

SUMMARY REPORT

CRD SHOWER BEHAVIOUR FOCUS GROUPS

Capital Regional District (CRD)
Parks and Environmental Services –
Environmental Partnerships

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EXECUTIVE SUMMARY

The CRD has seen significant reduction in water use over the past ten years, but water use for showering is still a concern. Since showering ranks the second highest in terms of in-home water use and is third highest in energy use in the home, the CRD realized that the environmental impact of reducing showering times in the region's households would be positive. To this end the CRD commissioned a series of focus groups to investigate current showering behaviour, to determine what aspects of the showering behaviour could be changed, and to test ways of motivating people to take shorter showers.

Most people feel that they are "average" in terms of showering time.

For both themselves personally and their household as a whole, people generally felt that their showering time was comparable to that of others residing in the CRD. The accuracy of this perception was called into question during the focus group discussions, with some participants revising their view in light of what they heard others say. Nevertheless, it is important for the CRD to be aware that most people do not see themselves as water-wasters or consumers of large amounts of water.

Two considerations emerged as strongest determiners of shower length.

- The most frequently-cited determiner of shower length was a combination of the need to achieve cleanliness and the related notion of what needs to be accomplished in the shower (e.g., the routine of washing, shaving, washing one's hair, etc.).
- > Time constraints was another important determinant of shower length. Busy people tend not to linger in the shower, since such behaviour could make them late for class, for work, or for a social event.

Societal expectations seen as a strong influencer on showering behaviour.

Consistent with the perceived importance of cleanliness as a major determiner of shower length, people feel that societal expectations in terms of cleanliness influence their showering behaviour. It is viewed as "inconsiderate" not to be clean and odour-free.

The perception of having "free water" represents a challenge for the CRD.

People who do not pay for their water consumption directly are difficult to target with conservation messages. The perception of something being "free" is closely linked to wastefulness. Renters or people who live in townhouse/condominium complexes where water is included in the rent or strata fees have no financial motivation to conserve water.



Morning showers are not the norm.

One of the prominent findings of the research was that people who shower in the morning are by no means in the majority. Many shower in the evening or at various different times throughout the day. Designing advertisements that target only morningshower people will miss a large portion of the population.

Scope to change some aspects of showering to enhance water conservation.

- There was great resistance to the idea of taking fewer showers overall; people felt that they simply would not be clean if they did not shower as often as they presently do.
- ➤ People were, however, willing to try to take shorter showers. There is the potential for achieving some success with a campaign to target this behaviour.
- > There is also scope to educate people about how much water is wasted when the shower is being warmed up. Most participants had never considered warming up the shower as a significant use of water.
- A campaign to introduce the turn-on/turn-off method of showering might also meet with some success if it were conducted during the warmer months of the year.

Bus ads and community newspapers deemed best for communication.

- Notwithstanding the popularity of social media, participants of all ages were in agreement about the effectiveness of bus ads for disseminating CRD messages. Ads on the *outside* of busses were deemed the most effective, because they would be seen by people at bus stops, people in cars, people on bicycles, and pedestrians.
- Participants also expressed support for ads in community newspapers, but this information vehicle was not quite as popular as bus ads.



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SECTION 1: RESEARCH METHODOLOGY

1.1 Background and Research Objectives

In the summer of 2014, the Capital Regional District (CRD) Parks and Environmental Services – Environmental Partnerships initiated a focus group research project in order to gain insight into residents' showering behaviour. The CRD has seen significant reduction in water use over the past ten years, but water use for showering is still a concern. Since showering ranks the second highest in terms of in-home water use and is third highest in energy use in the home, the environmental impact of reducing showering times in CRD households would be positive.¹

The CRD undertook a literature review and provided the Consultant with the following findings:

- 1. There is little insight by users into how much water is actually consumed.
- 2. There is little understanding of the connection between water use and energy.
- 3. There are competing motivations (hygiene, luxury and relaxation) that favour higher water use. Potential conflicts include a desire for home improvements and spa-like bathrooms (e.g., multi-headed showers, power shower heads), and a strong (and culturally reinforced) desire to prioritize hygiene, cleanliness and relaxation. There is a perception of the value of a shower as "me time." People are of the opinion that longer shower times mean greater cleanliness.
- 4. Highest showering time and therefore higher water use is most likely found in the 18 to 34 age group.
- 5. In addition, evidence has shown that the presence of children (especially teenagers) increases the chances of higher water use.
- 6. There is no significant difference between males/females with respect to the duration of showering time.
- 7. While the impact of social norms may be weak at present, individuals are influenced by what others do, particularly "people like them" (i.e., people with whom they personally identify and to whom they relate, such as family or peers).

