urban/f/cd/y, Dhaka/urban/f/cd/o, Dhaka/urban/m/ab/y, Khulna/urban/f/ab/o)
- Dirty water (Dhaka/urban/f/cd/o, Dhaka/rural/f/ab/y, Dhaka/rural/f/cd/y);
- Water kept for too long (Dhaka/rural/m/ab/o);
- Water that causes sickness;

- River water (Dhaka/rural/f/ab/y, Chittagong/rural/f/cd/o, Rajshahi/rural/f/cd/y, Rajshahi/rural/f/ab/y, Rajshahi/rural/m/cd/o)
- Contaminated with germ, dirt, sand etc. (Chittagong/urban/f/ab/y, Rajshahi/urban/f/cd/y, Rajshahi/urban/m/ab/o)
- WASA water, if drunk directly (Chittagong/urban/f/ab/y)
- Water containing iron (Chittagong/urban/f/ab/o)
- Pond and canal water (Chittagong/urban/f/ab/o, Chittagong/urban/m/cd/y, Chittagong/rural/f/cd/o, Chittagong/rural/f/cd/o, Chittagong/rural/m/ab/o, Rajshahi/rural/f/cd/y, Rajshahi/rural/f/ab/y, Rajshahi/rural/m/cd/o, Khulna/urban/m/ab/o, Khulna/rural/f/ab/y)
- Hotel Water (Chittagong/urban/m/cd/y)
- Water from well (Chittagong/rural/f/cd/o, Khulna/urban/f/ab/o)
- Water contaminated with arsenic (Rajshahi/urban/f/cd/y)
- Unclear water (Rajshahi/urban/m/ab/y)
- Water containing arsenic and iron is unsafe (Rajshahi/urban/m/ab/y, Khulna/rural/f/ab/y)
- Contaminated with germs and arsenic and iron (Khulna/urban/f/cd/y)

"...supply (municipal) water is unsafe water... anytime"
Dhaka/urban/f/cd/y, Dhaka/urban/m/ab/y

"...water of Buriganga (river) is unsafe, and that comes with supply (municipal) water"
Dhaka/urban/f/cd/y

"When we take food in any hotel then the dirt and foreign particles move inside the bottle/ glass. This shows that the water is not pure...."
Chittagong/urban/m/cd/y

2.6. POSSIBLE SICKNESSES CAUSED BY UNSAFE/ UNTREATED/ IMPURE WATER

Diarrhea, dysentery, cholera, jaundice (hepatitis) and stomach pain are seen almost universally across as sicknesses that might be caused by unsafe/untreated water. Other possible sicknesses include:

- Skin diseases (Dhaka/rural/f/ab/y, Dhaka/rural/f/cd/y, Dhaka/rural/m/ab/o, Chittagong/urban/f/ab/y, Chittagong/urban/m/cd/y, Rajshahi/urban/m/ab/o, Rajshahi/rural/f/ab/y, Rajshahi/rural/m/cd/o, Khulna/urban/f/cd/y, Khulna/urban/f/ab/o)
- Pimples on face (Dhaka/urban/f/cd/y);
- Hair loss/ Hair fall (Dhaka/urban/f/cd/y, Rajshahi/urban/f/cd/y, Khulna/urban/f/cd/y);

- Typhoid (Dhaka/rural/m/ab/o, Chittagong/urban/f/ab/y, Rajshahi/urban/m/ab/y, Rajshahi/urban/m/ab/o, Rajshahi/rural/f/cd/y, Khulna/urban/f/ab/o)
- Vomiting (Dhaka/rural/f/cd/y, Chittagong/rural/f/cd/o)
- Diarrhea (Chittagong/urban/f/ab/y, Chittagong/urban/f/ab/o, Chittagong/rural/f/cd/o, Chittagong/rural/f/cd/o, Chittagong/rural/m/ab/o, Rajshahi/urban/f/cd/y, Rajshahi/urban/m/ab/y, Rajshahi/urban/m/ab/o, Rajshahi/rural/f/cd/y, Rajshahi/rural/f/ab/y, Rajshahi/rural/m/cd/o, Khulna/urban/f/cd/y, Khulna/urban/f/ab/o, Khulna/urban/m/ab/o, Khulna/rural/f/ab/y)
- Jaundice (Chittagong/urban/f/ab/y, Chittagong/urban/m/cd/y, Chittagong/rural/f/cd/o, Chittagong/rural/m/ab/o, Rajshahi/urban/f/cd/y, Rajshahi/urban/m/ab/y, Rajshahi/urban/m/ab/o, Rajshahi/rural/f/cd/y, Rajshahi/rural/f/ab/y, Rajshahi/rural/m/cd/o, Khulna/urban/f/ab/o)
- Cholera (Chittagong/urban/f/ab/y, Chittagong/urban/m/cd/y, Chittagong/rural/f/cd/o, Rajshahi/urban/f/cd/y, Rajshahi/urban/m/ab/y, Rajshahi/urban/m/ab/o, Rajshahi/rural/f/cd/y, Rajshahi/rural/f/ab/y)
- Dysentery (Chittagong/urban/f/ab/y, Chittagong/urban/m/cd/y, Chittagong/rural/f/cd/o, Chittagong/rural/f/cd/o, Chittagong/rural/m/ab/o, Rajshahi/urban/m/ab/y, Rajshahi/urban/m/ab/o, Rajshahi/rural/f/cd/y, Rajshahi/rural/f/ab/y, Rajshahi/rural/m/cd/o, Khulna/urban/f/cd/y, Khulna/urban/f/ab/o, Khulna/urban/m/ab/o)
- Allergy (Chittagong/urban/f/ab/y, Chittagong/urban/f/ab/o, Rajshahi/urban/f/cd/y, Rajshahi/rural/m/cd/o, Khulna/urban/f/cd/y)
- Arsenic disease (Chittagong/urban/f/ab/o, Khulna/urban/m/ab/o, Khulna/rural/f/ab/y)
- Cold and cough (Chittagong/rural/f/cd/o, Chittagong/rural/f/cd/o, Chittagong/rural/m/ab/o, Rajshahi/rural/m/cd/o)
- Fever (Chittagong/rural/f/cd/o, Chittagong/rural/m/ab/o)
- Rash on body (Chittagong/rural/f/cd/o)
- Kidney Disease (Rajshahi/urban/m/ab/o, Khulna/urban/f/cd/y, Khulna/urban/f/ab/o)
- Gall Bladder Stone (Rajshahi/urban/m/ab/o)
- Malaria (Rajshahi/rural/f/cd/y)
- Diabetes (Rajshahi/rural/f/ab/y)
- Worm (Khulna/urban/f/cd/y)

"Any water that causes stomach problem, diarrhea is unsafe..."
Dhaka/rural/f/ab/y

2.7. CURRENT PRACTICES OF TREATMENT OF DRINKING WATER

As mentioned earlier, rural group participants drink water straight from tube well without any treatment because they consider tube well water safe for drinking. Likewise handful few urban group participants who drink filtered/mineral water in jars from commercial sources consider it safe to drink without any further treatment.

