



PAKISTAN SAFE DRINKING WATER AND HYGIENE PROMOTION PROJECT

Knowledge, Attitudes, and Practices: Peshawar Town-1
Water, Sanitation and Hygiene

FINAL REPORT

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List of Acronyms

DHS	Demographic Health Survey
EB	Enumeration Block
FBS	Federal Bureau of Statistics
FGD	Focus Group Discussion
KAP	Knowledge, Attitudes and Practices
KPK	Khyber Pakhtunkhwa
MDG	Millennium Development Goals
NWFP	North-West Frontier Province
NWQMP	National Water Quality Monitoring Program me
PCRWR	Pakistan Council of Research in Water Resources
PPS	Probability Proportional to Size
PSLM	Pakistan Social and Living Standards Measurement Survey
PSDW-HPP	Pakistan Safe Drinking Water and Hygiene Promotion Project
PSU	Primary Sampling Unit
SPSS	Statistical Package for Social Science
SSU	Secondary Sampling Unit
UNICEF	United Nations Children's Fund
UC	Union Councils
WASH	Water, Sanitation, and Hygiene

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1. EXECUTIVE SUMMARY

This report presents the results of the Knowledge, Attitudes and Practices (KAP) Survey and Focus Groups Discussions (FDG) on water supply, sanitation, and hygiene in Peshawar Town-I. The survey and FDGs were conducted from June to September 2010 by the USAID-funded Pakistan Safe Drinking Water and Hygiene Promotion Project (PSDW-HPP).

Quantitative data was collected from the female head of household in Peshawar Town-I. A two-stage stratified sampling design was used where 25 Union Councils (UCs) were the strata, and the primary sampling units were the enumeration blocks (EB) within the UCs, and the secondary sampling units were households within the EBs. The data analysis in this report takes into account this sampling design and uses the overall sampling weights so that the results are representative of Peshawar Town-I. The survey sample size was 1000, which corresponds to a weighted population size of 81,857.

The quantitative data was supplemented with qualitative data from seven FGDs with 63 participants. Of the seven FGDs, three FGDs were held with a total of 28 men and four FGDs were held with a total of 35 women. Discussions continued with each group until saturation was reached (i.e. discussions yielded no new information). The average duration of the FGDs was 2 hours.

In terms of the basic characteristics of the households, the quantitative survey suggests that in Peshawar Town-I, approximately 66 percent of the adult women in the households have never attended school. Sixty five percent of the households owned the premises in which they were living; the remainder paid rent, and less than 3 percent owned agricultural land, indicating the high level of dependency on labor and services as the main source of income in Peshawar Town-I. The ownership of assets was also high among the households in Peshawar Town-I. Most households have access to services such as electricity (99 percent) and cooking gas (94 percent). Furthermore, the ownership of key assets such as electric fans (99 percent), refrigerators (84 percent), and washing machines (85 percent) was high.

A large majority of households (90 percent) have a water source inside the house or compound, and 75 percent relied on government supplied piped water inside the house. Not surprisingly, the findings were similar for the water supply used for other purposes (hand washing, bathing, washing clothes, etc.). Over 90 percent of households in Peshawar Town-I have access to water within their house/compound, while 9 percent collected water from a point outside the house.

The supply and quantity of water does not appear to be a concern, with the vast majority (82 percent) of the households stating that their daily water supply satisfied their day-to-day needs for drinking and preparing foods all year round. For 80 percent of households, water quantity was sufficient all year round to meet other needs (such as bathing and washing hands and clothes) as well. However, detailed discussions from the qualitative survey suggest that having enough water meant that the households had learned how to cope with the amount of water they had by storing water in their household, buying or fetching water, or using tube wells to supplement the municipal supply.

Storing drinking water appears to be a common coping mechanism for shortfall in water supply as more than 90 percent of the households reported storing drinking water in containers for all purposes, including drinking and cooking. Of the 90 percent of the households that stored water in containers, only 15 percent used all safe drinking water practices that included storing containers in a raised area, covering all containers with a hard cover, and taking out water correctly.

Furthermore, treatment of drinking water was not very common. Only 15 percent of the households reported treating their drinking water. However, only 74 percent of these treated *all* their drinking water, and 56 percent of those who treated water treated all their drinking water with

proper methods such as boiling the water and using water purification tablets. The low rate of treatment may be related to the general perception that the water quality is good. Of the 82 percent of the households that received water from a government pipe or tap, and almost 70 percent of those described the quality of the water as “always good”. Of these households, only 59 percent found the quality of the water to be “always good” with respect to *all* aspects of water quality -- color, smell and taste. This suggests that a household’s perception about quality of water and their expectation about good quality water, are very different. This may be driven by the general expectation that tap water is of good quality. Future FGDs can explore the reasons for this variance in expectation and perception, and whether the perception of water quality guides the decisions to treat or not treat water, or if it is based on a more objective assessment of its quality.

Although majority of the households perceived the tap water to be of good quality, only 13 percent of the households understood that water that is clear and does not smell is not necessarily safe to drink. Interestingly, of these households that had the correct perception about quality of water, only 6 percent of households described the quality of water to be always good.

While households lacked the knowledge to assess water quality, ninety percent of the respondents agreed that unclean drinking water can be related to diarrhea. This implies that future programs should focus on water testing and providing information about the quality of water. Given that a large majority of households understand that unclean water can cause diarrhea, such interventions could lead to greater awareness of water quality, and potentially increased treatment of drinking water.

Another area of sanitation concern appears to be poor sewage system. Approximately 97 percent of the households in Peshawar Town-I had an open-drain system in their area. Furthermore, twenty-six percent of the households had an open drain system and also experienced the problem of overflowing drains very often, and 25 percent faced it occasionally. In the qualitative surveys also a common issue raised was the problem of overflowing open drains.

With respect to hand washing practices, most households reported having soap in the house and 76 percent of the households reported washing hands at critical times: approximately 36 percent reported washing hands after cleaning a child’s bottom or stool, 17 percent before preparing food, 13 percent before eating food, 9 percent after defecating and only 1 percent before feeding the child.

Since hand washing cannot be observed and is self-reported, there can be an upward bias in the hand washing estimates. Therefore, it is useful to compare the location of hand washing with the observed location of the soap since this can provide some indication of actual hand washing behavior. Overall fewer households reported having a provision for washing hands with soap than those that reported washing hands with soap. Only forty-three percent of the households surveyed had a provision for washing hands inside the bathroom, 25 percent of the households had a hand washing area located near the toilet, and 31 percent had it in the yard. In the qualitative survey the respondents admitted that they do not practice hand washing with soap and instead use only water, and sometimes this was related to unavailability of soap outside their homes.

2. INTRODUCTION

This report presents the results of the Knowledge, Attitudes and Practices (KAP) Survey and Focus Groups Discussions (FDG) carried out in Peshawar Town-I from June to September 2010 by the USAID-funded Pakistan Safe Drinking Water and Hygiene Promotion Project (PSDW-HPP). The field survey and data entry was conducted by SEBCON (Pvt) Limited.

The adverse effects of unsafe water, poor sanitation and poor hygiene on health and development indicators in general are well-known. In its 2006 Human Development Report, the UNDP clearly shows the link between human development costs and inadequate access to water and sanitation:

each year about 1.8 million children die as a result of diarrhea; children lose 443 million school days each year from water-related illness; women across the world spend hours each day collecting water, taking them away from other responsibilities and opportunities; and although difficult to measure, this results in massive economic waste in the form of health spending, productivity loss, and labor diversion (UNDP 2006).

The Millennium Development Goals (MDGs) also recognize that lack of access to improved water sources and sanitation creates major hardships and constraints around the world. MDG 7 Target 10 aims to halve the proportion of people without sustainable access to safe drinking water and basic sanitation between 1990 and 2015. In addition, addressing deficiencies in water and sanitation will be necessary to meet a number of other MDGs, such as decreasing the under-five child mortality rate by two-thirds by 2015 and significantly improving the lives of at least 100 million slum dwellers by 2020. These are, however, daunting undertakings since an estimated 1.1 billion people face inadequate access to water and 2.6 billion people lack basic sanitation (UNDP 2006).

In Pakistan, only 45 percent of the population has access to improved sanitation facilities and 90 percent to improved drinking water sources, whereas the targets for 2015 are 68 percent and 93 percent, respectively (WHO, 2010). The 2006-2007 Demographic Health Survey (DHS) found diarrheal prevalence among children under five in the two weeks prior to the survey to be 22 percent. Diarrheal prevalence was found to be highest in Khyber Pakhtunkhwa (KPK – formerly known as North-West Frontier Province or NWFP) and Sindh at 24.7 and 23.6 percent respectively, followed by Punjab (20.6 percent) and Balochistan (16.2 percent). Between urban and rural areas, the prevalence was about the same: 21.1 percent and 22.1 percent, respectively. The DHS also found that diarrhea is responsible for 11 percent of deaths of children under five.

With respect to sources of water, the DHS (2006-2007) survey found pipe water into dwellings to be the most common source of drinking water in KPK (45 percent), with overall access to improved water source at 83 percent. KPK has the highest percentage of drinking water piped into dwellings followed by Balochistan at 42 percent, Sindh at 36 percent, and Punjab at 33 percent. Other sources of drinking water in KPK include tube wells, boreholes, and hand pumps at 21 percent, protected dug wells at 12 percent, public stand pipes and protected springs at 7 percent, and the remaining 15 percent are non-improved sources of drinking water such as unprotected dug wells and springs. Non-piped sources can be contaminated if proper protection is not in place when water is transported or stored. In addition, piped water can also get contaminated through leakage in the distribution system if the water pressure is not maintained. With respect to sanitation, only 43% of the people in KPK have access to an improved sanitation facility which is below the national average of 50%. In addition, 31% of the people in KPK does not have any sanitation facilities and practice open defecation which is about the same percentage of the national average.

3. Objectives and Methods of the Study

The study was designed to obtain baseline information on knowledge, attitudes, and practices (KAP) at the household and community level in Peshawar City-Town I regarding drinking water supply, water storage, sanitation, and hygiene. The results will be used to design and evaluate impact of future investments in Town I.

The data for this report came from both a quantitative survey that was conducted between June and July, 2010, and qualitative focus group discussions that were conducted in August and September, 2010.

What is KAP?

Knowledge – community's understanding of a topic

Attitudes – community's feelings toward the topic and to any preconceived ideas they may have towards it

Practices – ways in which the community demonstrates knowledge and attitudes through actions

3.1. Quantitative Survey

The survey component obtained baseline information on knowledge, attitudes, and practices related to water, sanitation and hygiene at the household and community level through in-depth interviews with an adult woman in the household. The household survey commenced on June 19 and was completed on July 10, 2010.

The survey collected information on several indicators to measure the knowledge, attitudes, and practices of households with respect to water supply and quality, water storage and treatment, hygiene, and sanitation as well as information on key household characteristics that may explain the variation in these indicators. The survey form is attached as Appendix 2. More specifically, the survey collected information on the following components:

- Water Supply and Quality
- Sources of water
- Quantity and quality of water supply
- Cost of water
- Water Storage and Treatment
- Water purification methods
- Methods of storage and handling of water
- Hygiene
- Hand washing with soap at critical times
- Perception about water disease
- Availability of soap
- Sanitation
- Toilet access and use
- Drainage system for rainwater and other water

A two-stage stratified random sampling method was used to collect information from female household heads using sample of 1000 households from urban areas in Peshawar Town-I, where Union Councils (UCs) were the strata (see Appendix 1 for detailed information on survey development and sampling). The enumeration blocks (EBs) were the primary sampling units (PSUs) and households within the EBs were the secondary sampling units. Two EBs were selected from each of the 25 UCs that comprised Peshawar Town-I. The probability of selection of the EBs was equal to the proportion of the households in EBs with respect to the total population in the UC. Next, 20 households were selected from each of the EBs, for a total sample size of 1000 households.¹

This sampling design implies that the selection probabilities were different across households, and each household in the survey stands proxy for a different number of households in the population. Therefore, when the sample was used to calculate the estimates for the population –in this case the population of Peshawar –Town I – it was necessary to weight the sample data to ensure that each group of households is properly represented. The sampling weights are the reciprocal of sampling probabilities because household with high (low) probability of selection represent a smaller (larger) number of households in the population.

Given the two-staged design the sampling weight for each household is the product of the inverse probability of selection for the first stage and second stage (see Appendix 1 for the formulae). Since sampling weights are used to calculate the tabulations, the number of sample observations is not

¹ There are 653 EBs in Peshawar city, and each EB has approximately 200-250 households.

provided in the tables. The sample size of 1000 households corresponds to population size of 81,857 using the sampling weights.

3.2. Focus Group Discussion

The qualitative focus group discussions were conducted to provide context for the results of the quantitative survey and to gain an in-depth understanding of specific aspects of the survey emerging from the preliminary analysis. Seven FGDs were held between August 25 and September 16, 2010 with a total of 63 participants. Three FGDs were held with a total of 28 men and four sessions with a total of 35 women. Discussions continued with each group until saturation was reached (i.e. discussions yielded no new information). The average duration of the FGDs was 2 hours.

The team selected locations (within areas sampled for the quantitative survey) representing a mix of socioeconomic status and areas with reported good and bad service delivery with more of a focus on low and lower-middle class households. Initial groups were held with men and women perceived to be community leaders. Due to security concerns and the timing of the FGDs (most were held during Ramadan when schools were closed), groups were not held as originally planned with religious leaders or teachers. After informed consent was obtained, basic demographic information was collected for all participants.

The final FGD Guide is found in Appendix 3. The FGDs focused on the following topics:

- Hand washing
- Quantity of water
- Quality of water
- Service delivery: water
- Service delivery: sanitation/drainage system.