To investigate the accuracy of the findings of the literature review in the CRD, the CRD commissioned a series of focus groups in the hope that the information gleaned could potentially be used to develop a CRD-focussed behaviour-change strategy.

¹ This background information was provided to the Consultant by the CRD.



1.2 Scope of Work

The general scope of work for this focus group research is outlined below:

- design a screening document to recruit the appropriate participants for the focus groups and use it for recruitment,
- design and program a pre-focus-group questionnaire for recruited participants to complete online prior to attending their group, and monitor completions,
- design a moderator's guide for the focus groups,
- > conduct the focus groups,
- data analysis, and
- preparation of a report.

Research activities are described in detail in the following section.

1.3 Research Activities

The Consultant completed the following activities for this research project:

1.3.1 Development of Screener

In consultation with the CRD, the Consultant designed a screening document, which may be viewed in Appendix A. In addition to the standard industry disqualifying questions (e.g., working in marketing, market research, advertising), the screener also served to eliminate individuals who worked for the CRD, who did not have a working shower in their home, or who bathed rather than showered. On the basis of their responses to the various screening questions, potential participants were assigned to the appropriate group. The original criteria for the various groups are given below:

Group 1: Mixed gender: 18 to 24-year-olds, single, living at home with parent(s)/other

family members, or living with others (not family members), mix of

working and not working

Group 2: Mixed gender: 18 to 24-year-olds, single, living alone, mix of working and not

working

Group 3: Males only: 18 to 24-year-olds, single, living at home with parent(s)/other

family members, living with others (not family members), or living

alone, mix of working and not working

Group 4: Females only: 18 to 24-year-olds, single, living at home with parent(s), living with

others (not family members), or living alone, mix of working and

not working



Group 5: Mixed gender: 25 to 34-year-olds

Group 6: Mixed gender: 35 to 54-year-olds (preferably those with children at home,

teenagers if possible) MAXIMUM 2 WITHOUT CHILDREN

Group 7: Mixed gender: 55 years of age or older

1.3.2 Recruitment

Recruitment was initiated at the beginning of October 2014. Using R.A. Malatest & Associates' subscription to the ASDE Survey Sampler lists for Victoria, households were phoned for focus group participation. During the phone call with the land line of a household, every effort was made to obtain contact information for any individuals between 18 and 24 years of age (who are very likely to have only a cell phone). Intercept activities were also undertaken for the 18 to 24 age group. Anyone in this age group with whom contact had been established was encouraged to pass information about the focus group on to any other individuals his or her age. The Consultant also prepared publicity materials (provided in Appendix B) and posted these at various post-secondary campuses and other locations where youth might see them. Word-of-mouth proved to be by far the most effective way of recruiting the younger participants.

The Consultant recruited ten participants for each of the seven focus groups. For most of the groups it was possible to recruit up to two back-up individuals who agreed to step in at the last minute if there was a cancellation on the part of another participant.

The one group that caused some difficulty was Group 2 (18-24, mixed gender, living alone); very few individuals between the ages of 18 and 24 are financially in a position to live alone. In the end, CRD approval was obtained to include two "living with others" in this focus group so that a sufficient number of participants could be attained.

1.3.3 Design and Programming of Pre-Focus-Group Questionnaire

The CRD provided a very long list of information to be obtained from this research project. Upon review, the Consultant realized that it would be impossible to explore everything in a traditional two-hour focus group time slot. It was also apparent that participants could better provide some of the required information in private (i.e., without the influence of hearing the answers of others in the group). Both to save time and to ensure more accurate answers, the Consultant proposed a pre-focus-group questionnaire, or "homework" assignment for recruited participants. The Consultant and the CRD determined which information would be better suited to a questionnaire format. The Consultant designed the questionnaire and submitted it to the CRD for feedback. Once a final version had been approved, the questionnaire was programmed for online administration. Before going to field, it was rigorously tested. The final homework questionnaire is given in Appendix C.