Very few rural group members mentioned *sporadic use* of water purifying tablet, mostly used during flood when provided free from the Government.

The urban group participants almost unanimously mentioned boiling as the only way of treating drinking water.

Another method mentioned by a few urban group respondents (Dhaka/urban/f/cd/o and Dhaka/rural/f/ab/y) is the use of alum to kill germs in water.

"We treat drinking water by using filter...."

Chittagong/urban/f/ab/y, Rajshahi/urban/m/ab/o

"We use alum to purify water....."

Chittagong/urban/f/ab/y, Chittagong/urban/f/ab/o, Chittagong/rural/f/cd/o,

"We drink WASA water after boiling same..."

Chittagong/urban/f/ab/o, Chittagong/rural/f/cd/o,

"We drink deep tube well water after boiling same...."

Chittagong/urban/f/ab/o

"....after boiling water the same is sieved before use..."

Chittagong/urban/m/cd/y

"...some time use water purifying tablet...."

Chittagong/rural/f/cd/o

"...purify/ treat water by boiling...."

Rajshahi/urban/f/cd/y

"....after boiling cool the water and put same in filter before drinking"

Rajshahi/urban/f/cd/y

"...for the children water is boiled and cooled, because their body resistance power is less..."

Rajshahi/urban/m/ab/y

"....after boiling cool the water and use it for drinking"

Rajshahi/urban/m/ab/o

"...filtering of tube well water gives confidence and sense of safety for drinking water..."

Khulna/urban/f/cd/y, Khulna/urban/f/ab/o

2.8. ATTITUDE TOWARDS BOILED WATER

There are two opposing opinions about how effective is boiling for treating water.

One group feels that even after boiling water sufficiently there is always some apprehension about whether all the activities in the boiling cycle is adequate. Some participant told that if water is arsenic contaminated, then boiling even will not help. There is never a full comfort zone as is evident from the following quotes:

"...we feel as if not enough has been done ... we are not confident whether it (the water) is free from contamination even after doing all the best we can (the boiling cycle)"
Dhaka/urban/f/cd/y, Dhaka/urban/m/ab/y

"...even after boiling, water become unsafe because of air dust, cockroach, etc....if not kept covered"
Dhaka/urban/f/cd/o, Dhaka/rural/m/ab/o

"...if water has arsenic contamination then boiling will also not help..."
Chittagong/urban/m/cd/y, Rajshahi/urban/m/ab/y, Khulna/urban/f/ab/o

"...if water is boiled then 80% purity is attained and rest 20% impurity still remains..."
Chittagong/urban/m/cd/y, Rajshahi/urban/m/ab/o

"...merely boiling does not purify water. Alum is required to be used addition to boiling to purify water..."
Khulna/urban/m/ab/o

The other group feels that boiling is adequate. Some even told that whatever is done, like use of alum or water purifying tablet, boiling needs to be done and a must for safe drinking water.

"...if boiled, water is fully safe..."
Dhaka/urban/f/cd/y, Dhaka/urban/f/cd/o, Dhaka/urban/m/ab/y, Dhaka/rural/m/ab/o

"there is no other way"
DHAKA/RURAL/F/CD/Y

"If the water tastes refreshing after boiling, I know it is safe..."
"Scientists have said that boiling makes water pure"
Dhaka/urban/f/cd/y

"I don't know whether after boiling the water becomes pure..."
Chittagong/urban/f/ab/y

"I don't feel that water becomes safe after boiling..."
Chittagong/urban/f/ab/y

"Yes, I consider boiling essential....this is to avoid water borne diseases..."
Chittagong/urban/f/ab/o

“...there is no alternative to boiling water...”

Chittagong/urban/m/cd/y

“...whatever we do...give alum in water or use water purifying tablet.....boiling needs to be done anyway.....”

Chittagong/urban/m/cd/y

“.....Since it is tube well, it is tested that there is no germ or contamination in tube well water. Therefore, don't boil this Water...”

Chittagong/rural/f/cd/o, Rajshahi/urban/m/ab/y

“.....to make water germ free it is boiled...”

Rajshahi/urban/f/cd/y,

“.....even boiled and purified water is used for cooking.....”

Rajshahi/urban/f/cd/y

“...if water is boiled then 95% purity is attained and rest 5% impurity still remains...”

Rajshahi/urban/m/ab/o

“...if water is boiled then there is no chance of any disease....”

Rajshahi/rural/f/cd/y

“...Have seen in TV that boiled water is safe fro drinking...”

Rajshahi/rural/f/ab/y

“...If water is boiled then it becomes germ / bacteria free...”

Khulna/urban/f/cd/y

“..the best way to purify drinking water is to boil it..”

Khulna/urban/f/ab/o

“...pond water and rain water do not become pure even after boiling..”

Khulna/rural/f/ab/y

2.9. THE BOILING CYCLE

Boiling is “the method” for treatment of drinking water amongst all urban group participants. First the water preservation pan is cleaned and water is collected on it. Then, the water is boiled for one to one and half hour. After cooling the boiled water, it is sieved or filtered and then part of it is kept in bottles and jugs. The bottles are then kept in fridge. Within this whole span of activities the most common activities for all the groups are “boiling and cooling”.