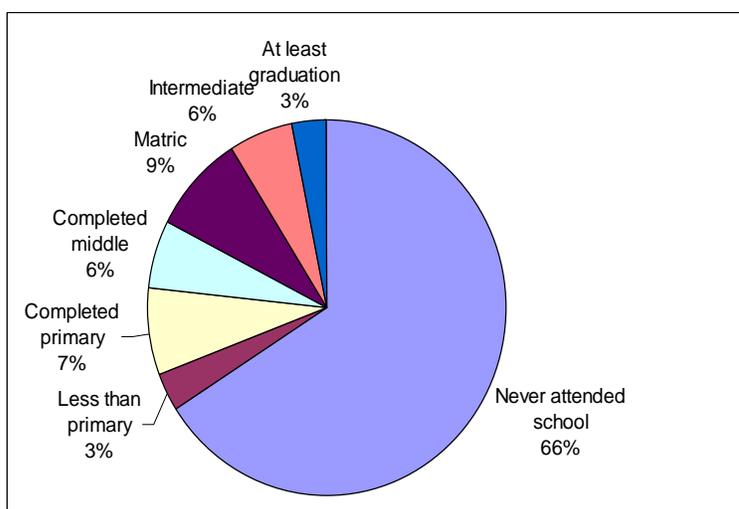
4. RESULTS

4.1. General Characteristics

Household Demographics

Survey: Quantitative

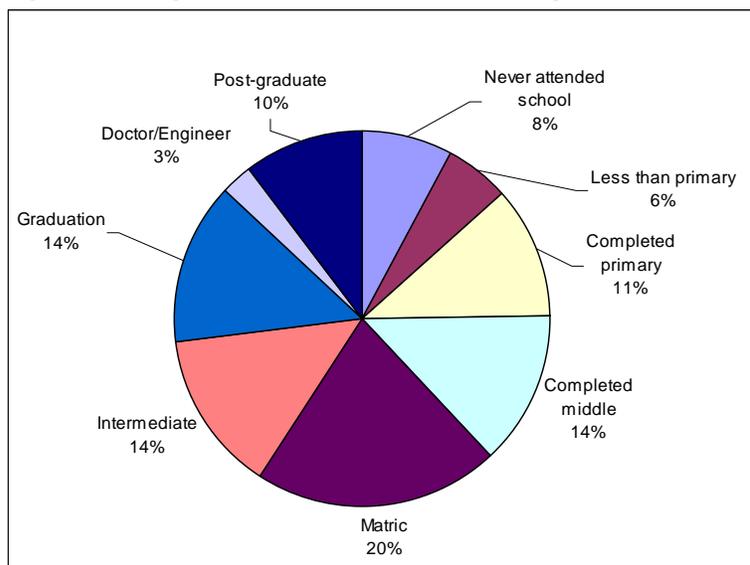
Figure 4-1 Education Level of Respondents



The women interviewed for the quantitative survey were in most cases female heads of household/mothers. More than 65 percent of the respondents were between the ages of 30 and 60. The majority of these people (66 percent) were women who never attended school (see Figures 4-1 and 4-2). Three percent completed less than primary, 7 percent completed primary, 6 percent completed middle school, and 9 percent studied up to matric (secondary) level. Only 6 percent of respondents

completed intermediate (higher secondary) and 3 percent graduated or earned a higher degree.

Figure 4-2 Highest Level of Education of any Member in the House



Studies have shown that the health outcomes may be positively affected by the highest education by any of the family members. The data on the highest degree of education of any member of the household reflects a better situation. Less than 8 percent never attended school, 6 percent completed less than primary, 11 percent completed primary, 14 percent completed middle school, and 20 percent completed the matric level. Furthermore, 14 percent

completed intermediate, 14 percent graduated, 10 percent received post-graduate degrees, and less than 3 percent had become professionals such as doctors or engineers.

The average number of household members was 9, with a range of 1 to 50 household members. However, the majority of households (56%) reported having five to nine household members. The

gender split of children in the households interviewed was found to be 52 percent boys and 48 percent girls. There was an average of two boys and two girls per family. Eighty-three percent of the boys were enrolled in school, while only 65 percent of girls were enrolled. The area was predominantly Pashto-speaking (70 percent) and 18 percent spoke Hindko, with the rest distributed among Urdu (7 percent), Afghani (2 percent), Persian (2 percent), Punjabi (1 percent), and other languages (1 percent).

FGD: Qualitative

The results of the FGD corroborate the survey data on the average of 9 members per household. According to FGDs, on average FGD participants had lived in Peshawar Town-I for 24 years. Overall 52 percent were native Hindko speakers, 41 percent Pashto, 5 percent Punjabi and 3 percent Urdu. Sixty-five percent of participants owned their own homes.

Forty-six percent of FGD participants had never attended school, 19 percent had completed matric and 17 percent had graduated. None of the participants were doctors or engineers. The rest of the sample was divided evenly between all the other categories (1-3 percent in each). Despite the fact that the participants had low educational levels themselves, the participants reported that 25 percent had family members who held a master’s degree while 11 percent had family members who were doctors or engineers.

Ownership of Assets

Survey results suggest that sixty-five percent of households in Peshwar Town-I owned the premises in which they were living; the remainder paid rent, as shown in Table 4-1. Less than 3 percent of the the Peshawar Town-I population owned agricultural land, indicating the high level of dependency on labor and services as the main source of income.

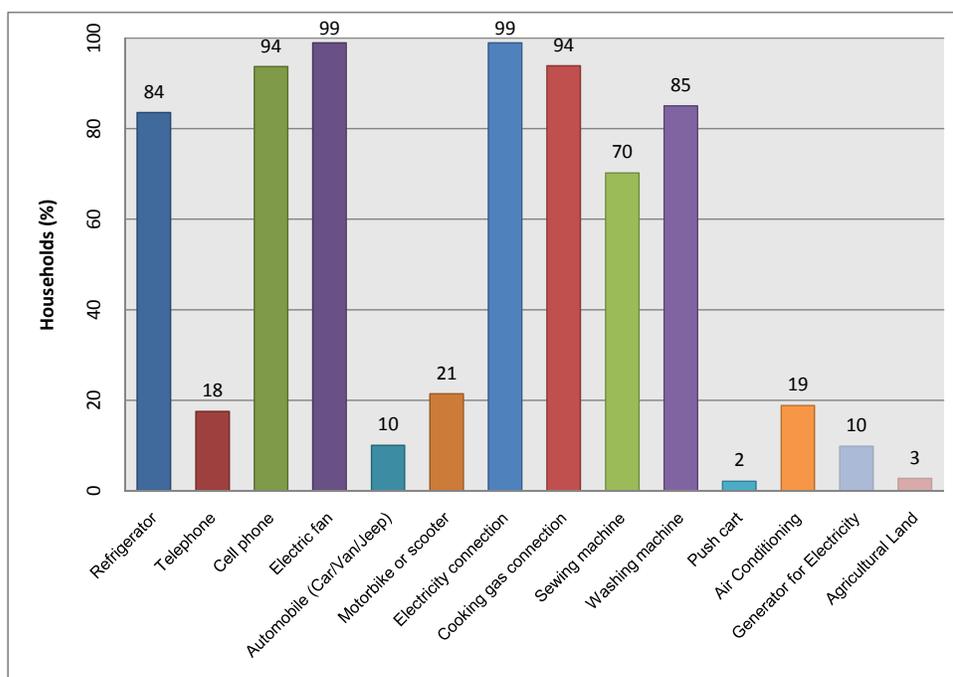
Table 4-1 Ownership of Houses with and without Agricultural Land

Ownership of House	Agricultural Land		Total
	No	Yes	
	%	%	
Self-Owned	63	2	65
Rented	34	0.7	35
Total	97	3	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 999.

The affluence of the population can also be gauged by the services and assets available at the household level (see Figure 4-3). Most of the households had access to services such as electricity (99 percent) and cooking gas (94 percent). Approximately 94 percent of the households owned cell phones and many owned other household assets such as electric fans (99 percent), refrigerators (84 percent), and washing machines (85 percent).

Figure 4-3 Available Services/Assets at the Household Level



4.2. Water Supply in Peshawar Town-I

Access to Water

Survey: Quantitative

In terms of access to and sources of drinking water, almost 90 percent of the households had a water source inside the house or compound. Overall, 75 percent of the people in Peshawar Town-I used government-supplied piped water and 14 percent used other sources within the house such as tube well, borehole, or protected dug well. Primary source of water for both drinking and water for other uses is shown below in Table 4-2.

Table 4-2 Primary Source of Water

Source of Water	Drinking Purpose	Other Use
	(%)	(%)
Piped (public) water (inside the house)	75	73
Tube well or borehole (inside the house)	14	17
Protected dug well (inside the house)	0.5	1
Public tap/standpipe (outside the house)	8	7
Filtration plant (outside the house)	0.7	0.1
Bring from someone house	2	2
Other (specify)	0.1	0.1
Total	100	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 1000

Eleven percent of the households reported no source of direct water supply inside the house/compound and the point of collection for drinking water was mostly situated at a distance of less than 100 meters. In 72 percent of these households, it took five minutes or less to fetch the water. In the remaining households, it took 6 to 15 minutes or more on foot to fetch water. More than 80 percent of such households had to fetch water at least twice in a day (see Table 4-3). The females were the main duty-bearers for water collection, taking this responsibility 43 percent of the time (adult women, 35 percent, and girls under 15 years, 8 percent), while boys under 15 handled it 37 percent of the time and adult men handled it 17 percent of the time.

Findings were similar for the water supply used for other purposes (hand washing, bathing, washing clothes, etc.). Over 90 percent of the households had access within their house/compound, while 9 percent collected water from a point outside the house. In 86 percent of these cases, the water source was situated within a distance of 100 meters, which took five minutes or less to reach the majority (68 percent) of the time.

As with households collecting drinking water outside the house/compound, more than 80 percent of those collecting water for other purposes performed this exercise at least twice daily. In 49 percent of the cases, it was the females doing the work (adult women, 39 percent and girls under 15, 10 percent), followed by boys under 15 years of age, 34 percent and adult men, 14 percent (see Table 4-4).

Table 4-3 Number of Times Fetching Water per Day

Number of Times Water was Fetched per Day	For Drinking	For Other Purposes
	%	%
Less than once per day	9	9
Once	7	6
Twice	31	26
More than two times	51	56
No response	3	3
Total	100	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010. For drinking water, Number of respondents 103. For other water, Number of respondents: 89.

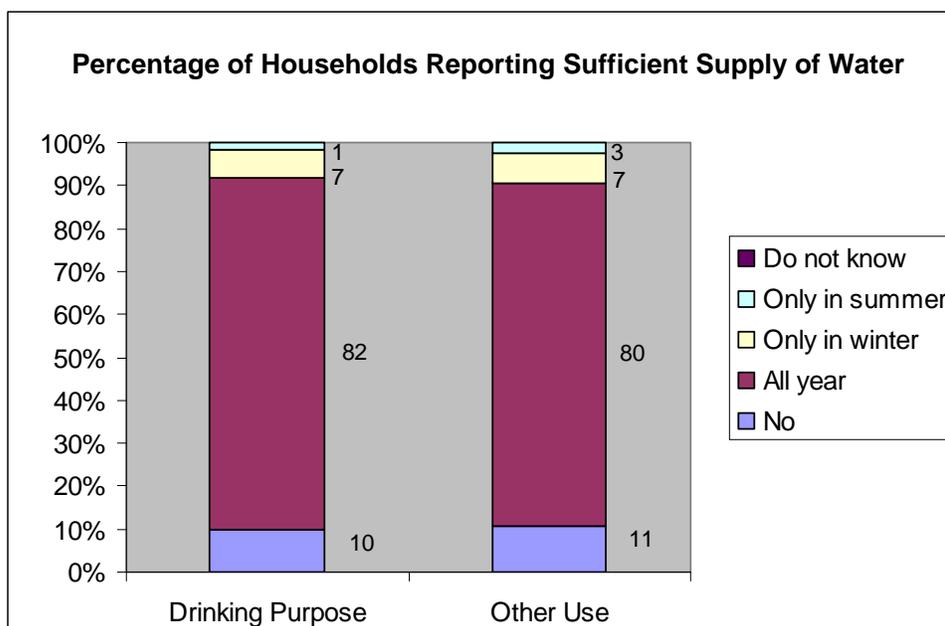
Table 4-4 Person Responsible for Fetching Water

Person	For Drinking	For Other Purposes
	%	%
Adult woman	35	39
Adult man	17	14
Female child (under 15 years old)	8	10
Male child (under 15 years old)	37	34
No response	3	3
Total	100	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; For drinking water, Number of respondents: 103. For other water, Number of respondents: 89.

The supply and quantity of water did not seem to be an issue, with the vast majority (82 percent) of households stating that their daily water supply satisfied their day-to-day needs for drinking and preparing foods all year round (see Figure 4-4). For 80 percent of households, water quantity was sufficient all year round to meet other needs (such as bathing and washing hands and clothes) as well.

Figure 4-4 Water Availability



FGD: Qualitative

Most FGD respondents reported that they had enough water, but this varied between UCs. Upon further questioning, respondents explained that having enough water meant that they had learned how to cope with the amount of water they had by storing water in their household, buying or

fetching water, or using tube wells to supplement the municipal supply. Complaints of water shortages were reported by those who couldn't afford to purchase tanks or who lived in areas where they were unfeasible (in kuccha [substandard] homes the roof cannot support the weight of the tanks or in multistory dwellings where their family didn't have roof access). All reported that when the electricity went out, they had less water, which was most frequent in summer months when longer power outages were more common. Some respondents reported problems in multistory dwellings where the pressure was insufficient to carry water to higher floors of the building. Washing clothes appeared to be one activity they stop or lessen if the water supply is limited.

QUOTES FROM FGDs:

"We have enough water for use."

"The water is supplied regularly but there is a break in water supply three times a day for an hour."

"The upper floor has serious issues with water quantity but the ground floors have enough. This is because some people have fixed electric pumps to suck water so that those who do not have a pump are facing problems with water quantity, especially the upper floor. This problem didn't exist before. It is becoming serious now with time since the population is growing and more connections are extended from the same [water] source."

"The water supply is reduced in June and July because the water table is low. The regular supply is interrupted due to load shedding [power outages] and breakdown of the water pump sometimes, but in general we don't have a shortage."

"Water is just enough for household use for the people who live on the ground floor. For the first floor [American 2nd floor], it has to be pumped by machine."

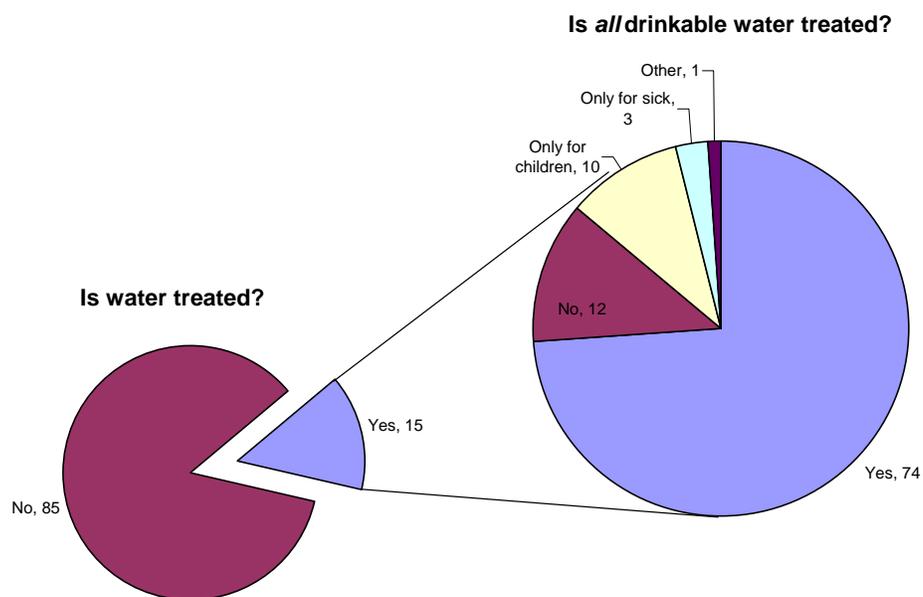
"The tube well is sometimes out of order for a day or two or sometimes up to 4 days, and then the children bring water from the neighborhood, from the mosque or other places far away—a 5-10 minute walk. This water is only for the most important use. For washing clothes and cleaning the house we wait until the tube well is repaired."