Participants who were successfully screened and recruited for the focus group (as well as those who had agreed to serve as back-ups) were emailed a link to their personal



homework questionnaire. Recruitment staff kept track of which participants had completed the questionnaire and sent reminder emails to those whose "homework" was still outstanding. The CRD and R.A. Malatest & Associates had decided that only participants who had completed the questionnaire would be permitted to attend the focus group. Participants were, however, very conscientious about completing their "homework" and it was not necessary to turn anyone away from the focus groups.

1.3.4 Development of Moderator's Guide

Research questions that were not covered in the "homework" questionnaire were incorporated into the moderator's guide. The guide was designed to facilitate focus groups of approximately two hours. The CRD reviewed the guide and made suggestions for additions or deletions.

To maintain participant interest and involvement, the guide was designed to include a number of different activities in addition to the traditional round-table discussions; these included sorting of cards, posting responses around the room, examining shower monitors and other devices, and responding to a PowerPoint presentation. The PowerPoint presentation was used in several ways: to guide the discussion in one activity, to provide information about the shower monitors and other devices, and to present the advertising messages to be tested on the participants.

Both the moderator's guide and a printout of the accompanying PowerPoint are provided in Appendix D.

1.3.5 Conducting Focus Groups

The focus groups were conducted on October 23, October 27, October 28, and October 29, 2014. The focus groups were all approximately two hours in duration. Focus group attendance was good, ranging from eight to all ten recruited participants. Most focus groups had nine participants attending. Discussion was generally lively, and participants seemed keen to explore showering behaviour and discuss options for modifying this behaviour.

At the conclusion of the group, participants received a gratuity of \$75 and a package from the CRD (containing a waterproof shower timer, a plastic bag for measuring the water output of their showerhead, dye tablets for finding toilet leaks, and various pamphlets/other CRD literature) in appreciation of their participation.

The spreadsheets outlining the characteristics of the participants in the various groups (with all names removed) are given in Appendix E. Their employment and dwelling characteristics are given in Table 1-1.



Table 1-1 Focus Group Participants (Employment Status and Dwelling Type)						
Employment Status*	Working full-ti (including students work full-time)		Working (including st work pa	tudents who	(eit	Not working ther unemployed or idents who are not working at a job)
Group 1 (18-24, mixed gender, living with others)	20%		50	%		30%
Group 2 (18-24, mixed gender, most living alone)	13%		50	%		38%
Group 3 (18-24, males)	22%		67	' %		11%
Group 4 (18-24, females)	11%		67	' %		22%
Dwelling Type	Single detached	Sem	i-detached	Townhous Row Hous		Apartment/ Condominium
Group 1 (18-24, mixed gender, living with others)	60%		0%	10%		30%
Group 2 (18-24, mixed gender, most living alone)	0%		0%	0%		100%
Group 3 (18-24, males)	56%		22%	11%		11%
Group 4 (18-24, females)	56%		22%	0%		22%
Group 5 (25-34, mixed gender)	33%		0%	22%		44%
Group 6 (35-54, mixed gender, most with children at home)	67%		22%	11%		0%
Group 7 (55+, mixed gender)	22%		22%	22%		33%

Source: Recruitment screener (see Appendix A).

Note: The numbers will total to more than the number of focus group participants, as some individuals fell into more than one category (e.g., student and working part-time).

1.3.6 Data Analysis and Reporting

The "homework" questionnaire data was tabulated; it is presented in Appendix F. The data includes the questionnaires of individuals who actually attended the focus group, as well as those completed by individuals who were subsequently unable to come and those from individuals who had agreed to serve as back-ups. The decision to include all completed questionnaires was made in consultation with the CRD. Readers are cautioned that this data should not be viewed as a statistically significant survey. It represents information gathered from these focus group participants only and cannot be extrapolated to the entire population of the CRD.

^{*}Participants in Groups 5, 6, and 7 were not asked whether or not they were working as this characteristic was not part of the selection criteria for these groups.