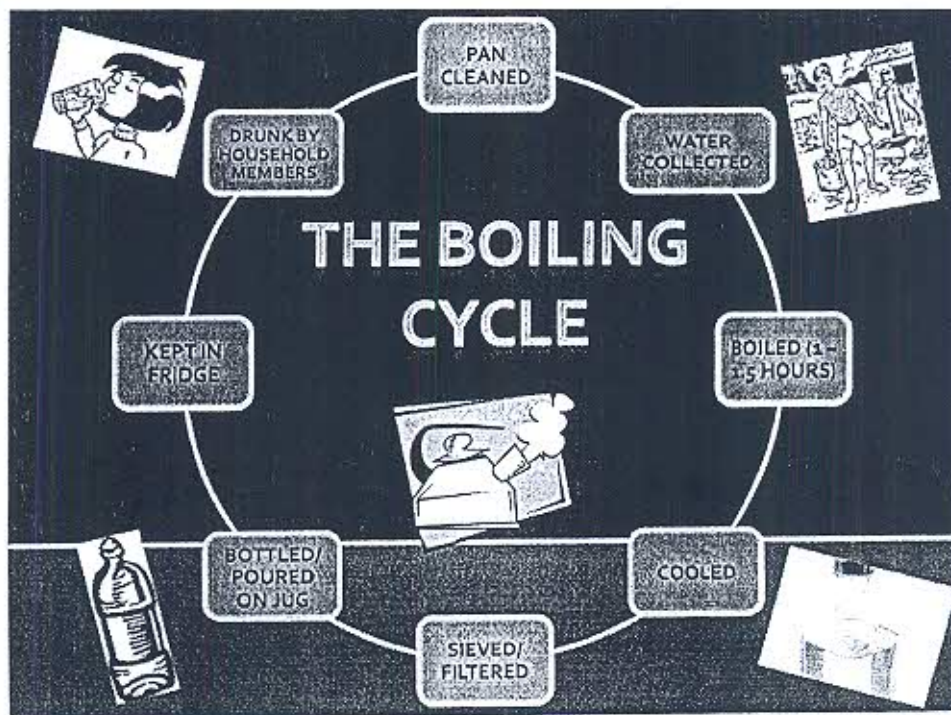
The boiling process is characterized by a number of considerations. Boiling is usually done for a longer time if the water lathers up more than usual during boiling which is considered a sign of impurity. Likewise smelly water is boiled for a longer time to make the smell go away.

"...if we see more than usual lather while boiling (water) we know that this water is not pure, so it has to be boiled for a longer time..."
Dhaka/urban/f/cd/y

"...if it (water) has a bad smell, we boil it for at least one hour to make the smell go away..."
Dhaka/urban/f/cd/y, Dhaka/urban/m/ab/y

"Water needs to be sieved and then boiled and alum should be given in water to make it safe..."
Chittagong/urban/f/ab/y

"When WASA water becomes available I collect same, then boil the water and put alum in to it..."
Chittagong/urban/f/ab/o



2.10. DURATION OF BOILING

Adequate boiling is considered to be anything from 30 minutes to 90 minutes. Generally, more the water is considered impure the longer it is boiled.

"...whole process (boiling and cooling) takes about one hour..."

"...keep boiling until the level falls by one fold of the finger..."
Dhaka/urban/m/ab/y

"...between one to one and half hours"
Dhaka/rural/f/ab/y

"Water should be boiled for 30 minutes to make it safe for drinking..."
Chittagong/urban/f/ab/y, Chittagong/urban/f/ab/o, Chittagong/rural/f/cd/o,

"If water is boiled for 15 to 20 minutes in clean container then it becomes safe for drinking"
Chittagong/urban/f/ab/y

"According to doctors' opinion water needs to be boiled for 20 minutes. So I boil water for 20 minutes..."
Chittagong/urban/f/ab/o

"...according to experts, water need to be boiled for 25 to 30 minutes to make it safe for drinking..."
Rajshahi/urban/m/ab/o

2.11. REASONS FOR BOILING

Of course, the primary reason for boiling water is to treat it and make it suitable for drinking. However, specific advantages of boiling water include the following:

- To avoid being sick; to save children from becoming sick (Dhaka/urban/f/cd/y)
- To kill germs/ bacteria (Rajshahi/urban/f/cd/y)
- To purify water; (Chittagong/urban/f/ab/y)
- To remove smell (Dhaka/urban/f/cd/o)

"...lots of dust falls on water... not suitable for drinking ... water smells ...after boiling there are no germs..."

"to purify water... to save children from becoming sick from germs in water... as it is they suffer from diarrhea"
Dhaka/urban/f/cd/y, Dhaka/rural/f/cd/y, Dhaka/rural/m/ab/o

"...boiling removes/kills germs"
Dhaka/urban/f/cd/y, Dhaka/urban/f/cd/o, Dhaka/rural/f/ab/y

"...doctors advise us to boil water"

Dhaka/urban/f/cd/y

"There is lot of water born disease, so I first boil the water then drink same..."

Chittagong/urban/f/ab/o, Rajshahi/urban/m/ab/o

"I boil water to purify same...."

Chittagong/urban/f/ab/o

"...By boiling water becomes fully safe.."

Rajshahi/urban/f/cd/y

"...after boiling the water becomes fully safe for drinking..."

Rajshahi/urban/m/ab/o

"...experts say that boiling water makes it safe for drinking..."

Rajshahi/urban/m/ab/o

2.12. ADVANTAGES OF BOILING

The biggest advantage of boiling is that it serves to purify water by killing germs thereby making it safe to drink at no extra cost. The fact that the whole process is done by the housewives themselves, they feel confident.

"...because we are doing it ourselves we feel more confident. That is the biggest advantage."

Dhaka/urban/m/ab/y

"even though it is a lot of effort, still it has a lot of advantages, we protect ourselves from germs beforehand..."

Dhaka/urban/f/cd/y, Dhaka/urban/f/cd/o, Dhaka/rural/f/ab/y, Dhaka/rural/f/cd/y

"...the water become safe to drink..."

Dhaka/urban/f/cd/y, Dhaka/urban/f/cd/o, Dhaka/rural/f/ab/y

"there is no extra cost involved, gas bill is fixed anyway"

Dhaka/urban/f/cd/y, Dhaka/rural/f/ab/y

"By boiling water the dirt and contamination settle down and there is no risk...."

Chittagong/urban/f/ab/y,

"Process is easy...just put 'Kolosh' or 'pan' on the oven...."

Chittagong/urban/f/ab/o

"Gets satisfaction that I am drinking pure water and am safe from disease..."

Chittagong/urban/f/ab/o

"...water becomes germ free..."

Chittagong/urban/m/cd/y, Khulna/urban/m/ab/o

"....easy to purify by boiling.....just fill in the pot and boil...."