Treatment of Water

Survey: Quantitative

Treatment of drinking water is an area that received a very low level of affirmative responses. Only 15 percent of the households in Peshawar Town-I reported treating their drinking water (see Figure 4-5). However, only 74 percent of these treated *all* their drinking water, and 56 percent of these who treated water treated all their drinking water with proper methods such as boiling the water and using water purification tablets.

Figure 4-5: Treatment of Drinking Water



Overall, only 12 percent of the households report using evidence-based treatment methods that included boiling water and water purification tablets (see Table 4-5). The results suggest that even drinking water obtained from outside sources is not necessarily treated: approximately 8 percent of the households reported using drinking water from a public tap or pipe, and 7.5 percent reported using drinking water from a public tap or pipe *and* did not treat the water.

Table 4-5 Treatment by Primary Drinking Water

Distribution of Households by Source of Drinking Water (%)								
Water treatment methods	Piped (public) water (inside)	Tube well or borehole (inside)	Protected dug well (inside)	Public tap/pipe (outside)	Filtration plant (outside)	Bring from someone's house	Other	Total
Boil	9	1	0.1	0.3	0	0.2	0	11
Water purification tablets/ chlorine	0.3	0	0	0	0	0	0	0.3
Use ceramic/ other filters	0.5	0.1	0	0	0	0	0	0.5
Use cloth to sieve it	0.6	0.1	0	0	0	0.1	0	0.8
Let it stand and settle	0.1	0	0	0.1	0	0	0	0.2
Household filter	1	0.1	0	0	0	0	0	2
Not applicable	63	12	0.4	6	0.7	1	0.1	85
Total	75	14	0.5	8	0.7	2	0.1	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 1,000

Of the households that treated their drinking water, only 43 percent treated their drinking water safely by either boiling or using water purification tablets every day. Twenty-two percent treated it safely several times a day (see Table 4-6).

Table 4-6 Treatment Method by Frequency of Treatment

Distribution of Households by Frequency of Water Treatment (%)							
Primary Source of Drinking Water	Several times a day	Every day	At least twice a week	At least once a month	Less frequently	Other	Total
Boil	21	43	7	0.6	5	0.5	78
Water purification tablets/chlorine	0.5	0	0.8	0	0.9	0	2
Use ceramic/other filters	4	0	0	0	0	0	4
Use cloth to sieve it	2	2	0	0.6	0.9	0	5
Let it stand and settle	0.4	1	0	0	0	0	1
Household filter	8	0.7	0	0	0	2	10
Total	35	47	8	1	6	2	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 156

Note: Numbers in column may not add to total because of rounding.

FGD: Qualitative

The focus group discussions provided further insights into water treatment practices. FGD participants, very reasonably, generally felt that if water was tasteless, colorless (non-turbid) and had no smell then it was safe to drink. Some mentioned that they had heard of bacteria and knew that their water is likely contaminated, but they do not treat it because it is not convenient to do so. Few had heard of any household treatment methods besides boiling, which they said is too labor intensive and expensive to be practiced regularly. They further explained that boiled water is viewed as a medicine recommended by doctors to be given to small children or adults with diarrhea, but no one mentioned boiled water as a way to prevent diarrhea.

QUOTES FROM FGDs:

“The water is unsafe for drinking as it often contains worms too. Water at times is cloudy with bad odor and sediment. We strain it through muslin cloth.”

“All of us directly fill from the tap and put water in the refrigerator for drinking purposes.”

“We see broken pipes in the street and water being mixed with [water] from drainage pipe, so we know it’s not clean, but what to do?”

“We have always been drinking water directly from the tap and find it hard to boil for so many people.”

“I boil my drinking water in the summer only because I am sensitive about the health of my children. I do not boil water in the winter but only in the summer since children get sick in the summer and less in the winter.”

“When my child [refers to 6 month old she was holding] was sick, I boiled water for him. Otherwise, I don’t.”

“I used tablets sometime when I couldn’t boil for sick children. Boiling is expensive and hard.”

“We know very well that boiled water is free of bacteria, but when we feel recovered from disease [diarrhea or stomach upsets] we abandon the practice.”

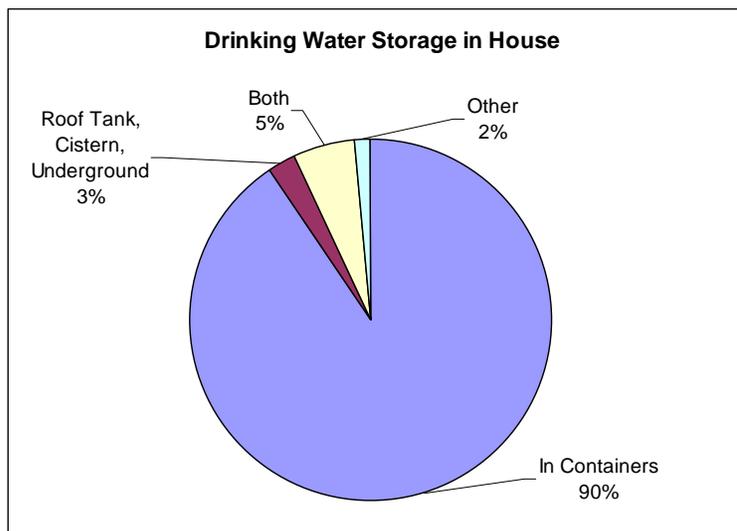
“As the doctor advised we use boiled water like medicine.”

Storage of Water

Survey: Quantitative

Almost all of the households in Peshwar Town-I stored water in their homes in some form for all purposes, including drinking and cooking. More than 90 percent stored drinking water in containers (Figure 4-6). Primarily these containers had capacities of 30 liters (14 percent), 45 liters (16 percent), 60 liters (11 percent), and 75 liters (8 percent). More than 5 percent of households stored water in underground tanks and almost 3 percent in roof tanks or cisterns.

Figure 4-6 Distribution of Households by Drinking Water Storage



Storing drinking water safely in containers involves several best practices that include:

- Keeping containers in a raised area above the floor;
- Covering containers with a hard cover; and
- Taking out water safely by titling a narrow-mouthed container, using a long-handled scoop, or using a container with a tap.

Of the 90 percent of the households that stored water in containers, only 59 percent reported storing all the containers in a raised area (Figure 4-7), 78 percent used hard covers on *all* drinking water containers (Table 4-7). Around 72 percent took out water safely by either tilting a narrow-mouthed container (2 percent), using a long-handled scoop (1 percent) or by using a container with a tap attached (69 percent).

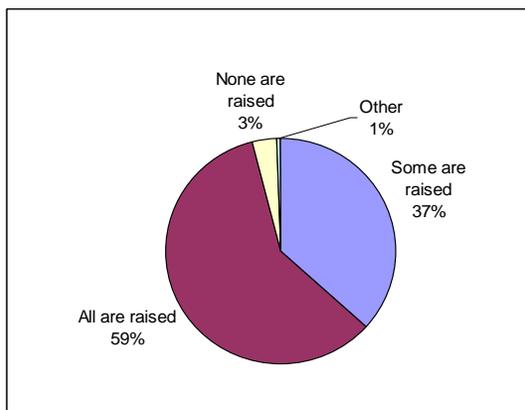
Table 4-7 Safe Storage of Drinking Water: Using hardcover for containers

Distribution of Household by Covered Containers (%)				
How Many Containers are Covered?	All covered with hard cover	Some covered with hard cover	All covered with a cloth/ paper	Total
	%	%	%	%
All	78	12	0	90
Some	2	8	0.4	10
Total	80	20	0.4	100

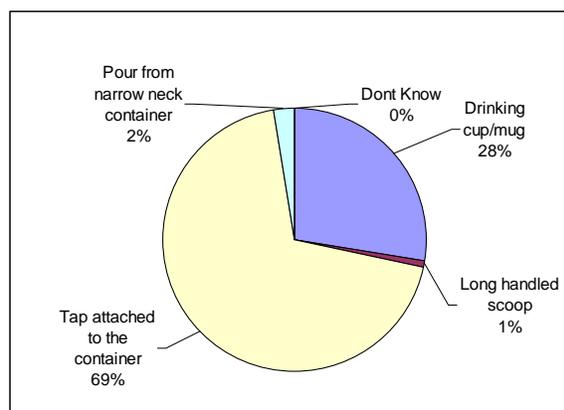
Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 944

Figure 4-7 Safe Storage of Drinking Water

Raised Containers

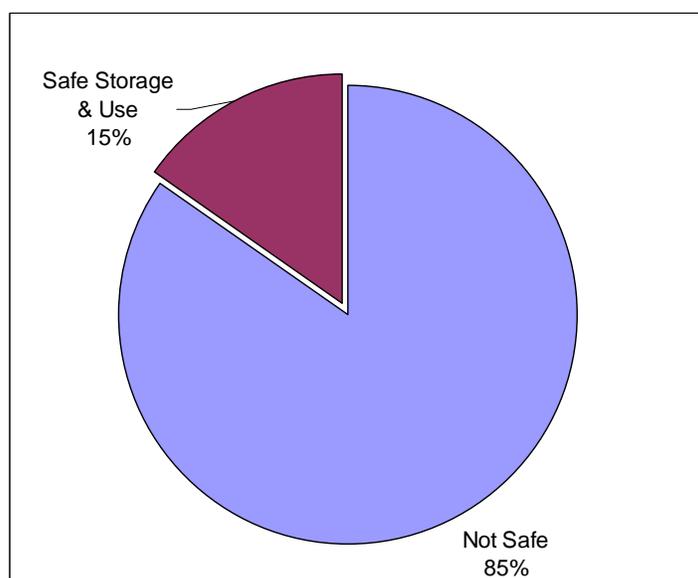


Safely Taking out Water



Overall, of the 90 percent of the households that stored drinking water in containers, only 15 percent (Figure 4-8) used all safe drinking water practices that included storing containers in a raised area, covering all containers with a hard cover, and taking out water correctly.

Figure 4-8 Percentage of Households with Safe Drinking Water Storage Practices



FGD: Qualitative

Many households reported storing water either in buckets, coolers, tubs or bottles. Those who could afford the expense reported having installed roof tanks for water storage.

QUOTES FROM FGDs:

“We have no proper system for water storage. Otherwise, the current supply of water is enough.”

“We have small kuccha [makeshift, non-concrete] houses, so we cannot install water tanks on the roof top; it would not support it.”

“People here are poor and cannot afford to install water tanks for storage.”

“The supply of water is three times a day; therefore we are storing water for all day use.”

“Water tanks were constructed together with our houses. Storage is useful because sometimes there is no electricity, and the water stops flowing.”

4.3. Perceptions Regarding Water Services

Water Supply Service

In 98 percent of the households, water sources were not managed by any other locally-organized committee at the household/community level other than the government.

Approximately 83 percent received water from a government pipe or tap. Forty percent of these households had a connection that was between one and five years old, while 33 percent had a connection that was more than 15 years old (Table 4-8).

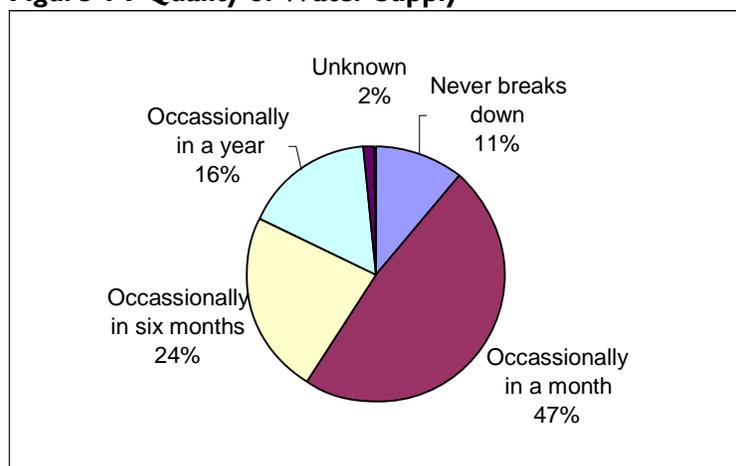
Table 4-8 Age of Connection to Public Water

Age of Connection to Public Water	%
1-5 year	40
6-10 years	18
11-15 years	7
More than 15 years	33
Unknown	2
Total	100

Note: Numbers in column may not add to total because of rounding.
Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents s: 858

Breakdowns in the regular supply of water were experienced occasionally in a given month by 47 percent of households and occasionally in a given six month period by 24 percent of the households (Figure 4-9).

Figure 4-9 Quality of Water Supply



According to 52 percent of the respondents, the water supply did not differ between winter and summer (see Table 4-9). For the 47 percent who reported that it did vary, the majority (almost 70 percent) normally received a total of 8 to 12 hours of water daily. In the summer, this water supply figure falls to 8 hours on average, while in the winter the total supply rises 10 hours on average.

Table 4-9 Seasonal Variation in Water Supply

Does Water Supply Differ from Winter to Summer?	%	Summer Water Supply (hours)		(Winter Water Supply (hours))	
		%		%	
Yes	47	8		10	
No	52	Supply either equal or respondent did not know.			
Don't Know	1.0				
No Response	0.1				
Total	100				

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 858; For summer and winter subpopulations, Number of respondents: 410

Although, the average supply of water was only 8 hours, with supply in summer slightly less than winter, as presented in Table 4-10, a large percentage of respondents agreed that water was sufficient for drinking and preparing food (82 percent), and other purposes (80 percent).

Table 4-10 Sufficiency of Water Quantity for Drinking and Other Purposes

	Sufficiency of Water Quantity	
	Drinking and Preparing Food	Other Purposes
	%	%
No	10	11
All year	82	80
Only in winter	7	7
Only in summer	1	3
Total	100	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010, Number of respondents: 1000

QUOTE FROM FGDs:

“The upper floor has serious issues with water quantity but the ground floors have enough. This is because some people have fixed electric pumps to suck water so that those who do not have a pump are facing problems with water quantity, especially the upper floor. This problem didn't exist before. It is becoming serious now with time since the population is growing, and more connections are extended from the same [water] source.”

4.4. Cost of Water Supply

Seventy-nine percent of those with city or government-provided water paid for it (see Table 4-11). Of those, 73 percent regarded the amount paid as reasonable. Less than 1 percent of the total number of respondents paid for water provided from sources other than the city or government.

Table 4-11 Cost of Water

Does Respondent Pay for Water?	%
No	21
Yes	79
<i>If yes, is the amount paid:</i>	
Reasonable	73
Too Much	22
Too Little	0.3
Don't Know	4
Yes Total	100
Total	100

*Note: Numbers in column may not add to total because of rounding.
Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of observations 858; For additional questions of those who pay, Number of Observations: 690.*

4.5. Quality of Water Supply

Almost 70 percent of those using government-supplied water described the quality of the water as “always good” (Figure 4-10). The households were also asked about the color, smell, and taste of water. The results suggest that 59 percent of the households find the quality of the water to be “always good” with respect to *all* aspects of water quality -- color, smell and taste.