To accommodate the CRD's request for an estimated "average shower time", mean scores were calculated for question C6 on the *Homework Questionnaire*. Mean scores are usually calculated only for Likert scales, so applying this calculation to a "minutes of showering" scale was somewhat unorthodox. It was, however, the only way to gain some insight into the "average shower time" of the questionnaire respondents. For the five-point "minutes of showering" scale, mean scores were calculated as follows:

(the number of individuals responding "less than 5 minutes" x 1) plus (the number of individuals responding "5 to 7 minutes" x 2) plus (the number of individuals responding "8 to 10 minutes" x 3) plus (the number of individuals responding "11 to 15 minutes" x 4) plus (the number of individuals responding "more than 15 minutes" x 5) divided by the total number of individuals expressing an opinion.

These calculations yield a score out of 5 that can then be loosely related back to the time increments. This was by necessity a subjective process.

The focus group recordings were transcribed and reviewed during the preparation of this report. The data from the various focus group activity worksheets, etc. may be found in Appendix G.

Both the "homework" and the focus group findings were synthesized in the preparation of this report in order to address the objectives of the research provided to the Consultant by the CRD.



SECTION 2: "HOMEWORK" QUESTIONNAIRE FINDINGS

2.1 Verification and further questions

The first section of the homework questionnaire included verification questions to confirm that the responses given to the screener were correct.² It did, however, also include questions about how respondents' showering behaviour was influenced by their occupation and about the hardware in their shower.

2.1.1 Job Affecting Showering Behaviour

A6. Would you say that your occupation (i.e., what you do in the way of a job) influences your showering habits?

Occupation does affect showering behaviour. If the respondent's job is somehow perceived as "messy", then more frequent showers are required. Messy jobs range from physically intense work, working outdoors, working indoors in food preparation, and working in health care. Showering behaviour is also influenced by the requirement to turn up at work looking clean and presentable. Interestingly, two respondents (one in Group 2 - 18-24, mixed gender, most living alone and one in Group 6 - 35-54, mixed gender, most with children at home) provided comments that suggested that fitness somehow also fell under the rubric of work.

Only in Group 2 (18-24, mixed gender, most living alone) and Group 6 (35-54, mixed gender, most with children at home) did the majority of respondents (67%) indicate that their job impacted their showering behaviour.

The most unusual comment about how showering behaviour was affected by occupation came from a respondent in Group 4 (18-24, females):

"I observe an excess amount of waste in health care on a daily basis, which prompts me to be conscious of my consumption of natural resources and the waste I produce."

2.1.2 Shower Hardware in Home

A7(a) What type of a shower do you have in your home?

Respondents were also asked two questions about their shower hardware. Table 2-1 presents the findings with respect to the water efficiency of respondents' showerheads. The table shows that, in most groups, the majority of respondents had no idea how water efficient their showerheads were. Only in Groups 5 (25-34, mixed gender) and 6 (35-54, mixed gender, most with children at home) — where there was greater likelihood of individuals owning their own home and consequently paying their water costs directly³ — were the majority of

² The verification questions are not reported on here.

³ One focus group participant in the 25-34 age group commented: "I wonder if an older demographic would be more observant of their money – being in apartments where it is all included, versus being a homeowner?" A



respondents aware that they had a water-efficient showerhead installed. A surprising finding is that no one in Group 7 (55+, mixed gender) said that his/her showerhead was "not water efficient", yet during the introductions, one gentleman stated that he came to the focus group for the purpose of saying: "My shower floods out like Niagara Falls. I would like that to be known, I guess." Perhaps this person was uncertain whether it was a showerhead problem or a water pressure problem and chose "don't know" instead of "not water-efficient."

Table 2-1 Showerhead Water Efficiency						
	Very water efficient (7 litres per minute or less)	Water efficient (just over 7 to 9 litres per minute)	Not water efficient (10 litres per minute or more)	Don't know		
Group 1 (18-24, mixed gender, living with others)	0%	36%	0%	64%		
Group 2 (18-24, mixed gender, most living alone)	10%	30%	0%	60%		
Group 3 (18-24, males)	9%	27%	0%	64%		
Group 4 (18-24, females)	0%	18%	9%	73%		
Group 5 (25-34, mixed gender)	0%	55%	0%	46%		
Group 6 (35-54, mixed gender, most with children at home)	8%	58%	0%	33%		
Group 7 (55+, mixed gender)	30%	10%	0%	60%		

A7(b) Does your shower have multiple showerheads?