Chittagong/urban/m/cd/y

"...if water is boiled then the impurities/ dirt settles at the bottom of the container...."
Chittagong/rural/f/cd/o

"...after cooking is completed just give water for boiling....no problem"
Chittagong/rural/f/cd/o

"....by boiling safe water can be drunk..."
Rajshahi/urban/f/cd/y

"....There will be no water borne disease..."
Rajshahi/urban/m/ab/o, Khulna/rural/f/ab/y

*"...any time boiling of water can be done...just have to put container full of water on the
oven..."*
Rajshahi/rural/m/cd/o

"....By boiling safe water is available for drinking..."
Khulna/urban/f/cd/y

"...there will be no stomach disease if water is boiled...."
Khulna/urban/f/cd/y

2.13. DISADVANTAGES OF BOILING

The entire repetitive boiling cycle is seen as drudgery for the housewives because of the inconvenience due to time and efforts needed. The need to keep water boiling very frequently to ensure constant supply of safe drinking water is an added continuous tension.

"Lot of inconvenience takes a lot of time..."
Dhaka/urban/f/cd/y, Dhaka/urban/m/ab/y, Dhaka/rural/m/ab/o

"...if only there was an easier way, we would go for it..."
Dhaka/urban/m/ab/y

*"...always have to keep an eye on how much is left... I have to start boiling again before it
ends..."*

"...sometimes I have a serious shortage if guests arrive..."
Dhaka/urban/f/cd/y, Dhaka/urban/f/cd/o

*"...the problem is, it (boiled water) cannot be kept for more than 24 hours, it becomes
smelly..."*
Dhaka/urban/f/cd/y, Dhaka/urban/m/ab/y

*"IF I put down the container of boiled water down, then the children may touch same and
can get their fingers/ hands burnt..."*
Chittagong/urban/f/ab/y, Chittagong/urban/f/ab/o

"Many time it is seen that we fall asleep a while the water is boiling. This can cause big accident...."

Chittagong/urban/f/ab/y,

"Container of water is very heavy and inconvenient to handle/ lift..."

Chittagong/urban/f/ab/o

"If water is boiled it doesn't become cool even in the afternoon ...Takes long time to cool down..."

Chittagong/urban/f/ab/o

"...Boiling is risky and time consuming..."

Chittagong/urban/m/cd/y

"...if water is boiled then someone needs to wait beside the oven for about half an hour..."

Chittagong/rural/f/cd/o

"...misuse of gas [cylinder gas], fatigue, spoiling of container, cost involved for buying woods...all is for boiling water [disadvantage]..."

Rajshahi/urban/f/cd/y

"...boiling costs time and money....lot of hassle...."

Rajshahi/urban/m/ab/o

"..if water is boiled then its taste deteriorated/ is changed.."

Rajshahi/rural/f/ab/y, Khulna/urban/f/ab/o

"...boiling water is time consuming..."

Rajshahi/rural/m/cd/o, Khulna/rural/f/ab/y

"...disadvantages of boiling water are fatigue, spot marks on containers, cost of boiling is high, risks involved from spilling of hot water..."

Khulna/urban/f/cd/y

2.14. CHANCES OF BOILED WATER BECOMING CONTAMINATED

Generally it is considered that boiled water is safe and there's little possibility of boiled water becoming contaminated again unless it is felt that the process had not been adequately performed or not enough safety practices have been followed in preserving boiled water.

"... if I see my child becoming sick even after drinking boiled water, I feel may be the water has not been properly boiled..."

Dhaka/urban/f/cd/y

"...if boiled water is not kept properly covered, then it can easily become contaminated from dirt in the air"

Dhaka/urban/f/cd/o, Dhaka/rural/f/cd/y, Chittagong/urban/f/ab/y, Chittagong/urban/f/ab/o

"...unless we keep the container cleaned every day, even boiled water kept in it would become contaminated..."

Dhaka/urban/f/cd/y, Dhaka/urban/m/ab/y

2.15. COST OF PURIFYING WATER

As far as boiling is concerned, there are no extra out-of-pocket expense involved. As the only direct cost item is gas, it does not require any additional payment because the gas bill is fixed per month regardless of volume used. Nonetheless the fact that it is draining national resources is also recognized by a few. The cost of boiling for those who don't have gas supply is a concern.

Although no cost figure is tagged, the fact that there's quite a bit of extra efforts involved is well recognized.

"no expense really, just a little extra gas and extra effort for us, it is the same bill for any amount used..."

Dhaka/urban/f/cd/y, Dhaka/urban/f/cd/o, Dhaka/urban/m/ab/y, Dhaka/rural/f/ab/y, Chittagong/urban/f/ab/y

"it is expensive for people who don't have gas..."

Dhaka/rural/m/ab/o

"...even though we do not have to pay any additional gas bill, it is wastage of the country's gas resources..."

Dhaka/urban/f/cd/o

"I spend a little amount for boiling water as I use wood..."

Chittagong/urban/f/ab/o

"Nominal expense as I use alum..."

Chittagong/urban/f/ab/o

".....every month around Taka.200 is necessary to boil water...."

Chittagong/rural/f/cd/o

".....Taka 100 is required/ spent for boiling water each month..."

Chittagong/rural/f/cd/o

"...Taka 400 needs to be spent..."

Chittagong/rural/f/cd/o

"...for boiling water, every month Taka 100 to 200 is spent..."

Rajshahi/urban/f/cd/y

".....for boiling water around Taka 150 is spent every month..."

Rajshahi/urban/m/ab/y

".....monthly Taka 500 to Taka 600 needed to boil water..."

Rajshahi/urban/m/ab/o

2.16. AWARENESS ABOUT WATER PURIFYING TABLETS

There is very little awareness about Water Purifying Tablets (WPT) and even fewer have either seen or used it.