Figure 4-10 Quality of Water

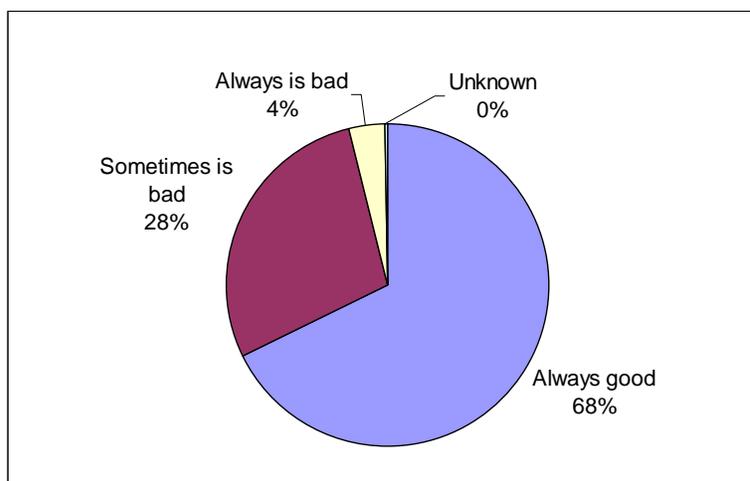


Table 4-12 presents the overall quality of the water against the households’ perception of the smell, taste and color of the supplied water. Of the households that reported that the quality was “always good”, only 59 percent of the households reported that each of the components of quality –smell, taste and color – were always good. This suggests that a household’s perceptions, and perhaps expectations about good quality water, are very different.

Table 4-12 Quality of Water by Smell, Color and Taste

How do you describe the quality of the water that you use from the source?	Water Quality Always Good by Smell, Taste and Color?		
	Yes	No	Total
	%	%	%
Always is good	9	59	68
Sometimes is bad	15	13	28
Always is bad	3	0.7	4
Don't know	0.2	0	0.2
Total	27	73	100

Note: Numbers in column may not add to total because of rounding.
Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010, Number of respondents: 858

It is interesting to consider the assessment of water quality by the household's perception of whether water that is clear and does not smell is safe to drink. Overall, only 13 percent of the households understood that water that is clear and does not smell is not necessarily safe to drink. Of these, only 6 percent of households described the quality of water to be always good (see Table 4-13).

Table 4-13 Perception About Quality by Assessment of Quality

How do you describe the quality of the water that you use from the source?	Do you agree or disagree with this statement: "Water that is clear and has no taste or smell is safe to drink"? (%)			
	Yes	No	Don't know	Total
	%	%	%	%
Always is good	61	6	0.8	68
Sometimes is bad	22	6	0.4	28
Always is bad	3	1	0	4
Don't know	0.2	0	0	0.2
Total	86	13	1	100

Note: Numbers in column may not add to total because of rounding.
Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 858

QUOTE FROM FGD:

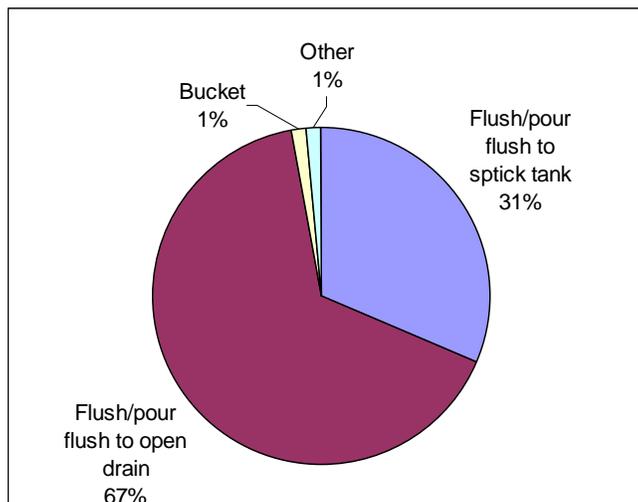
“Water without a smell, water that is colorless and tasteless is considered safe to drink.”

4.6. Sanitation and Sewage

Sanitation

Approximately 67 percent of the households in Peshawar Town-I used the flush/pour flush connected to an open drain system for their primary toilet facility. Around 31 percent used the flush/pour flush connected to a septic tank system (Figure 4-11).

Figure 4-11 Type of Toilet



The survey results indicate that sharing a latrine facility with other households is not common. Only 7 percent of respondents shared a latrine facility with households generally residing in the same compound, and of these respondents 31 percent shared the toilet with one other household, 29 percent with two other households, and 24 percent with three other households (Table 4-14).

Table 4-14 Sharing of Toilets

Does Respondent Share Toilet Facilities with Other Households?	%
No	94
Yes	7
<i>If yes, number of households facility is shared with:</i>	
One	31
Two	29
Three	24
Four	11
Five	4
Seven or More	2
Total	100
<i>Note: Numbers in column may not add to total because of rounding.</i>	
<i>Data source :PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 1000).</i>	

Overall, the respondents did not show any dissatisfaction about where the flush system released to as long as it was flushed (see Table 4-15).

Table 4-15 Type of Toilet by Level of Satisfaction

Type of Toilet	Are you satisfied with your toilet facilities?		
	(%)		
	Yes	No	Total
	%	%	%
Flush/pour flush to pipe sewer system	0.1	0	0.1
Flush/pour flush to septic tank	31	0.4	31
Flush/pour flush to pit latrine	0.4	0	0.4
Flush/pour flush to open drain	62	4	66
Flush/pour flush to unknown place	0.1	0.1	0.3
Pit latrine with slab	0	0.2	0.2
Pit latrine without slab	0.1	0.1	0.2
Bucket	0.4	0.8	1
Cover/bury feces	0	0.1	0.1
Other	0	0.1	0.1
Total	94	6	100

Note: Numbers in column may not add to total because of rounding.
 Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 1000

Sewage

Survey: Quantitative

When questioned about the type of sewage system present in their area, 97 percent of respondents stated an open-drain system. Twenty-six percent of the households had an open drain system and also experienced the problem of overflowing drains very often, and 25 percent faced it occasionally (Table 4-16).

Table 4-16 Type of Drainage by Sewage Problem

What type of sewerage system is present in your area?	Do you experience overflowing of drains in your area?						
	(%)						
	Yes, very often	Yes, occasionally	Yes, in rainy season	No	Problem in past, not now	Don't know	Total
	%	%	%	%	%	%	%
Open drain system	26	25	9	35	1	0.7	97
Closed drain system	0.1	0.1	0.2	0.9	0	0	1
Both	0	0	0.2	1	0.1	0	2
None	0.1	0	0	0	0	0.1	0.2
Don't know	0	0.1	0	0	0	0	0.1
Total	27	25	9	38	1	0.8	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 1000

FGD: Qualitative

A common issue raised during FGDs was the problem of overflowing open drains. Respondents voiced strong consensus that the overflow is largely linked to improper garbage disposal such as refuse dumping in drains by street cleaners and neighborhood residents. Respondents in all focus groups complained that overflowing drains present serious health risks and understood the connection between open sewers and sickness. They recounted situations where families living near such drains would get sick from the stench during power outages and the summer months when they were forced to open their windows for ventilation. One of their concerns was who could/would honestly take charge of and deal with the overflowing drains. Respondents voiced unwillingness to pay unless they saw a true improvement in services. Some respondents said that while they could not afford to pay more, they would volunteer their labor to help address this issue.

QUOTES FROM FGDs:

“Children play in this dirty water and get sick, but what should we do? It is hot and children need to play somewhere. Sometimes during monsoon season this canal becomes dangerous. Last year we lost a beautiful girl of 8 years in this canal.”

“Our drainage system in this neighborhood is totally unsatisfactory. We have a big canal in front of our house that was once a canal of clean water. But now we have all the sewerage, rainy water and latrine disposal going into this canal.”

“There are open drains all around that are the main cause of filth, bad odor and blockage. The children play in the filthy drains and get sick. This also breeds mosquitoes and flies.”

“The drainage system is not good. Streets and drains are higher than our compounds so all the dirty water comes back. During rains, the water from the street flows back into the houses. Latrine drainage also flows in the same drains. The drainages are not regularly cleaned. Sweepers get paid by the municipal [government] but still ask residents for payments.”

“Rubbish thrown in the street goes into the drains and blocks them.”

“There are open drains all over. People throw all sorts of things in the drains.”

“The gutter is open to the drains directly; it has a bad smell, and we face the problem when sewerage water comes in the street.”

“There are 40 staff [sweeper and/or garbage collectors] for 40 neighborhoods of [Peshawar] town I, but only 25 of them perform their duty. Also, I would like to inform you that they clean the street and neighborhood and put the waste into the drain. We are also responsible for this situation because we also drop all the waste material into the drain which stops the flow of water.”

“Our main drain hasn’t been cleaned for 15 years. Therefore it is full of waste material and water flows outside the drain.”

4.7. Hygiene Practices

Survey: Quantitative

Almost all the households had soap in the house and all respondents reported having used soap of some kind that day or the day before, mainly for washing hands, washing utensils, washing/bathing, and washing clothes, among other purposes. A large majority of the respondents reported washing their own hands (79 percent), but a very small fraction reported washing their children’s hands (Table 4-17).

Table 4-17: Use of Soap

Distribution of Households by Use of Soap	(%)
No response	0.1
Washing my hands	79
Washing children's hands	1
Washing cloths	13
Bathing	4
Washing utensils	2
Washing face	0.2
Other	0.1
Not applicable	1
Total	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Strata: 25; Observations: 1000; PSUs: 50; Population size: 81,857.

Overall, 79 percent of the respondents reported washing their hands more than three times a day. This percentage increased more or less as the level of education of the respondent increased as well (Table 4-18).

Table 4-18 Hand Washing - by Education of Respondent:

Distribution of Households by Frequency of Hand Washing (%)						
What is the highest level of education you have achieved?	Once a day	Twice a day	Three times a day	More than three times a day	Only when hands are dirty	Total
	%	%	%	%	%	%
Never attended school	0.1	0.3	10	76	14	100
Less than primary	0	0	6	68	26	100
Completed primary	1	0.9	7	75	16	100
Completed middle	0	1	1	92	6	100
Matric	1	0.9	2	82	14	100
Intermediate	0	0	2	97	1	100
Graduation	0	0	0	98	2	100
Doctor/Engineer	0	0	0	100	0	100
Post-graduate	0	0	0	90	10	100
Don't know	0	0	0	100	0	100
Total	0.2	0.4	8	79	13	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 999

Approximately 36 percent reported washing hands after cleaning a child's bottom or stool, 17 percent before preparing food, 13 percent before eating food, 9 percent after defecating and only 1 percent before feeding the child. Overall, 76 percent of the households reported washing hands at critical times (Table 4-19). Hand washing can be over-reported, and therefore, it is useful to compare the location of hand washing with the observed location of the soap since this can provide some indication of actual hand washing behavior. Forty-three percent of the households had a provision for washing hands inside the bathroom, 25 percent of the households had a hand washing area located near the toilet, and 31 percent had it in the yard (Table 4-20).

Table 4-19 Household Hand Washing Practices

Distribution of Household by Hand Washing Practice	%
No response	0.6
After washing child's bottom	25
After washing child stool	12
Before preparing food	17
Before feeding child	1
Before eating	13
After defecating	9
Before praying (wazoo)	3
Other	0.4
No applicable	20
Total	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 999

Of the respondents that reported washing hands inside the bathroom, 97 percent of them had soap in the bathroom. Of the respondents that reported washing hands near a bathroom, only 76 percent had a soap near the bathroom, and 79 percent of households that reported washing hands in or near the kitchen had soap in that location (Table 4-20).

Table 4-20 Location of Hand Washing by Observed Location of Soap

	Presence of soap at location (%)			
	Inside Bathroom	Near bathroom	Inside/near kitchen	In yard
	%	%	%	%
Overall	43	25	6	31
Location of hand-washing:				
	28	42	0	58
Inside bathroom	97	9	8	29
Near bathroom	3	76	1	2
Inside/near kitchen	6	0	79	5
In yard	0	0	0	88
No specific place	4	4	0	8

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents 952.

It is also interesting to consider if the respondents were consistent in their answers regarding the availability of water for hand washing. Of the households which reported that availability of water

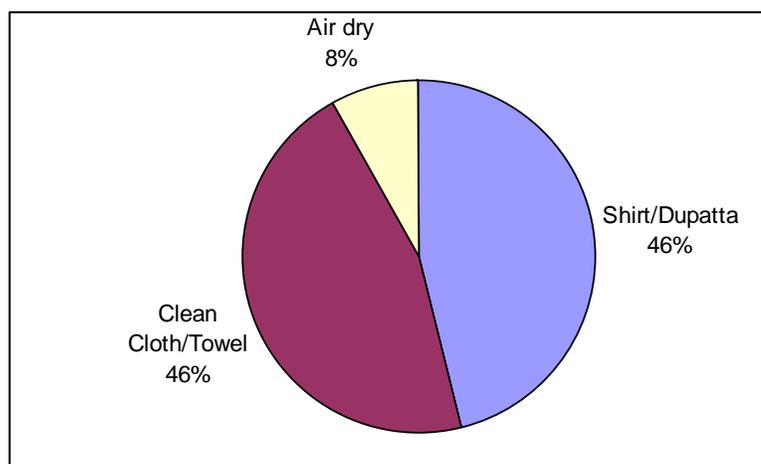
constrains their ability to wash hands, 71 percent reported having sufficient water all year long with the remaining 29 percent reporting shortages either all year long or seasonally (Table 4-21).

Table 4-21 Sufficiency of Water in Households

Water quantity is sufficient for other purposes (%)										
Does lack of water affect your hand-washing behavior in the household?	No		All year		Only in winter		Only in summer		Total	
	%		%		%		%		%	
Yes	17		71		7		5		100	
No	7		85		7		1		100	
No response	100		0		0		0		100	
Total	11		80		7		3		100	

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of strata: 25; Number of PSUs: 50; Population size: 81,784; Number of respondents: 999

Figure 4-12 Different Practices of Drying Hands after Washing



Responding to the question about how they dry their hands after washing, 46 percent of the households reported that they dried their hands with their shirt/dupatta, while an equal percentage claimed to use a clean towel or cloth to dry their hands (see Figure 4-12). Eight percent stated that they air-dried their hands. As shown in Table 4-22 below, when the responses to this question are analyzed according to the education levels of the respondents, there is a positive correlation between increased levels of education and increased use of clean towels or cloths for drying hands.

Table 4-22 Drying of Hands by Education of Respondent

Respondent's Level of Education	Use of shirt/dupatta	Use a clean towel/cloth	Nothing
	%	%	%
Never attended school	54	38	8
Less than Primary	43	43	14
Completed Primary	33	61	7
Complete Middle	37	56	7
Matric (Secondary- 10 years schooling)	30	68	3
Intermediate (Higher secondary – 12 years of schooling)	28	61	11
Graduation	26	64	10
Doctor/Engineer	0	100	0
Post Graduate	11	68	21

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010

FGD: Qualitative

During the FGDs, respondents reported washing their hands for 3 reasons:

1. When they were perceived as dirty (from hair oil, roti kneading, dirty work, or when they looked and felt dirty) and they wanted to look cleaner;
2. For religious purposes before prayer [wazoo];
3. After defecating.

The majority admitted that they don't practice hand washing with soap and instead use only water. Not washing with soap was sometimes due to unavailability of soap outside their homes. Many knew washing with soap was recommended as they had heard about it on TV and had some knowledge of germs. It wasn't yet an established habit with the majority of FGD respondents. Many said, "I wash but without soap."

QUOTES FROM FGDs:

"Honestly speaking, we wash hands and face with soap in the morning when we wake up and then the rest of the day we just use water for hand washing."

"These days, people are aware and even small children are conscious about washing hands. Children these days are aware because of TV. They take baths several times a day and use soap more than the adults would."

"Our religion advises us to wash our hands before eating and offering prayer. In our society there is no trend to wash hands with soap. If there is no soap available near the sink for washing hands, I never demand it. I always advise my family members to wash hands before eating meals, but in my absence they never wash their hands. Only to look better do people wash their hands and mouth [i.e., remove visible dirt; look cleaner]. There is no concept to use soap to remove bacteria and germs."

4.8. Knowledge of and Attitude towards Safe Drinking Water

Current Practices and Knowledge towards Safe Drinking Water

More than 86 percent of the households agreed with the statement that “Water that is clear and has no smell is safe to drink” (see Table 4-23).

Table 4-23 Perception About Quality By Education Level

Do you agree or disagree with this statement: "Water that is clear and has no smell is safe to drink."				
	Yes	No	Don't know	Total
What is the highest level of education you have achieved?	%	%	%	%
Never attended school	89	10	1	100
Less than primary	96	4	0	100
Completed primary	86	13	0.9	100
Completed middle	79	19	2	100
Matric	93	7	0	100
Intermediate	72	27	1	100
Graduation	68	29	2	100
Doctor/Engineer	0	100	0	100
Post-graduate	59	41	0	100
Don't know	0	100	0	100
Total	86	13	1	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 999.

Overall, as many as 86 percent of the mothers/female heads of household agreed with the statement that water that is clear and does not smell is safe to drink. If we take into account the education of the respondents, the trend suggests that a smaller percentage of women had this misperception. For example, among the women that had a post graduate degree, only 56 percent of them had this misperception. Even though the percentage is high, it is significantly less than 86 percent.

Perceptions about Diarrhea

Loose motion or diarrhea ranked as the most common major disease among children under five years of age. Children under five had suffered from diarrhea in the past two weeks among 39 percent of households (Table 4-24). Of these, 40 percent had suffered one episode of diarrhea and an equal number (around 40 percent) had suffered two episodes, while approximately 15 percent had suffered three or more episodes (Table 4-24).

Table 4-24 Diarrhea Prevalence

Household with Children that had Disease of Loose Motion in Last Two Weeks	%
Yes	39
<i>If yes, number of episodes</i>	
1 episode	41
2 episodes	42
3 or more episodes	15
Don't Know	3
No	61
Total	100
<i>Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 655.</i>	

Ninety percent of the respondents agreed that unclean drinking water can be related to diarrhea. The next most commonly perceived cause of diarrhea was bad food. Seventy-four percent of respondents also agreed that not washing hands can lead to diarrhea. Sixty percent of respondents felt that a lack of toilet facilities could also be related to diarrhea, and surprisingly, 63 percent of the respondents were aware of the fact that contamination from an infant child's stool could cause disease (Table 4-25).

Table 4-25 Beliefs about Causes of Diarrhea

Belief about Diarrhea	Agree
	%
Unclean drinking water can be related to disease of loose motion	90
Not washing hands can be related to disease of loose motion	74
Lack of toilet facilities can be related to disease of loose motion	60
Contamination from infant's stool causes disease	63
<i>Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 999.</i>	

Table 4-26 below illustrates the relationship between the responses to the questions above and the education levels of respondents. It is interesting to see the positive correlation between increased education levels and increased levels of awareness about the various causes of diarrhea among children.

Table 4-26 Perception of Causes of Diarrhea

Education of Respondents	Unclean drinking water related to loose motion				Total
	Yes	No	Maybe	Don't Know	
	%	%	%	%	
Never Attended School	88	2	8	2	100
Less than Primary	74	0	26	0	100
Completed Primary	94	3	3	0	100
Completed Middle	95	1	2	2	100
Matric	95	0	5	0	100
Intermediate	97	0	3	0	100
Graduation	98	2	0	0	100
Doctor/Engineer	100	0	0	0	100
Education of Respondents	Not washing hands related to loose motion				Total
	Yes	No	Maybe	Don't Know	
	%	%	%	%	
Never Attended School	69	3	26	3	100
Less than Primary	81	0	19	0	100
Completed Primary	80	3	18	0	100
Completed Middle	89	2	7	2	100
Matric	88	0	11	1	100
Intermediate	84	2	14	0	100
Graduation	76	2	22	0	100
Doctor/Engineer	100	0	0	0	100
Education of Respondents	Lack of toilet facilities related to loose motion				Total
	Yes	No	Maybe	Don't Know	
	%	%	%	%	
Never Attended School	53	5	34	8	100
Less than Primary	59	11	26	4	100
Completed Primary	74	7	15	4	100
Completed Middle	74	4	16	3	100
Matric	77	2	21	1	100
Intermediate	69	9	21	1	100
Graduation	71	2	27	0	100
Doctor/Engineer	100	0	0	0	100

Table 4-26 Perception of Causes of Diarrhea

Education of Respondents	In your opinion does contamination from infant's child stool cause disease				Total
	Yes	No	Maybe	Don't Know	
	%	%	%	%	%
Never Attended School	58	15	19	8	100
Less than Primary	48	22	23	7	100
Completed Primary	75	6	16	3	100
Completed Middle	64	13	18	6	100
Matric	82	6	8	4	100
Intermediate	78	9	10	3	100
Graduation	81	9	11	0	100
Doctor/Engineer	100	0	0	0	100

Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010; Number of respondents: 999

Table 4-27 below presents the percentage of households that reported 3 or more diarrhea incidences by the various hygiene and sanitation practices. These higher incidents of diarrhea were smaller for the households that treated water by 3.5 percent, and among the households that stored and used the water safely, the incidence was lower by 2 percent. Among the households that reported that the amount of water was not sufficient for other needs, other than drinking, the higher incidents of diarrhea were greater by 3 percent, and this difference was statistically significant. However, contrary to expectations, the higher incidents of diarrhea were greater among households that reported better hand washing practices, except hand washing before preparing food. This again highlights the possibility that self-reported information on hand washing practices may have measurement error.

Table 4-27 Three or More Reported Incidences of Diarrhea by Hygiene and Sanitation Conditions

Sanitation Behavior	Incidence of Diarrhea (percent)		
	Yes	No	Difference (T-Stat)
Safe Disposal of Waste	7 percent	7 percent	-0.3 percent (-0.1)
Perceives clear water to be safe	7 percent	6 percent	1 percent (0.5)
Safe Storage and Use of Water	5 percent	7 percent	-2 percent (-0.8)
Safe Treatment of Water	4 percent	7 percent	-4 percent (-1.3)
Sufficient Amount of Water	6 percent	9 percent	-3 percent* (1.6)
Wash Hands after Washing Child's Bottom and/or Stool	8 percent	6 percent	2 percent (-0.8)
Wash Hands after Defecating	9 percent	7 percent	2 percent (-0.5)
Wash Hands before Feeding Child	8 percent	7 percent	1 percent (-0.2)
Wash Hands before Preparing Food	6 percent	7 percent	-2 percent (-0.5)

*Notes: * Significant at 10% level.*
Data source: PSDW-HPP KAP Peshawar Town-I Survey, 2010. Number of respondents: 655.

FGD: Qualitative

While FGDs did not ask specific questions about diarrhea, many people linked turbid water with diarrhea. If water was clear and tasteless, people generally felt it did not cause diarrhea.

QUOTES FROM FGDs:

[When asked the reason for diarrhea/stomach problems]: *“Because of eating dried roti or drinking turbid water. In summer this problem is more than winter.”*

5. DISCUSSION AND CONCLUSIONS

Eighty percent of the respondents reported that the water supply was sufficient for drinking and other purposes, but only 11 percent of the respondents experienced no disruptions in water supply. The results of the survey suggest that the respondents, on average, had eight hours of water supply. To mitigate the impact of water shortages due to load shedding or when the tube wells are out of order, 90 percent of the households store water. This suggests that the expectations about water supply are generally low, and the households have developed coping mechanisms to respond to the poor water supply. Such figures also suggest that investment in water supply can remove the current constraints the households face.

As many as 86 percent of the respondents agreed with the statement that water, which is clear and does not smell, is safe to drink. Therefore, it is not surprising that 68 percent of the respondents believed their drinking water supply is “always good”. In fact, of the 14 percent of the households that had a better understanding of water quality, only 6 percent agreed that their water was always good. As a result, only 15 percent of the households treat their water. Of the households that treat their water, only 74 percent treat *all* their drinking water. Overall, only 12 percent treat their water using proper treatment methods such as boiling or using chlorine-based packets. Although the misperception about what constitutes clean water is lower among the educated, it is still quite large in absolute terms: as many as 60 percent of respondents with a graduate degree believe that water that is clear and does not smell is safe to drink. This perception is a common misunderstanding, which reinforces the need for future programs to focus on water testing and public dissemination of results. Given the broad understanding that contaminated water can cause diarrhea, the sharing of results may increase the demand for water treatment and an increase in treatment of water at home.

Table 4.12 presented the overall quality of the water against the households’ perception of the smell, taste and color of the supplied water. Of the households that reported that the quality was “always good”, only 59 percent of the households reported that each of the components of quality –smell, taste and color – were always good. This suggests that a household’s perceptions, and perhaps expectations about good quality water, are very different. This may be driven by the general expectation that tap water is of good quality. Future FGDs can explore the reasons for this variance in expectation and perception, and whether the perception of water quality guides the decisions to treat or not treat water, or if it is based on a more objective assessment of its quality.

The survey found that 79 percent of the respondents wash their hands more than three times a day and 90 percent of the households reported having soap. However, the percentages of hand washing for specific critical times were lower: 36 percent after cleaning a child’s bottom or stool, 17 percent before preparing food, 13 percent before eating food, 9 percent after defecating and only 1 percent before feeding the child. In addition, despite the fact that 63 percent of respondents were aware that contamination from an infant child’s stool could cause diarrhea, the practice of washing hands after cleaning the child’s bottom or stool is low. Overall, 74 percent of the respondents were aware that not washing hands can cause diarrhea. However, the incidence of hand washing at critical times was very low. In general, the frequency of hand washing is greater among respondents with more

education, the perception about clean water is also better among educated, as is the understanding about causes of diarrhea. However, these differences are not very sharp across respondents with higher education and those with little or no education. Therefore, future BCC campaigns need to better understand the barriers to hand washing behavior, particularly in the case of households that are aware of the benefits of hand washing.

Forty-three percent of the households had a provision for washing hands inside the bathroom; 25 percent of the households had a hand washing area located near the toilet; and 31 percent had it in the yard (Table 4.20). Of the respondents that reported washing hands inside the bathroom, 97 percent of them had soap in the bathroom. Of the respondents that reported washing hands near a bathroom, only 76 percent had soap near the bathroom. Seventy-nine percent of households that reported washing hands in or near the kitchen had soap in that location (Table 4.20). This confirms the general understanding that hand washing is over reported, and as suggested by the FGD, perhaps the handwashing responses relate to washing with water and not soap.

More than 50 percent of respondents indicated that they experience overflowing of sewage drains and perceived this as a major problem, although the results suggest that the incidence of diarrhea was not greater among respondents who reported overflowing sewage drains to be a major problem. Diarrhea incidence was slightly smaller among households that treated their water and safely stored and used water, as compared to those that did not. Table 4.26 showed the relationship between high incidences of diarrhea by the hygiene and sanitation factors. The table showed those households with children having more than three episodes of diarrhea within the last two weeks previous to the survey. In addition, of households that reported that the amount of water was not sufficient for other needs, other than drinking, the high incidences of diarrhea were greater. The survey also found that the overall diarrhea prevalence for Peshawar Town -I was 39%, which is higher than the 25% reported for KPK by DHS (2006-2007). One factor for this higher number could be that the survey was implemented during the rainy season when it has been demonstrated in Pakistan that higher incidences of diarrhea can occur during this period.

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APPENDIX 1 SURVEY AND FGD SAMPLING METHODOLOGY

The survey consisted of both a quantitative and qualitative portion, both of which involved primary data collection in Peshawar.

For the quantitative survey, primary data was collected from 1,000 households through in-depth interviews with an adult woman in the household using a questionnaire. For the qualitative survey, seven focus groups discussions were held between August 25 and September 16, 2010, with 63 participants. Three FGDs were held with 28 men and four with 35 women. Discussions continued with each group until saturation was reached (i.e. discussions yielded no new information).

The implementation of the surveys comprised the following four steps:

- Development of the sampling methodology
- Development of the survey instrument
- Data collection
- Data management and report writing

Development of the Sampling Methodology

Survey: Quantitative

The *universe* for the survey included all urban areas in Peshawar Town-I. The town is divided into 25 Union Councils (UCs).

The *target group* for the survey was female heads of household since women were more likely to be caretakers of children and responsible for hygiene practices related to them. A sample of 1,000 households was selected from Town-I at random, ensuring representation from all 25 UCs.

To make sample selection efficient and effective, and to minimize sampling and non-sampling errors, the survey adopted the Federal Bureau of Statistics (FBS) sampling frame. According to the FBS urban frame, the urban areas of Peshawar City have been divided into 653 enumeration blocks (EBs). Each enumeration block, comprising 200-250 households, is identifiable by its map and boundary descriptions. Out of the total number of EBs in Peshawar, 305 EBs fall in the 25 UCs of Town-I Peshawar.

Sample Size and Allocation

The PSDW-HPP team used a two-stage stratified random sampling method to select the sample for this survey. Although the FBS has a Peshawar City urban area sampling frame, a frame for Town-I was not readily available. The first exercise was carried out on the sampling frame with the help of maps and the local administration. The team identified and listed EBs in the Peshawar Town-I area according to UC. This list of blocks was treated as the universe for the sample for the study.

Primary sampling units (PSUs). EBs were considered PSUs. At the first stage, a sample of two EBs from each UC was selected with probability proportional to number of households in the EB with respect to the total households in the UC. . A total sample of 50 PSUs was selected in the first stage.

Secondary sampling units. Households were considered secondary sampling units. To ensure the statistical validity of the HH sample selection, PSDW-HPP carried out a complete enumeration of physical structures and households in the sample EBs. From the resulting enumeration lists of each EB, 20 households were selected from each by applying a systematic sampling method ($k = N/n$; k is the sampling interval, N is the total number of households in the EB, and n is the secondary sample size of 20).

Establishing sampling weights were a key step for both the sampling plan and the analysis. Since a fixed sample of two EBs and 40 households was randomly selected from each UC to normalize the survey

results, sampling weights were generated for each enumeration block based on the total number of households identified during the enumeration described earlier. The overall weight is the product of the inverse probability of selection for the first stage and the second stage. Where, the probability of selection of j^{th} EB in i^{th} stratum (UC), for the first stage, P_{ji} , is:

$$P_{ji} = n_j \times h_{ji} / H_j$$

where n_j is the number of sampling EBs covered in the j^{th} stratum (UC), h_j is the number of households in the i^{th} EB of the j^{th} UC, and H_j is the number of households in the j^{th} UC.