"...I've heard about it but never used it..."
Dhaka/urban/f/cd/y, Rajshahi/rural/m/cd/o

"...I saw it on TV..."
Dhaka/rural/f/ab/y

"... yes, it's distributed free sometimes during flood..."
Dhaka/rural/f/cd/y

"....we have heard of it...."
Chittagong/urban/f/ab/y

have heard about such tablet...."
Chittagong/urban/f/ab/o, Khulna/urban/f/cd/y

"..only have heard about it..."
Chittagong/urban/m/cd/y, Rajshahi/urban/f/cd/y, Rajshahi/urban/m/ab/y

"..yes ..I know about purifying tablet....I know its use also..."
Chittagong/rural/f/cd/o, Rajshahi/urban/m/ab/o

"...do not know or didn't see water purifying tablet..."
Chittagong/rural/f/cd/o

"....have heard about it but never seen any"
Chittagong/rural/f/cd/o, Rajshahi/rural/f/ab/y, Khulna/urban/f/ab/o, Khulna/urban/m/ab/o, Khulna/rural/f/ab/y

"...Have not heard about such a tablet...."
Chittagong/rural/m/ab/o

"....Had seen in TV that 'Aila' affected people are being helped with water purifying tablets...."
Rajshahi/urban/m/ab/y

".....have seen in TV advertisement but never used any...."
Rajshahi/rural/f/cd/y

"....have heard about the effectiveness of the tablet, but haven't seen any tablet or did not use before..."
Rajshahi/rural/m/cd/o

2.17. KNOWLEDGE ABOUT WATER PURIFYING TABLETS

Function of WPT is understandable from its basic descriptive name but proper knowledge about how to use WPT is almost non-existent.

"...drop a tablet in water and keep in for 30 minutes...one tablet in one jar...saw it on TV.."

Dhaka/rural/f/ab/y

*"..boil water and put one or two tablets on it.."
"...one tablet in 5 liters and two tablets in 10 liters..."*

Dhaka/urban/f/cd/y

"...put one tablet in 2/3 liters, wait ten minutes..."

Dhaka/urban/m/ab/y

"...I have seen in TV that one tablet is required for one 'Kolosh'...[none used]."

G-7

".....have seen in TV that one tablet is used for 10 liters water, but never used any...."

Chittagong/urban/f/ab/o

"...for river water we used two tablets in 10 liters, for other waters one tablet in 10 liters..."

Dhaka/urban/m/ab/y (user BRAC worker)

"..In one liter water 1 tablet required..."

Chittagong/urban/m/cd/y

"..yes ..I know about purifying tablet....I know its use also...2 tablets in 3 liters water and to be kept for 20 minutes before drinking...."

Chittagong/rural/f/cd/o

".....in 10 liter water 1 tablet need to be used and kept for 6 hours before drinking..."

Chittagong/rural/m/ab/o

"....one bottle of water needs one tablet for purification.."

Rajshahi/urban/f/cd/y

".....for each 5 liter or 10 liter water one tablet is required to be used..."

Rajshahi/urban/f/cd/y

"...have seen in TV that after dissolving the tablet in water for sometime when the dirt and impurities settle at the bottom of container, the water needs to be sieved before drinking..."

Rajshahi/urban/m/ab/y

"...have seen in TV that one tablet needs to be dissolved in each 5 liter water..."

Rajshahi/urban/m/ab/y

".....I had used WPT in a marriage event, and for 200 liters water 10 tablets were used..."

Rajshahi/urban/m/ab/o

"...in 2 or 2-1/2 liter water 1 tablet need to be used..."

Rajshahi/urban/m/ab/o

"...in one 'Kolosh' water 1 tablet if required to be given....but do not know what should be the quantity of water...."

Rajshahi/rural/f/cd/y

".. I know that in one container full of water 2 tablets is required to be dissolved and kept for half an hour for purification..."

Rajshahi/rural/f/ab/y

"...In one jug of water 1 tablet needs to be dissolved for 1 to 2 hours. Then the water can be used for drinking..."

Rajshahi/rural/f/ab/y

"...depending on type of 'Kolosh' 1 to 2 tablets are required to dissolve and after sieving the water same can be drunk.."

Khulna/urban/f/cd/y

"...in 5 liters water 2 halogen tablets are required to be dissolved..."

Khulna/urban/f/ab/o

"...during flood government gave tablets for purifying water and we used same..."

Khulna/urban/m/ab/o

"...have heard that after boiling the water, same needs to be sieved and then 1 tablet is put in one liter of water.."

Khulna/rural/f/ab/y

2.18. AQUATAB CONCEPT

Overall reaction to Aquatab concept was positive.

"it's good...more convenient than boiling and cooling..."

Dhaka/urban/f/cd/y, Dhaka/urban/m/ab/y, Dhaka/rural/f/ab/y, Dhaka/rural/f/cd/y

"...it's a good thing, we could use it, try and see..."

Dhaka/urban/f/cd/y, Dhaka/urban/m/ab/y, Dhaka/rural/f/ab/y

"...I think we could use it to purify river water also..."

Dhaka/rural/f/ab/y

"...It seems good....."

Chittagong/urban/f/ab/y

"...It seems to be an easy process...."

Chittagong/urban/f/ab/y, Chittagong/urban/f/ab/o

"...can drink safe water without any tension..."

Chittagong/urban/f/ab/o

"....Did not know before ...now I know what it is..."
Chittagong/rural/f/cd/o

"...we have liked it..."
Chittagong/rural/f/cd/o

".....liked it....."
Chittagong/rural/m/ab/o

"....Knew how to purify water...."
Chittagong/rural/m/ab/o

".....sounds good. This can be used to get safe water..."
Rajshahi/urban/f/cd/y

"....can be had from nearby place and will require less fatigue for purifying water..."
Rajshahi/urban/f/cd/y

"...Tablet is certainly good...."
Rajshahi/urban/m/ab/y

"...in concept paper if USA and UK's would be included then it would be more convincing."
Rajshahi/urban/m/ab/y

"This tablet can be used in cyclone, flood, and natural calamity affected areas..."
Rajshahi/urban/m/ab/o

"...Seems good. I have known something new which I did not know..."
Rajshahi/rural/f/ab/y

"...Earlier we drank lot of impure water. Now onwards we shall be able to drink pure and safe water..."
Rajshahi/rural/f/ab/y

"...Everybody can use it easily..."
Rajshahi/rural/m/cd/o, Khulna/urban/m/ab/o

".....I don't know whether the tablet has reached our village level, but shall check tomorrow..."
Rajshahi/rural/m/cd/o

"...using this tablet pure water will be available and this is not expensive..."
Khulna/urban/f/cd/y

"...Tablets will save time and it is easy to carry anywhere ..."
Khulna/urban/f/ab/o

"..it will purify water and we can get relief from disease.."
Khulna/rural/f/ab/y

"...the much we heard we thing the tablet can be relied upon..."
Khulna/rural/f/ab/y

Some reactions were ,however, mixed and guarded with conditions.

"if it cleanses water and does not make the water smelly, it's good..."
Dhaka/rural/f/ab/y

"...can't say anything, may be it's good..."
Dhaka/urban/f/cd/o

*"I can only tell after using it, if I feel satisfied after drinking water purified with it
(Aquatab), then there's no problem..."*
Dhaka/urban/f/cd/y

"....it saves from lot of hassle.....at least can have safe water for 24 hours...."
Chittagong/urban/m/cd/y

"...it takes less energy/ labor to purify water with aquatab..."
Chittagong/urban/m/cd/y

"it doesn't have any side effect....."
Chittagong/urban/m/cd/y

"...In 10 liters water 1 tablet is required to be dissolved...."
Rajshahi/rural/f/cd/y

"...tablet is good and can receive safe water easily...."
Rajshahi/rural/f/cd/y

"...shall use same if there is no side effect..."
Rajshahi/urban/m/ab/o

"...shall use it if price is less..."
Rajshahi/urban/m/ab/o

"...shall use it if available in the market..."
Rajshahi/urban/m/ab/o

"...This tablet can be used for limited time that is up to 24 hours from its application..."
Khulna/urban/f/cd/y

Urban people felt that Aquatab is a product for rural areas only.

*"Water takes a long time to boil in fire wood clay ovens in villages so it (Aquatab) will be
very good for villagers.."*
Dhaka/urban/f/cd/y

"...it (Aquatab) is not for us, it is for use in villages, for us boiling is better..."
"...we might use it when we do not have gas supply...."
Dhaka/urban/f/cd/o

Other reactions expressed after probing were either attitudinal or related to perceived advantages or disadvantages all of which have been reported in the respective sections that follow.

2.19. PERCEIVED ADVANTAGES OF WATER PURIFYING TABLETS

(Why would you use WPT?)

WPT could be the much needed break for most urban housewives away from the daily time consuming drudgery of boiling water. Its convenience could be the strongest appeal to potential urban households given an appropriate mix of other marketing elements to slowly turn it into a daily necessity.

"...saves time, very convenient... NO NEED TO WAIT TO BOILD AND COOL"

"...no more stained pans from boiling water..."

"...quick process, just get water from tap, put the tablet in it and it's done, ...no boiling!..."

"...possibly safe, no side effects..."

Dhaka/urban/f/cd/y, Chittagong/urban/f/ab/o

"saves time, don't have to wait to boil and cool..."

Dhaka/urban/f/cd/o, Dhaka/rural/f/ab/y

"...it is very convenient..."

Dhaka/urban/m/ab/y, Dhaka/rural/f/ab/y, Dhaka/rural/f/cd/y

"...tablet is best, we can use it even when we are traveling..."

Dhaka/urban/f/cd/o, Dhaka/rural/m/ab/o

"...since boiling of water is not required, there will be saving of gas..."

Chittagong/urban/f/ab/o

"...good for flood affected areas..."

Dhaka/urban/f/cd/o

"When I come back home from work and I find there's no drinking water, I'll simply drop two tablets in water and go to take a bath, it will be ready in 30 minutes, it will save time and efforts"

Dhaka/rural/f/ab/y

"...it will easily purify water..."

Dhaka/urban/f/cd/y, Dhaka/rural/f/ab/y, Dhaka/rural/f/cd/y

"...at a time large quantity of water can be purified..."

Chittagong/urban/f/ab/y

"...very advantageous to purify water in any program or occasion. [where lot of people gather]"

Chittagong/urban/f/ab/y

"...if tablet is used then there will be no water bore disease..."

Chittagong/urban/f/ab/o

"...shall be available at reasonable price and the purifying process is also easy..."

Chittagong/urban/m/cd/y

"...at a time large quantity of water can be purified..."

Chittagong/urban/m/cd/y

"...shall get relief from diarrhea...."

Chittagong/rural/f/cd/o

"...shall be relived from hassle of collecting water from someone else's house...."

Chittagong/rural/f/cd/o

"...shall remain safe from cholera, dysentery etc...."

Chittagong/rural/m/ab/o

".....shall remain tension free if aquatab is used...."

Chittagong/rural/m/ab/o

"...less fatigue and saves money..."

Chittagong/rural/m/ab/o

"...shall get safe water to drink..."

Rajshahi/urban/f/cd/y

"...No need to boil water any more..."

Rajshahi/urban/f/cd/y

"...easy to use and saves money..."

Rajshahi/urban/m/ab/o

"...don't need to boil water. Water can be purified with tablet easily..."

Rajshahi/rural/f/cd/y

"...it is easier to purify water with tablet compared to boiling..."

Rajshahi/rural/f/ab/y

"...the advantage of tablet is that it does not have the hassle of spoiling time and energy as required for boiling water..."

Rajshahi/rural/m/cd/o

"...Tablet has no side effect..."

Rajshahi/rural/m/cd/o

"...water can be purified easily...."

Khulna/urban/f/cd/y

"...Shall get safe water and can carry tablets any where I like..."

Khulna/urban/f/cd/y

"...by using tablets for water purification, containers will not be spoiled [no wear tear due to heating as happens in boiling]..."

Khulna/urban/f/cd/y

"...Price is less and safe water will be available....."

Khulna/urban/m/ab/o

"...using this tablet for water purification, we can get relief from diarrhea, cholera and dysentery..."

Khulna/rural/f/ab/y

2.20. PERCEIVED DISADVANTAGES OF WATER PURIFYING TABLETS

The possible effects of WPT on the physical and sensory properties of water could be a concern. Usually people are sensitive to the taste of water they drink and any unpleasant effect on the taste could become a potentially strong deterrent.