The probability of selection in the second stage, Q_{ij} , is:

$$Q_{ij} = m_{ij} / M_{ij} = 20 / M_{ij}$$

where m_{ij} is the total number of sampled households (20) in i^{th} EB of j^{th} UC, and M_{ij} is the total number of listed households in i^{th} EB of j^{th} UC.

Therefore, the overall sampling weight is:

$$W_{ij} = 1 / P_{ji} \times 1 / Q_{ij}$$

A list of the sample UCs are given below in Table A-I:

Table A-I. Sample UCs

s.#	UC	EB Code/Village Name	Income Group 1= low, 2=middle, 3=high	Total Number of HHs in the EB	Number of Sampled HHs in the EB	Overall weight
1	Akhunabad	503011526	2	285	20	86.0
		503011527	1	239	20	94.6
2	Andher Shehr	503011403	2	94	20	114.5
		503011407	1	137	20	39.3
3	Asia	503010205	2	194	20	103.1
		503010206	2	199	20	96.0
4	Bhanamari	503010210	2	225	20	94.0
		503010223	2	297	20	65.8
5	Faqirabad	503011616	1	239	20	69.6
		503011618	2	188	20	53.3
6	Gul Bahar	503012420	2	252	20	64.9
		503012443	2	208	20	67.9
7	Gunj	503011009	2	318	20	61.4
		503011545	2	185	20	76.4
8	Jahangira Pura	503010606	2	133	20	62.6
		503010607	2	198	20	53.7
9	Kakshal-i	503010215	2	322	20	66.2
		503010216	2	269	20	74.1
10	Kakshal-ii	503010512	2	237	20	67.6
		503010513	2	240	20	67.6
11	Karim Pura	503011301	2	71	20	46.6
		503011302	2	237	20	56.4
12	Lohari Gate	503011101	2	247	20	57.7
		503011109	2	252	20	60.9

s.#	UC	EB Code/Village Name	Income Group 1= low, 2=middle, 3=high	Total Number of HHs in the EB	Number of Sampled HHs in the EB	Overall weight
13	Shaheen Muslim -i	503012401	2	184	20	78.7
		503012402	2	202	20	69.0
14	Shaheen Muslim -ii	503012410	2	195	20	71.0
		503012412	2	254	20	108.7
15	Shahi Bagh	503011503	2	325	20	49.3
		503011504	2	198	20	65.1
16	Sheikh Junaid abad	503011520	1	352	20	75.8
		503011524	2	209	20	95.2
17	Sikandrabad	503011602	2	117	20	81.1
		503011603	2	246	20	73.5
18	Wazirbgh	503011535	2	245	20	98.7
		503011538	2	346	20	93.9
19	Yaka Toot- i	503010601	2	183	20	57.7
		503010602	1	263	20	58.2
20	Yaka Toot- ii	503010808	2	166	20	99.2
		503011530	2	337	20	98.8
21	Yaka Toot-iii	503011531	2	237	20	77.9
		503011534	2	260	20	83.7
22	Khalsa-i	503012603	2	191	20	295.6
		503012643	2	228	20	212.7
23	Khalsa-ii	503012661	2	158	20	50.3
		503012680	2	404	20	51.9
24	Mahal Teri-i	503012658	2	203	20	54.4
		503012674	2	202	20	71.7
25	Mahal Teri-ii	503012626	2	195	20	110.6
		503012631	2	131	20	110.0

FGD: Qualitative

The team selected locations (within areas sampled for the quantitative survey) representing a mix of socioeconomic status and areas with reported good and bad service delivery with more of a focus on low- and lower-middle income households. Initial groups were held with men and women perceived to be community leaders. Due to security concerns and the timing of the FGDs (most were held during Ramadan when schools were closed), groups were not held as originally planned with religious leaders or teachers.

A-1.1. Development of Survey Instrument

Survey: Quantitative

The survey instrument (questionnaire) was translated from English into the Urdu language. It was then pre-tested in the field by the survey team, the results of which were used to adjust and finalize the questionnaire.

To maintain consistency in the data collection process, PSDW-HPP developed survey guidelines for the field teams. Specific instructions, dealing mainly with sample selection methods and ways to handle interviews, were provided to enumerators and supervisors to ensure that all questionnaires were filled in correctly and completely. The most significant instruction to the field staff was “*Do not leave any question un-checked. All questions must be asked (unless asked to skip) and cross-out (“x”) the not applicable questions. All answers should be legible – never overwrite any response – cross and rewrite the answer above the crossed answer.*”

The questionnaire consisted of six sections, each containing questions pertaining to a particular indicator, as outlined in section 1.2.1. For details, see Appendix 2.

Section A: Drinking Water Access, Storage, and Treatment—questions focusing on access to water, usage, storage, and treatment practices

Section B: Water Service and Quality—questions aimed at collecting data on water supply, costs, perceptions of quality, and general levels of awareness about what “safe” water is

Section C: Sanitation—questions about the sanitation facilities available and used, current practices, and any problems associated with the sanitation facilities

Section D: Hygiene—questions related to current hygiene levels being observed and practices adopted

Section E: Demographic Characteristics of Household Members—questions designed to collect current demographic statistics about each household (such as education levels and economic status)

Section F: Perceptions About Diarrhea—questions to elicit information on current perceptions about children’s diseases, especially diarrhea, and on awareness levels about the main causes of diarrhea, especially hygiene

FGD: Qualitative

Question topics for the FGDs were developed following the completion of the quantitative survey and review of the preliminary results. Specific questions were developed for the FGD guide through an iterative process between a USAID consultant with expertise in WATSAN and PSDW-HPP.

A-1.2. Data Collection

Training the Survey Team

Survey: Quantitative

Three teams of field researchers with experience carrying out similar tasks were deployed for data collection. Each team included three female field enumerators and one male supervisor. The supervisors were responsible for ensuring sample selection as per design and data quality including completeness of the questionnaire and consistency in the data. On June 16, 2010, PSDW-HPP provided comprehensive two-day training to the field staff in Peshawar. On the first day, after

participant orientation, the survey instrument was explained in detail to the field teams and questions and terminologies used in the questionnaire, interviewing techniques, proper recording of responses and filling of the questionnaire were all reviewed.

On the second day, the sampling methodology was explained in detail and the enumerators carried out field testing/practice of the questionnaires in the community. The PSDW-HPP team then conducted a field practice review to ensure that each field enumerator and team supervisor fully understood the questionnaire, the sampling methodology, and the field survey process.

At the end of the field staff training program, the three field teams were provided with their sample areas and household lists.

FGD: Qualitative

Project staff served as the moderators and recorders for the qualitative study, all of whom were content experts. The moderators were trained by the PSDW-HPP's Senior Technical Advisor using a manual developed for this purpose. The moderators all had previous experience conducting FGDs. In addition to the moderators, NGO staff known to the project, who either worked or lived in Peshawar Town I, attended the training and later assisted with logistical arrangements. All moderators and recorders were trilingual in Urdu and English and either Hindko or Pashto. They used a FGD guide with prompts to conduct the discussions.

Survey Implementation and Data Collection

Survey: Quantitative

The household survey commenced on June 19 and was completed on July 10, 2010. On average, each team completed about 20 interviews on a daily basis under the supervision of their respective supervisors (an average of 7 interviews per enumerator per day). The survey was completed in 21 days. The Director of Monitoring & Evaluation, PSDW-HPP, provided vigilant supervision from the very first day to ensure that household selection was carried out according to plan and to thoroughly review one to two completed questionnaires by each enumerator to check the quality of data recording. Following the review, on-the-spot feedback was provided to each enumerator and supervisor. At the end of the first day's field work, a review of the first day was carried out by the project's senior staff to ensure that each enumerator and supervisor had correctly adopted the survey methodology and that the enumerators had fully understood the questionnaire. All supervisors and enumerators attended the review meeting.

FGD: Qualitative

Seven FGDs were conducted between August 25 and September 16, 2010 with 63 participants. All introductions of moderators and recorders were made by NGO staff who arranged the venues (all but one were done in private homes) and personally invited participants to the group. After consents were obtained, basic demographic information was completed for all participants and, with the permission of the groups, all FGD sessions were recorded. FGDs lasted between 1 hr 40 min to 2 hr 30 min. At the end of each group, token gifts¹ were given to participants.

¹ Iftar packages consisted of dates, salty snacks and powdered fruit drink mixes, foods commonly eaten to end the Ramadan fast. Total cost <3 USD.

A-1.3. Data Management and Report Writing

Survey: Quantitative

The data was entered into Statistical Package for Social Science (SPSS) software, and weights were applied to the data to run the data analysis and to develop the reports. Each questionnaire was checked the same day by supervisors. Questionnaires were sent to the office regularly after completion of blocks and checked by supervisors. Sample questionnaires were checked at the head office before data entry by experienced staff.

FGD: Qualitative

Program staff debriefed with NGO staff after each focus group. Once they returned to the office, they debriefed with the PSDW-HPP Senior Technical Advisor, transcribed the FDG recordings and their field notes, and translated them into English. Final English transcripts were reviewed by the Senior Technical Advisor, who made separate files for each of the five topic areas, reviewed and analyzed responses and arranged them into themes. Once themes were developed they were summarized and reviewed with moderators/recorders.

A-1.4. Quality Assurance

The following three major steps were taken to ensure the quality assurance;

1. Firstly, FBS was involved to ensure that the sampling plan was implemented correctly.
2. Secondly, as described above in section 2.3.2, SEBCON and PSDW-HPP ensured the quality of the field survey by regularly monitoring field visits, screening completed questionnaires, and carrying out progress updates. The Director of Monitoring & Evaluation, PSDW-HPP, also made field support visits to strengthen the field work.
3. Special attention was given to data quality. A data analyst from SEBCON thoroughly supervised data entry/cleaning throughout the survey period. The completed questionnaires were screened before data entry to ensure that the sample had been covered according to targets and that the questionnaires were completely filled and verified by the supervisors. Validation of information was also carried out after data entry and cleaning, using appropriate statistical tests (such as range tests) to ensure the accuracy of the data.

**APPENDIX 2
SURVEY INSTRUMENT FOR QUANTITATIVE DATA COLLECTION**

SECTION A: DRINKING WATER ACCESS, STORAGE AND TREATMENT

#	Questions	Code	Skip To:
A1	Please tell me primary and secondary source from where you get most of drinking water for your family	<p>Inside House/Compound</p> <p align="right">PrimarySecondary/</p> <p>Piped (public) water 1 1</p> <p>Tube well or borehole 2 2</p> <p>Protected dug well 3 3</p> <p>Unprotected dug well 4 4</p> <p>Rainwater collection 5 5</p> <p>Outside House/Compound (fetch)</p> <p>Public tap/standpipe 6 6</p> <p>Protected dug well 7 7</p> <p>Unprotected dug well 8 8</p> <p>Water from protected spring 9 9</p> <p>Water from unprotected spring 10 10</p> <p>Surface water (river/ dam/ lake/ ponds/stream/ canal/ irrigation channel) 11 11</p> <p>Filtration plant 12 12</p> <p>Bring from someone house 13 13</p> <p>Other</p> <p>Bottle water 14 14</p> <p>Tanker truck 15 15</p> <p>Donkey Cart with small tank 16 16</p> <p>Water vendor 17 17</p> <p>Other (specify) 18 18</p> <p>Do not know 98 98</p> <p>No response 99 99</p>	

A2	Please tell me from where you collect most of water for other purposes such as cooking, hand washing, washing clothes	Inside House/Compound	Primary/Secondary/	
		Piped (public) water	1	1
		Tube well or borehole	2	2
		Protected dug well	3	3
		Unprotected dug well	4	4
		Rainwater collection	5	5
		Outside House/Compound (fetch)		
		Public tap/standpipe	6	6
		Protected dug well	7	7
		Unprotected dug well	8	8
		Water from protected spring	9	9
		Water from unprotected spring	10	10
		Surface water (river/ dam/ lake/ ponds/stream/ canal/ irrigation channel)	11	11
		Filtration plant	12	12
		Bring from someone house	13	13
		Other		
		Tanker truck	14	14
Donkey Cart with small tank	15	15		
Water vendor	16	16		
Other (specify)	17	17		

If primary source of water is outside house (fetch) for A1 or A2 than ask A3 to A6 otherwise skip to A7					
A3	How many minutes/hours does it take you or another member of your household to fetch water? (I am talking about the two way trip)		Drinking water	Water for other use	
		5 minutes or less	1	1	
		6 to 15 minutes	2	2	
		16 to 60 minutes	3	3	
		1 to 2 hours	4	4	
		2 to 4 hours	5	5	
		More than 4 hours	6	6	
		Do not know	98	98	
A4	How far (in meters/ km) do you or a member of your family has to go to fetch water. (one way distance)		Drinking water	Water for other use	
		Less than 100 meters	1	1	
		100-500 meters	2	2	
		500 meters-1 kilometer	3	3	
		1-3 kilometers	4	4	
		More than 3 kilometers	5	5	
		Do not know	98	98	
		A5	How many times a day do you fetch drinking water to the house?		Drinking water
Less than once a day (do not bring daily)	1			1	
Once	2			2	
Twice	3			3	
More than two times a day	4			4	
A6	Who usually goes to fetch the water for your household		Drinking water	Water for other use	
		Adult women	1	1	
		Adult man	2	2	
		Female child (under 15 years)	3	3	
		Male child (under 15 years)	4	4	

<p>A7</p>	<p>Does the daily water you get satisfy your water needs for drinking and preparing foods</p>	<p>No 1 Yes..... If yes then All year 3 Only in winter..... 4 Only in the summer 5</p>	
<p>A8</p>	<p>Does the daily water you get satisfy your water needs for other uses aside from drinking? i.e washing hands, bathing, washing clothes</p>	<p>No 1 Yes..... If yes then All year 3 Only in winter..... 4 Only in the summer 5 Do not know 98</p>	
<p>A9</p>	<p>Do you treat/clean your water to make it better safer to drink?</p>	<p>Yes.....1 No.....2</p>	<p>A13</p>
<p>A10</p>	<p>What do you usually do to treat/clean your drinking water? <i>(investigate)</i> Anything else? <i>(Do not read answers. More than one answer is possible.)</i> (If the respondent mentions tablet name like aquatab or Pura or Chlorine, then circle option 3 If respondent mentions Sachet or packet name like PUR, Musaffa then circle 4)</p>	<p>Boil ----- 1 Add Bleach/chlorine ----- 2 Water Purification Tablets/Chlorine ----- 3 Use Sachet /packet ----- 4 Alum ----- 5 Use ceramic/other filters (sand/composite) ----- 6 Solar Disinfection (Sun) ----- 7 Use cloth to sieve it ----- 8 Potassium permanganate ----- 9 Aluminum ----- 10 Let it stand and settle ----- 11 Household filter ----- 12 Other (specify) _____ 96 Do not know ----- 98 No response ----- 99</p>	