"...it (WPT) makes water less tasty..."
Dhaka/rural/f/cd/y

"it (WPT) could make the water smelly..."
Dhaka/urban/f/cd/y, Dhaka/rural/f/ab/y

"...we cannot use it after 24 hours..."
Dhaka/rural/f/cd/y

".....there could be side effect of this tablet..."
Chittagong/urban/f/ab/y, Rajshahi/urban/m/ab/o

".....there could be smell in water if tablets are used to purify same....."
Chittagong/urban/f/ab/o

"...There is no disadvantage of aquatab..."
Chittagong/rural/f/cd/o, Rajshahi/urban/m/ab/o

"....cannot take water before half an hour...i.e. need to wait for half an hour after the tablet is put in water..."
Chittagong/rural/f/cd/o

"..water purified with aquatab cannot be drunk after 24 hours of its use..."
Chittagong/rural/f/cd/o, Rajshahi/rural/f/cd/y, Khulna/urban/f/cd/y

"...No hassle...."
Chittagong/rural/m/ab/o

"...this will be a big hassle/ concern if after using the tablet for sometime and getting used to it, if these are not available in the market or the supply is disrupted anyway..."
Rajshahi/urban/f/cd/y

"...this will be a disadvantage if smell is strong and uncomfortable..."
Rajshahi/urban/f/cd/y, Rajshahi/urban/m/ab/y

"...there is no disadvantage in tablet..."
Rajshahi/rural/f/ab/y

"...if the date expires for the tablets then it may become injurious for health..."
Khulna/urban/f/cd/y, Khulna/rural/f/ab/y

"..don't know how to use it for 1 liter water [small quantity].."
Khulna/urban/m/ab/o

2.21. ATTITUDE TOWARDS WATER PURIFYING TABLETS

WPT is a non-necessity in the rural context because tube well water is considered not necessary to be treated.

"...tablet is not necessary in tube well water..."
Dhaka/rural/m/ab/o

Concerns about WPT in urban areas revolve around its safety and efficacy. The fact that it has germicide properties might come up as a sensitive issue. What if its germicide property turns around if not managed right? This could be a dormant consideration now.

"... I really don't know... what if after 24 hours it becomes poisonous...it is a medicine to kill germs..."
Dhaka/rural/fcd/y

"...it (WPT) is possibly safe... possibly no side effects..."
Dhaka/urban/fcd/y

"...shall use this tablet to remain safe from diseases..."
Chittagong/rural/fcd/o

"...shall must buy to remain healthy...."
Chittagong/rural/fcd/o

"...this tablet is new in the market...shall require to use and see how expensive is it..."
Khulna/urban/fab/o

"...I have arsenic free tube well and therefore, shall not use any tablet.."
Khulna/rural/fab/y

It is essential to be prepared to face some (perhaps not undue) cynicism from urban households about the true efficacy of WPT. Any communication in this regards must be well balanced to ensure that any emphasis on high efficacy does not return as a boomerang by raising questions about side effects.

"... tablets will not be able to do anything (purify) to Dhaka water (municipal supply water)... it's so bad..."

"...we get sick even after drinking boiled water, so we have to test it first and then we can say anything..."

"...might be safe... we don't know..."
Dhaka/urban/fcd/y

"not knowing the right method can be a big problem...what if we have any problem (using it)"
Dhaka/rural/m/ab/o

".....lot of people believes that the tablet is safe, but it can be risky also..."
Chittagong/urban/fab/y

".....no chance of use as I don't have faith in this tablet..."
Chittagong/urban/fab/y

There is a controversy about whether the 24 hours time limit, within which water treated with WPT is to be used, is adequate or not. Some feel it is, others don't think so.

"We cannot use it after 24 hours, we have to throw away all the remaining water and start all over again..."
Dhaka/urban/f/cd/o

"...it's good, we can keep the treated water for up to 24 hours, so we don't have to worry for 24 hours after purifying the water..."
Dhaka/rural/f/cd/y

"..shall use one tablet first and if found good shall consider to use further..."
Chittagong/urban/m/cd/y

"....I shall buy. However, I want to test its smell first"
Rajshahi/urban/f/cd/y

"...I shall use it in spite of its little smell as it will ensure safe water and will keep body healthy and without disease..."
Rajshahi/urban/f/cd/y

"...Shall use tablet to remain healthy and free from disease..."
Rajshahi/rural/f/ab/y

2.22. PERCEIVED EFFECTIVENESS OF WPT (POST CONCEPT)

WPT might bring the much needed feeling of relief and comfort for many but may not do so for many others! Debates might surface for some time about its effectiveness, particularly amongst urban households.

"...still...we have to filter (the water), even after purifying it with that (Aquatab) tablet..."
Dhaka/urban/f/cd/y

"this is best, even after boiling we feel some uncertainty, now with the tablet, that uncertainty is gone !..."
Dhaka/urban/m/ab/y

"...it will kill germs; there will be no disease..."
Dhaka/rural/f/cd/y

"...tablets are perfect way to purify water..."
Khulna/urban/f/cd/y

"..if the tablets are made more effective then the same can be used..."
Khulna/urban/m/ab/o

2.23. INTENTION TO USE AQUATAB

Any positive intention expressed to purchase Aquatab is to be taken with a pinch of salt because such intentions are shrouded with conditions, primarily of price, availability, circumstances of usage, effects on water and attitude arising from deep rooted faith in the boiling water process.

In other words,

"...yes, of course..."

All groups

BUT, conditions apply.

"...if it is priced right... I mean not expensive..."

Dhaka/urban/f/cd/y

"...we can only use it if we get it nearby..."

Dhaka/urban/f/cd/y, Dhaka/rural/f/cd/y

"...only if it has the Government's recommendation, then we will use it..."

Dhaka/urban/m/ab/y

"...only when we visit our village homes..."

Dhaka/urban/f/cd/o

"...if it does not make the water smell, I might..."

Dhaka/rural/f/ab/y

"...shall use it if there is no problem..."

Chittagong/urban/f/ab/y

"...during flood when we cannot use tube well water at that time we shall use aquatab..."

Chittagong/rural/f/cd/o

"...shall buy if available in the market..."

Chittagong/rural/f/cd/o, Chittagong/rural/m/ab/o, Rajshahi/urban/f/cd/y, Rajshahi/urban/m/ab/o,
Khulna/urban/f/cd/y, Khulna/urban/f/ab/o

"...shall use tablet if safe and pure water is not available..."

Rajshahi/rural/f/cd/y

"...when I go out to long tour then I shall use water purifying tablets..."

Khulna/urban/f/ab/o

A strong attitudinal resistance should be expected from urban households who have since long learnt to trust boiling water as the only proven method of treating drinking water.

"...cannot fully trust tablet, I prefer boiling..."
Dhaka/urban/f/cd/o, Dhaka/rural/f/ab/y

"I will not use the tablet, I will only boil water, I feel safer boiling water..."
Dhaka/urban/m/ab/y

Some feel that the 24-hour time limit within which water treated with WTS should be used is not adequate. Therefore, they will only buy Aquatab if it works for longer.

"We cannot use it after 24 hours...that's a problem, we have to throw away whatever is left unused and start all over again..."
Dhaka/urban/f/cd/o

"we can use it but...the time 24 hours... has to be extended..."
Dhaka/urban/f/cd/o

Others feel that the tablets are more convenient to use for purifying water and they feel safe to use same.

Dhaka/urban/m/ab/y

"...surely shall use...it will save time..."
Chittagong/urban/m/cd/y

"...Of course shall use regularly for health and safe water..."
Rajshahi/urban/f/cd/y

".....shall try to know from the doctor and then use it after 3 to 4 months....."
Rajshahi/urban/m/ab/y

"....Shall use it when I am touring / traveling then I shall use same..."
Rajshahi/urban/m/ab/y

"...shall use it if price is less..."
Rajshahi/urban/m/ab/O

"..Shall use tablets if available at affordable price..."
Rajshahi/rural/m/cd/o, Khulna/urban/m/ab/o

"...shall use during flood and natural calamity..."
Khulna/rural/f/ab/y

2.24. REACTION TO PRICE – TAKA 2

It is acknowledged that 2 Taka is not a huge price, but it is a concern when added up in terms of monthly expenditure. At that point, Taka 2 is no longer acceptable for many.

It must be remembered that at the moment there is no out of pocket expense being paid for boiling water. This is because in rural areas tube well water is not treated and in urban areas, boiling does not require additional gas bill. Therefore asking people to pay any price no matter how nominal it might be in the face of all attitudinal hurdles could be a major challenge.

"Taka 2 is not an issue, but we need to purify water not just for drinking, we need pure water for other purposes like washing raw food, table dishes. Then we need at least 20 to 30 liters every day. That's a lot of money..."

Dhaka/urban/f/cd/y

"...that is an expensive price for poorer people..."

Dhaka/urban/f/cd/o

"...Taka 1 is a better price..."

Dhaka/urban/f/cd/o, Dhaka/rural/f/ab/y, Dhaka/rural/f/cd/y, Chittagong/urban/f/ab/y,
Chittagong/urban/f/ab/o

"...it should be nominally priced, 10 tablets for Taka 6/7 is okay..."

"...it should be nominally priced, right now boiling does not cost us anything..."

"...it is less expensive than fire wood that has to be used in clay stove in villages..."

Dhaka/urban/m/ab/y

"...we prefer Taka 50 for one hundred tablets, even that is an expensive price for some people"

Dhaka/rural/m/ab/o

"...yes...agreeable to by with taka 2 per tablet..."

Chittagong/urban/m/cd/y

"...it will be better for all if 4 tablets can be had in 1 Taka..."

Chittagong/urban/m/cd/y

"....Yes ..we have intension to buy...[all]"

Chittagong/rural/f/cd/o

"Taka 2 is o.k. for the tablet..."

Chittagong/rural/f/cd/o

"....are willing to buy at Taka 2 per tablet....however for poor people it would be advantageous if price is Taka 1 per tablet...."

Chittagong/rural/m/ab/o

"...my life is important for me....so I shall definitely buy..."

Chittagong/rural/m/ab/o

".....it would be better for poor people if the price is 50 paisa per tablet..."
Chittagong/rural/m/ab/o, Rajshahi/rural/m/cd/o, Khulna/urban/f/ab/o, Khulna/urban/m/ab/o

".....Yes, we shall buy the tablet.....Taka 2 is okay..."
Rajshahi/urban/f/cd/y

"...shall buy it with Taka 2...."
Rajshahi/urban/m/ab/Y

*"...It would be helpful for poor people if price per tablet is 50 paisa and is available in a
pack of 10 tablets per strip..."*
Rajshahi/urban/m/ab/y

"....For urban people Taka 2 is alright but for rural people Taka 1 seems justified..."
Rajshahi/urban/n/ab/o, Khulna/urban/f/ab/o, Khulna/urban/m/ab/o, Khulna/rural/f/ab/y

"...Taka 2 seem high...price should be 25 to 50 paisa maximum per tablet..."
Rajshahi/urban/m/ab/o

"...willing to buy at Taka 2...."
Rajshahi/rural/f/cd/y, Rajshahi/rural/f/ab/y, Rajshahi/rural/m/cd/o, Khulna/urban/f/cd/y

2.25. PREFERENCE BETWEEN WPT AND BOILING

A significant enthusiasm for WPT was not evident even after showing the concept. Preference for boiling continued to dominate. For some, WPT might be an additional element in the boiling process to make it more complete, but not an alternative to boiling.

"...possibly tablet... (unsure)"
Dhaka/urban/f/cd/y, Dhaka/rural/f/ab/y

"...we might use it after boiling to bring a completeness (of water purification)..."
Dhaka/rural/f/cd/y

"We prefer boiling. Boiling is more effective"
Dhaka/urban/f/cd/o (unanimously), Rajshahi/urban/m/ab/y

Reasons mentioned for preferring WPT by a few were the same as advantages of using WPT (convenience, time saving).

"...tablet is preferable as it will require less time to purify water..."
Chittagong/urban/f/ab/y

"...tablets can be used for saving time....."
Chittagong/urban/m/cd/y

"...tablet will save time.....and cost..."
Chittagong/rural/f/cd/o

"...shall be relived from standing beside the oven for a long time..."
Chittagong/rural/f/cd/o

"... Tablet is preferred...reason is no hassle of boiling and no wastage of time...."

Chittagong/rural/f/cd/o, Rajshahi/urban/m/ab/y

"...don't need to fire the oven for boiling...."

Chittagong/rural/m/ab/o

"....clean and pure water can be had within short time..."

Chittagong/rural/m/ab/o, Rajshahi/rural/f/cd/y

".....tablet will be used and there will be no hassle of boiling water..."

Rajshahi/urban/f/cd/y, Rajshahi/rural/f/cd/y

"...tablet is preferred ...it is less expensive, saves time and labor..."

Rajshahi/urban/m/ab/o, Rajshahi/rural/m/cd/o, Khulna/urban/f/ab/o

"....tablet is better and preferred....there is no taste in boiled water....water purified by tablet can be drunk more quickly than boiled water...."

Rajshahi/rural/f/ab/y

"..tablets are preferred because it will save cost of boiling and less fatigue....."

Khulna/urban/f/cd/y, Khulna/rural/f/ab/y

"..less time will be required and there will be no chance of accident.."

Khulna/urban/f/cd/y

"..Prefer tablet to boiling, because even after boiling the water needs to be sieved. No such hassle in tablets..."

Khulna/urban/m/ab/o

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