A11	Do you clean/treat all water that you drink?	Yes ----- 1 No----- 2 If No then Only for children ----- 3 Only for sick----- 4 Other (specify)----- 5 Do not know----- 98 No response ----- 99	
A12	How often do you clean/treat your water?	Several times a day ----- 1 Every day ----- 2 At least twice a week ----- 3 At least once a month ----- 4 Less frequently ----- 5 Other(describe)----- 6	
A13	Do you store water at your home?	Yes ----- 1 No----- 2	Section B
A14	For what purpose do you store your water?	Only for drinking ----- 1 For drinking and cooking ----- 2 Other (bathing, washing hands, etc)----- 3 All of the above----- 4	A22
A15	How do you store drinking water? <i>(Enumerator note: if the respondent mentions name of any container e.g. galen, jerry can, bottle, jug, matka, pot, tub, cooler etc, then circle code 1 and do not note in others) More than one answer possible</i>	In containers ----- 1 Roof tank/cistern/underground tank ----- 2 Both containers and roof tank/cistern/ underground tank----- 3 Other ----- 98	A22
A16	May I see the containers, please? (If yes, observe and write quantity of stored water)	Yes ----- 1 No----- 2 Buckets of water daily _____ or _____ Liters	A22

A17	<p>What types of containers are these? (<i>Observe and circle all that apply. If container mouth is more than 3 cm., then circle code 2</i>)</p> <p>(<i>More than one answer possible</i>)</p>	<p>Narrow mouthed ----- 1</p> <p>Wide mouthed (more than 3cms) ----- 2</p> <p>Tap attached----- 3</p> <p>Any Other ----- 4</p>	
A18	<p>How many containers are covered?</p> <p>(<i>Observe</i>)</p>	<p>All ----- 1</p> <p>Some ----- 2</p> <p>None ----- 3</p>	A20
A19	<p>How are the containers covered?</p> <p>(<i>Observe and circle on the basis of how most of the containers are</i>)</p> <p>(<i>Only one answer is possible</i>)</p>	<p>All covered with hard cover ----- 1</p> <p>Some covered with hard cover----- 2</p> <p>All covered with a cloth/paper ----- 3</p> <p>All uncovered ----- 4</p> <p>Other ----- 5</p>	
A20	<p>How many of the containers raised above the floor?</p> <p>(<i>Observed if the containers are raised 2 inches above the floor, circle code 1</i>)</p>	<p>Some are raised ----- 1</p> <p>All are raised----- 2</p> <p>None are raised ----- 3</p> <p>Other (specify) ----- 4</p>	
A21	<p>How do you get water out of the containers? (<i>Have respondent demonstrate how they get or serve water. Circle all that apply.</i>)</p>	<p>Drinking cup/mug ----- 1</p> <p>Long handled scoop ----- 2</p> <p>Tap attached to the container ----- 3</p> <p>Pour from narrow neck container by tilting-- 4</p> <p>Other (specify)----- 96</p> <p>Do not know ----- 98</p>	

A22	If you store your drinking water in roof tanks or cisterns or underground tanks, how much water you can store in gallons? (Surveyor: If no knowledge of gallons, estimate the size of the tank: length, width, height or depth. If no information type 999)	Buckets of water daily_____ Or Liters_____		
		Length of tank (foot)		
		Width of tank (foot)		
		Height/Depth of tank (foot)		
		Not applicable (i.e do not store drinking water in roof tanks or cisterns or underground tanks---- 97 Do not know----- 98 No information-----999		
A23	How do you store your water for other uses than for drinking? <i>(Enumerator note: if the respondent mentions name of any container e.g. galen, jerry can, bottle, jug, matka, pot ,tub, cooler etc, then circle code 1 and do not note in others)</i> <i>More than one answer possible</i>	Same as for drinking water----- 1	Section B A25	
		In containers ----- 2		
		Roof tank ----- 3		
		Any other (specify)_____ 96		
A24	May I see the containers, please?	Yes ----- 1 No----- 2 Buckets of water daily_____ or Liters _____		
A25	If you store your water in roof tanks or cisterns or underground tanks, how much water you can store in gallons? (Enumerator: If no knowledge of gallons, estimate the size of the tank: length, width, height or depth. If no information enter 999)	Buckets of water daily_____ Or Liters_____		
		Length of tank (foot)		
		Width of tank (foot)		
		Height/Depth of tank (foot)		
		Not applicable (i.e do not store drinking water in roof tanks or cisterns or underground tanks---- 97 Do not know----- 98 No information-----999		

SECTION B: QUESTIONS RELATED TO WATER SERVICE AND QUALITY

#	Questions	Code	Skip To:												
B1	Is the water source managed by a committee?	Yes ----- 1 No ----- 2	B3												
B2	How does your household contribute to the maintenance of the water source?	Does not contribute anything----- 1 Contributing a set fee ----- 2 Contributing when there is a breakdown---- 3 Contributes manual labor when required --- 4 Contributes locally available materials when required ----- 5 Other----- 6													
B3	Do you get water from government pipe/tap (Don't ask this, check from A1)	Yes.....1 No.....2	B15												
If household is using government pipe/tap water ask B4 to B14															
B4	If you get water from the government pipe/tap, then please tell me number of years of connection?	1 – 5 years ----- 1 6 – 10 years----- 2 11 – 15 years----- 3 More than 15 years ----- 4 Don't know -----98													
B5	How often the regular supply has breakdowns	Never breakdowns ----- 1 Occasionally in a month ----- 2 Occasionally in six months----- 3 Occasionally in a year----- 4 Don't know.....98													
B5a	Have you installed any pump/device to assist you in getting a better flow of water from the government water system?	Yes ----- 1 No ----- 2													
B6	Does the water supply you get differ in winter and summer?	Yes ----- 1 No ----- 2 Don't know -----98 No response -----99	B6b												
B6a	Typically, how many hours of water supply do you get daily? (Enumerator: record <i>hours by time of day or total daily hours if given</i>)	<table border="1"> <thead> <tr> <th>Timing</th> <th>Hours</th> </tr> </thead> <tbody> <tr> <td>Morning</td> <td></td> </tr> <tr> <td>Afternoon</td> <td></td> </tr> <tr> <td>Evening</td> <td></td> </tr> <tr> <td>Total (Daily)</td> <td></td> </tr> </tbody> </table>	Timing	Hours	Morning		Afternoon		Evening		Total (Daily)		B7		
Timing	Hours														
Morning															
Afternoon															
Evening															
Total (Daily)															
B6b	Typically, how many hours of water supply do you get daily during the summer? (Enumerator: record <i>hours by time of day or total daily hours if given</i>)	<table border="1"> <thead> <tr> <th colspan="2">SUMMER</th> </tr> <tr> <th>Timing</th> <th>Hours</th> </tr> </thead> <tbody> <tr> <td>Morning</td> <td></td> </tr> <tr> <td>Afternoon</td> <td></td> </tr> <tr> <td>Evening</td> <td></td> </tr> <tr> <td>Total (Daily)</td> <td></td> </tr> </tbody> </table>	SUMMER		Timing	Hours	Morning		Afternoon		Evening		Total (Daily)		
SUMMER															
Timing	Hours														
Morning															
Afternoon															
Evening															
Total (Daily)															

B6c	Typically, how many hours of water supply do you get daily during the winter? (Enumerator: record <i>hours by time of day or total daily hours if given</i>)	WINTER		
		Timing	Hours	
		Morning		
		Afternoon		
		Evening		
Total (Daily)				
B7	Do you pay for city/government provided water?	Yes -----	1	B11
	No -----	2		
B8	Do you think what you pay for water is:	Reasonable -----	1	
	Too much -----	2		
	Little -----	3		
	Do not know -----	98		
B9	How do you pay for your water?	At Bank -----	1	
	Pay to operator -----	2		
	Pay at service provider office (TMA/ PHE) -----	3		
	Other (specify) -----	4		
	Do not know -----	98		
B10	How often do you pay and how much? (Enumerator: circle <i>frequency, and record payment</i>)	Frequency	RS	
		Monthly	1	
		Quarterly	2	
		Every Sixth Months	3	
		Annually	4	
		Occasionally	5	
		Other	6	
	Do not know	98		
B11	How do you describe the quality of the water that you use from the source?	Always Good -----	1	
	Sometimes is bad -----	2		
	Always is bad -----	3		
	Do not know -----	98		
B12	What is the color of water that you use from the source?	Clear -----	1	
	Not clear -----	2		
	Do not know -----	98		
B13	Does the water smell?	No -----	1	
	Yes -----	2		
	Don't know -----	98		
	If yes then; Sometimes smells bad -----	3		
	Most of the times -----	4		
B14	How would you describe the taste of your drinking water	Always tastes good -----	1	
	Sometimes tastes bad -----	2		
	Most of the times tastes bad -----	3		
	Do not know -----	98		
Ask B15 to B18 from those who are using water other than government source				
B15	Do you pay for water provided from other sources different than the city/government?	Yes -----	1	B19 B19 B19
		No -----	2	
		Not applicable -----	3	
		Do not know -----	98	
B16	Do you think what you pay for water from other sources different than the city/government is:	Reasonable -----	1	
		Too much -----	2	
		Too little -----	3	
		Do not know -----	98	

B17	How do you pay for water from other sources different than the city/government?	At a bank----- 1 At the source to an operator----- 2 Pay to a service provider delivering water to your household ----- 3 Pay to a service provider from a distribution center 4 Other (specify) -----96 Do not know.....98																										
B18	How often do you pay and how much? (<i>Enumerator: circle frequency, and record payment</i>)	<table border="1"> <thead> <tr> <th data-bbox="708 459 1036 485">Frequency</th> <th data-bbox="1042 459 1117 485"></th> <th data-bbox="1123 459 1305 485">RS</th> </tr> </thead> <tbody> <tr> <td data-bbox="708 493 1036 518">Monthly</td> <td data-bbox="1042 493 1117 518">1</td> <td data-bbox="1123 493 1305 518"></td> </tr> <tr> <td data-bbox="708 527 1036 552">Quarterly</td> <td data-bbox="1042 527 1117 552">2</td> <td data-bbox="1123 527 1305 552"></td> </tr> <tr> <td data-bbox="708 560 1036 585">Every Sixth Months</td> <td data-bbox="1042 560 1117 585">3</td> <td data-bbox="1123 560 1305 585"></td> </tr> <tr> <td data-bbox="708 594 1036 619">Annually</td> <td data-bbox="1042 594 1117 619">4</td> <td data-bbox="1123 594 1305 619"></td> </tr> <tr> <td data-bbox="708 627 1036 653">Occasionally</td> <td data-bbox="1042 627 1117 653">5</td> <td data-bbox="1123 627 1305 653"></td> </tr> <tr> <td data-bbox="708 661 1036 686">Other</td> <td data-bbox="1042 661 1117 686">6</td> <td data-bbox="1123 661 1305 686"></td> </tr> <tr> <td data-bbox="708 695 1036 720">Do not know</td> <td data-bbox="1042 695 1117 720"></td> <td data-bbox="1123 695 1305 720">98</td> </tr> </tbody> </table>		Frequency		RS	Monthly	1		Quarterly	2		Every Sixth Months	3		Annually	4		Occasionally	5		Other	6		Do not know		98	
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Every Sixth Months	3																											
Annually	4																											
Occasionally	5																											
Other	6																											
Do not know		98																										
B19	Do you agree or disagree with this statement: "Water that is clear and has no smell is safe to drink?"	Yes ----- 1 No ----- 2 Do not know -----98																										

SECTION C: QUESTIONS RELATED TO SANITATION

C1. What kind of toilet facility do members of your household usually use?

	Inside House	Outside house
Flush/pour flush to:		
Piped sewer system	1	1
Septic tank	2	2
Pit latrine	3	3
Open drains	4	4
Unknown place/do not know	5	5
Ventilated improved pit latrine	6	6
Pit latrine with slab	7	7
Pit latrine without slab/open pit	8	8
Bucket	9	9
Community latrine	10	10
No facilities or bush/field		11
Cover/bury feces	12	12
Raze	13	13
Other (specify)	96	96

C2	Do you share this facility with other households	Yes ----- 1 No ----- 2	C4
C3	How many other households share this toilet?	# of HHs _____	
C4	The last time your youngest child passed stools. What was done to dispose of the stools (in	Child used toilet/latrine----- 1 Put/Rinse into toilet or latrine----- 2	

	case no child circle 7)	Put/Rinse into drain or ditch ----- 3 Thrown into garbage----- 4 Buried----- 5 Left in the open ----- 6 No child in the house ----- 7 Other Specify -----96 Do not know-----98 No response.....99	C6 C6
C5	What is the age of your youngest child from the question above?	Age (years) _____	
C6	What type of sewerage system is present in your area?	Open drain system.....1 Closed drain system.....2 Both3 None.....4 Don't know.....98 No response.....99	
C7	Do you experience overflowing of drains in your area?	Yes, very often 1 Yes, occasionally..... 2 Yes, in rainy season 3 No..... 4 This was a problem in past but not now 5 Don't know..... 98	
C8	Are you satisfied with your toilet facilities?	Yes.....1 No.....2	Section D
C9	Give reason why your are not satisfied with you toilet facility <i>(Do not read options, ask to be specific. Encourage 'what else' until nothing further is mentioned and circle all that apply.)</i>	Not functioning 1 Smells bad..... 2 No privacy 3 Water not available 4 Prefer different type of facility 5 Other (Specify) _____	

SECTION D: HYGIENE PRACTICES OF THE HOUSEHOLDS

#	Questions	Code	Skip To:
D1	How often do you estimate that you wash your hands in a day?	Once a day-----1 Twice a day -----2 Three times a day-----3 More than 3 times (several times a day) 4 Only when hands are dirty-----5 Do not wash daily -----6	
D2	Does lack of water affect your hands washing behaviors in the household?	Yes.....1 No.....2	
D3	Do you have soap in your house?	Yes.....1 No.....2	D6
D4	Have you used soap today or yesterday?	Yes.....1 No.....2	D5 D6
D5	If you used the soap today or yesterday, please tell me the purpose. <i>(Do not read the answers, more than one answers are possible)</i>	Washing my hands -----1 Washing my children's hands-----2 Washing clothes-----3 Bathing-----4 Washing utensils -----5 Washing Floor -----6 To wash face -----7 To make children bath -----8 To wash stool of children -----9 Other (specify) _____ 96	D5a D5a D6 D6 D6 D6 D6 D6 D6 D6
<p>If (code 1 or 2) is mentioned in D5 then probe for occasion and ask D5a otherwise go to D6. In QD5a do not read answers. If the respondent talks about washing child's hands, then note in others.</p>			

D5A	You said that you used soap to wash your/your child's hands, please tell when did you wash or washed your/ your child's hands (Do not read options, ask to be specific. Encourage 'what else' until nothing further is mentioned and circle all that apply.)	After washing child's bottom -----1 After washing child stool -----2 Washing hands before preparing food3 Washing hands before feeding child 4 Washing hands before eating ... -----5 Washing hands after defecating-----6 Before feeding (milk) child -----7 Before pray [wazoo] -----8 Other (specify) _____96	
D6	How do you usually dry your hands after you wash them? (Do not read options. Single answer)	My shirt/Dupatta -----1 Use a clean towel/cloth -----2 Air dry them -----3 Other (Specify) _____96	
D7	Can you show me the place/ places where you wash your hands?	Yes.....1 No.....2	D7a Section E
Enumerator Note: D7a and D-8 observation questions. Please observe carefully and note down all information			
a)	Observe where hands are washed. (Ask to see and observe. Circle all that apply.) If soap was observed in the yard and it is within ten paces from toilet (regardless of whether it is inside/ outside) then note in "near the toilet". Do not note code this as "In yard".	Inside bathroom -----1 Near the bathroom -----2 Inside/near kitchen/cooking place ----3 In yard (but not near bathroom or cooking place)-----4 No specific place -----5 Other (specify) ----- 96	

D8 Observation only: At the hand washing location please observe and circle the cleaning agent observed at that location in the table below.

		Soap	Detergent	Ash	Mud/Sand	Other	None
1	Inside bathroom	1	2	3	4	5	6
2	Near the bathroom	1	2	3	4	5	6
3	Inside/Near kitchen/cooking place	1	2	3	4	5	6
4	In yard (not near bathroom or cooking place)	1	2	3	4	5	6
5	No specific place	1	2	3	4	5	6

SECTION E: DEMOGRAPHIC CHARACTERISTICS OF THE HOUSEHOLD MEMBERS

#	Questions	Code	Skip To:
E1	Ownership of the house	Self -----1 Rent-----2	
E2.	Since how long have you been living in this house? (for less than one year write months)	Years _____ Months _____	
E3	Respondent Age	_____ Years	
E4	What is the highest degree of education achieved by you?	Never attended school ----- 1 Less than primary ----- 2 Completed Primary (5–7 class)----- 3 Completed Middle (8-10 class) ----- 4 Matric (Class 10) ----- 5 Intermediate (completed 12 years of education) 6 Diploma ----- 7 Graduate (completed 14 years of education)8 Doctor/Engineer ----- 9 Post graduate (completed 16 years of education and above) 10 Other-----11 Don't know -----98	
E5	Mother tongue	Hindko----- 1 Pashtoon ----- 2 Afghani----- 3 Urdu----- 4 Persian ----- 5 Punjabi ----- 6 Siraki----- 7 Other-----96	
Household characteristic			
E6	Number of members in household including children?		

		#	
E7	What is the highest degree of education that any one member of your house has?	Never attended school----- 1 Less than primary ----- 2 Completed Primary (5–7 class)----- 3 Completed Middle (8-10 class) ----- 4 Matric (Class 10) ----- 5 Intermediate (completed 12 years of education) 6 Diploma ----- 7 Graduate (completed 14 years of education)8 Doctor/Engineer ----- 9 Post graduate (completed 16 years of education and above) 10 Other-----11 Don't know -----98	
E8: The household member with highest education, please specify the following			
E8a	Gender	Male-----1 Female ----- 2	
E8b	What is the relationship to the respondent?		

E9 Please tell me number, ages and if response in E7 is different than 1, school attendance of all children in the household below 18 years

_____ number of children (Interviewer please record the total number of children and cross circle that details of all children mentioned are being noted in the grid below. E.g. if total children are 5 then detail of 5 children are present in the grid below. If child is 0-11 months, record age as 0 years.)

Serial Number	Gender		Age (years)	Attending school		
	Boy	Girl		Yes	No	Did not want to answer
1	1	2	_____	1	2	99
2	1	2	_____	1	2	99
3	1	2	_____	1	2	99
4	1	2	_____	1	2	99
5	1	2	_____	1	2	99
6	1	2	_____	1	2	99
7	1	2	_____	1	2	99
8	1	2	_____	1	2	99
9	1	2	_____	1	2	99
10	1	2	_____	1	2	99
11	1	2	_____	1	2	99
12	1	2	_____	1	2	99
13	1	2	_____	1	2	99
14	1	2	_____	1	2	99
15	1	2	_____	1	2	99
NOBODY	97					
REFUSED	98					

E9 Does your household own/have the following?

If the respondent says they don't have but you can see it, then please circle yes and note "1" in the number column or as many as you see. There are certain things which are mobile (in other words can move from one place to another) like cars. So we understand that there may be items the respondent says they have but that you cannot see

		Yes	No	Number	Not answered (do not readout)
1	Refrigerator	1	0	_____	99
2	Telephone	1	0	_____	99
3	Cell phone	1	0	_____	99
4	Electric fan	1	0	_____	99
5	Automobile (Car/Van/Jeep)	1	0	_____	99
6	Bicycle	1	0	_____	99
7	Mechanized two-wheeler (Motorbike or scooter)	1	0	_____	99
8	Electricity connection	1	0	_____	99
9	Cooking gas connection (mark No if uses wood or coal stove)	1	0	_____	99
10	Sewing machine	1	0	_____	99
11	Washing machine	1	0	_____	99
12	Push cart	1	0	_____	99
13	Air Conditioning	1	0	_____	99
14	Generator for Electricity	1	0	_____	99
15	Agricultural Land	1	0	_____	99

SECTION F: PERCEPTION ABOUT DIARRHEA

#	Questions	Code	Skip To:
F1	What are the major diseases for young children (below five years of age) in this area/village/town? <i>(If disease of loose motion is mentioned, skip to F5)</i>	a _____ b _____ c _____ Don't know..... .98	
F2	[If disease of loose motion is not mentioned] Probe and ask: Are there any other diseases?	disease of loose motion.....1 Other (list) _____ Don't know..... .98	F5
F3	Is disease of loose motion a common disease for young children (below five years of age) in your community/ area/ village/ town?	Yes.....1 No.....2 Don't know..... 98	F5
F4	Probe: Is it a major problem?	Yes.....1 No.....2 Don't know..... 98	
F5	Have any children in your household had disease of loose motion in the past two weeks?	Yes.....1 No.....2 No child in house 3 Don't know98	F7 F7 F7
F6	If yes, how many times in the past two weeks?	Number of times _____ Don't know..... .98	
F7	In your opinion, what are the causes of disease of loose motion in young children (<i>ask once</i>)?	Unclean water1 Bad food.....2 Other (specify)..... 96 Don't know..... .98 No response......99	Terminate F8
F8	Anything else that can cause diarrhea? [<i>Probe once again</i>]	Specify _____ Don't know.....1 No response.....2	

F9	Do you agree with the following statement: unclean drinking water can be related to disease of loose motion? (don't readout)	Yes ----- 1 No ----- 2 Maybe ----- 3 Don't know----- 98	
F10	Do you agree with the following statement: not washing your hands can be related to disease of loose motion? (don't readout)	Yes ----- 1 No ----- 2 Maybe ----- 3 Don't know----- 98	
F11	Do you agree or disagree with the following statement: lack of toilet facilities can be related to disease of loose motion? (don't readout)	Yes ----- 1 No ----- 2 Maybe ----- 3 Don't know----- 98 No response ----- 99	
F12	In your opinion does contamination from infant's child stool cause disease?	Yes ----- 1 No ----- 2 Maybe ----- 3 Don't know----- 98 No response ----- 99	

Interview end time: _____

Phone number of respondent _____

End of Questionnaire

Addendum

Instructions for Supervisors and Enumerators

Reference Question B19: Do you agree or disagree with this statement: "Water that is **clear** and has no smell is safe to drink?"

Please ask the above questions as; "Do you agree or disagree with this statement "Water that looks clear and has no smell is safe to drink?"

**APPENDIX 3
FOCUS GROUP FACILITATOR GUIDE**

WATSAN Assessment Peshawar Town 1

August-September 2010

WATSAN Assessment FGDs- Peshawar Town 1

01	Name of facilitator(s)	
02	Name of recorder/assistant(s)	
03	Date of Focus Group	
04	Time of Focus Group	Begin: End: Total:
05	Location of Focus Group	
06	Number of participants	
07	Male or female?	MALE/ FEMALE
08	Special group or subgroup of survey? (circle)	1) Women community leaders 2) Men community leaders 3) Teachers 4) Religious leaders 5) Residents
09	Audio recording?	YES/ NO

FGD GUIDE:

Introduction: Pakistan Safe Drinking Water and Hygiene Promotion Project

Read the following bullet points aloud to participants before starting the discussion:

NGO HOST TO INTRODUCE PSDW STAFF

- Welcome everyone. My name is_____. On behalf of Khair Khaghara Tanzeem (KKT) I want to welcome you today. KKT is working with a project from Islamabad, and now I would like their staff to introduce themselves.

INTRODUCE FACILITATORS

- My name is _____
- I am from Pakistan Safe Drinking Water and Hygiene Promotion Project and will be facilitating this session.
- This is _____ and he/she will be taking notes so that we can write up what we have discussed during this session.
- PSDW is a four year project funded by USAID to help improve basic health services for the Pakistani population.
- PSDW has been asked by the US Agency for International Development (USAID) to conduct an assessment that will help USAID to better understand the situation surrounding water and sanitation in Pakistan.

WELCOME THE GROUP

- I would like to welcome everyone to this focus group.
- The purpose of today's session is to help PSDW find out about the situation of water and sanitation in Peshawar Town 1.
- This discussion will give us important information about needs in this area so that USAID can plan future activities.

CONFIDENTIALITY

- Everything that is shared through today's discussion will be kept remain confidential, and no one other than the study team will see your responses, including government of Pakistan officials.

- We will be taking notes from this session and **if everyone agrees** we will also be making a tape recording.
- However, you **do not** need to tell us your name if you don't want to, and we will not use details that will identify you personally in our report.
- We expect **all** group members to treat the information shared by others as confidential and ask you to respect each other's privacy and views.

INFORMED CONSENT

- The benefits of participating in this focus group will be learning about other people's thoughts and opinions and helping your community by giving feedback for future programs.
- The session will take about one and a half hours and your participation is completely voluntary.
- If there are questions you do not wish to answer, you **do not** need to.
- If you chose to participate in the focus group and then would like to stop, you can withdraw at any time.
- I would like to make it clear that we are here to find out your opinions. There are no 'right' or 'wrong' answers to any of today's questions and it is okay for you disagree with each other - we only ask that you are completely honest in responding to the questions.

GROUND RULES/GUIDELINES

- There are no right or wrong answers, only differing points of view.
- We're tape recording (if they agreed) so only one person should speak at a time.
- You don't need to agree with others, but you must listen respectfully as others share their views.
- We ask that your turn off your mobile phone. If you cannot and if you must respond to a call, please do so as quietly as possible and rejoin us as quickly as you can.

- My role as moderator will be to guide the discussion.
- Your role is to talk to each other and honestly share your views.
- We're on a first name basis.

Ice-breakers (intended to open the discussions and to give each individual the opportunity to speak)

Say: *"We will be passing around name badges. You do not need to put your 'real' name on the badge, but please put a name that you would like to be referred to during the discussion. This will help us to keep a record of your contributions"*

To start the discussion I would like you to decide, as a group, THREE words that you feel describe Peshawar Town 1.

Example questions:

- a) What are the words?*
- b) Why did you choose them?*

Prompt: What first comes to your mind when you think of Peshawar Town 1?

1. Handwashing

When was the last the last time you washed your hands with soap? Why did you wash them? How many times a day do you wash with soap?

We would like to find out when you think it's essential that other people should wash their hands. We're not asking about you but about others you know.

Example questions:

- a) When should your dentist wash his hands? (list on flipchart)*
- b) When should your vegetable seller wash his hands? (list)*
- c) When should your ayah wash her hands? (list)*
- d) When should your daughter-in-law wash her hands? (list)*

Prompt (if they don't mention):

Should people wash their hands_____:

- After shaking hands?
- After touching money?
- After going to the market?
- After touching raw meat?
- Before cooking?

Can you agree on times when everyone should wash their hands? (list)

2.Quantity of water

Example questions:

a) What do you use water for? (list on flipchart)

Prompt: (only if they haven't mentioned)

- Washing hands
- Washing clothes
- Flushing toilet
- Cooking
- Watering plants
- Washing car/motorcycle/bicycle
- Cleaning house
- Keeping dust down
- Bathing

b) How do you know when you have enough water? OR How much water does your household need? Enough to. . . .

c) Do you have enough water now? OR Does the amount of water you have now limit you in any way? OR Is there something on the list that you can't do because you don't have enough water?

d) What would you do if you had more water? OR What other things could you do if you had more water?

e) (if not enough), What have you done to get more? (list)

f) Have any of you invested in a large storage tank for water for your rooftop?
(record number who have)

g) Why did you buy it?

Probe: what made you decide to do this? Was it because the supply from pipes isn't constant?

h) What did it cost? (record prices mentioned)

3. Water Quality

When did you last drink water at home? Describe—Where was it from (source)? Was it treated in any way? If so, how? Why did you treat it?

Example questions:

a) How do you know your water is of good quality? OR How do you know your water is safe to drink?

b) What are the characteristics of quality/safe water?

Probe: color, taste, odor, clarity/absence of sediment. Try to get the group to define what they consider safe, good quality water or how they know it is unsafe.

4. Service delivery: water

Example questions:

a) What do you want in terms of water delivered to your house/coming from your tap? What do you expect? What would you define as good water services?

Prompt: quality of water coming from tap (as defined in previous section), hours of service, pressure, amount of water?

b) If you are unsatisfied with the water delivered to your house, what could you do? What would your role be?

c) Do you know the pump operator in charge of distribution?

d) Do you know the structure of the water supply system?

e) What is the role of the Union Council in getting water delivered to your house?

f) What is the role of the pump operator in getting water delivered to your house?

g) If there are problems, would you get involved if you knew your involvement would lead to better quality water?

h) Would you, as a resident of Peshawar Town 1, be willing to pay something to get better quality and a more consistent supply of water?

i) How much would you be willing to pay?

5. Service delivery: sanitation/drainage system

Example questions:

- a) Are you satisfied with the drainage system in your neighborhood?
- b) What are the issues/problems with the system?
- c) What do you think are possible solutions?
- d) Who could solve these problems/implement these solutions?

Probe: Can citizens/neighborhoods/communities solve these problems? Who can best solve these problems?

- e) Would you as a resident of Peshawar Town 1 be willing to pay something to solve these problems?

6. Closing Statements

Of all the things we have discussed, what to you is most important?

Our objectives today were to get your perspectives as residents of Peshawar Town 1 on:

- when it's essential to wash hands
- how you know water is clean/safe
- how much water your household needs
- your expectations about water from the tap
- your expectations about the drainage system in your neighborhood

What we found out is: (briefly summarize discussion on each topic)

Have we missed anything? Before we close, is there anything further you would like to include in the discussion to make sure PSDW has a full picture of the important issues in Peshawar Town 1, particularly thinking about some of the topics we have discussed?

(Prompt: Does anyone have any final comments/ questions?)

I would like thank you all for your willingness to participate in this group and for sharing your experiences so openly and honestly. We really appreciate your feedback.

At this point, Iftari packages (token gifts) will be distributed to all participants.