Spa showers were not prevalent among the respondents. In most groups, no one had a shower with multiple heads. One respondent in each of Groups 5 (25-34, mixed gender) and 6 (35-54, mixed gender, most with children at home) stated that there was a shower with multiple heads in his/her household. In Group 3 (18-24, males) there were, three respondents who reported having a shower with multiple heads. Multiple heads are, however, not the only factor that can influence the "spa-ness" of a shower and, hence, lengthen showering time. One respondent in Group 7 (55+, mixed gender) commented during the focus group: "With the hand-held, you have the choice of all the pulses. You keep it on because it feels so good."



2.2 Household Composition and Showering Habits

2.2.1 Household Size and Composition

B1.	1. Including yourself, how many people are currently living in your household? Ple				
	specify the number of people.				
	(a) adult(s) (18 years of age or older; this may include roommates)				
	(b) O none adolescent(s) aged 13 to 17 years				
	(c) O none child(ren) aged 12 years or younger				

The household composition for the various respondent groups is given in Table 2-2. As would be expected, the smallest households were seen in Group 2 (18-24, mixed gender, most living alone) and Group 7 (55+, mixed gender).

Table 2-2 Household Composition						
	Average number of adults (18 years of age and older)	Average number of adolescents (13 to 17 years of age)	Average number of children (12 years of age or younger)			
Group 1 (18-24, mixed gender, living with others)	2.6	0.5	0.2			
Group 2 (18-24, mixed gender, most living alone)	1.4	0.1	0.2			
Group 3 (18-24, males)	3.0	0.2	none			
Group 4 (18-24, females)	3.6	0.3	none			
Group 5 (25-34, mixed gender)	1.9	none	0.5			
Group 6 (35-54, mixed gender, most with children at home)	2.1	0.8	0.8			
Group 7 (55+, mixed gender)	1.6	none	none			

2.2.2 Total Number of Showers per Week

B2.	In a typical week (i.e., 7 days), what is the average TOTAL number of showers					
	taken by ALL the various people in your household?					
	Adult(s) (18 years of age or of	older)				
	showering at home	O none	showers per week			
	showering elsewhere	O none	showers per week			
	Adolescent(s) (aged 13 to 17	years)				
	showering at home	O none	showers per week			
	showering elsewhere	O none	showers per week			
	Child(ren) (aged 12 years and	d under)				
	showering at home	O none	showers per week			
	showering elsewhere	O none	showers per week			

The findings for adults are presented in Table 2-3. As shown in the table, the majority of respondents and their fellow adult household members shower at home. In most households most adults do not shower every day. Only in two groups, Group 3 (18-24, males)



and Group 5 (25-34, mixed gender), was the average number of showers per adult per week greater than seven.

Table 2-3 Total Number of Showers (Adults only, adolescents and children are not included)				
	Average number of household showers by adults	Average showers per adult per week*		
Group 1 (18-24, mixed gender, living with others)	13.9 (home) 0.9 (elsewhere)	5.6		
Group 2 (18-24, mixed gender, most living alone)	6.6 (home) 0.4 (elsewhere)	5.0		
Group 3 (18-24, males)	18.9 (home) 4.0 (elsewhere)	7.6		
Group 4 (18-24, females)	19.2 (home) 1.1 (elsewhere)	5.6		
Group 5 (25-34, mixed gender)	15.5 (home) 0.9 (elsewhere)	8.6		
Group 6 (35-54, mixed gender, most with children at home)	11.0 (home) 1.3 (elsewhere)	5.9		
Group 7 (55+, mixed gender)	6.3 (home) 0.3 (elsewhere)	4.1		

^{*} The average number of showers per adult was calculated by summing the number of showers at home and elsewhere and then dividing by the average number of adults in a household for that group (using the data from household composition in Table 2-2).

The findings with respect to adolescents and children are given in Table 2-4. Given the small number of adolescents and children in the households of questionnaire respondents, the results can only be used to state that adolescents shower more frequently than children. Respondents were not specifically asked about the length of the showers taken by the children and adolescents in their households.



Table 2-4 Average Number of Showers per Week (Adolescents and Children only)				
	Average showers per adolescent per week*	Average showers per child per week*		
Group 1 (18-24, mixed gender, living with others)	6.8 (home) 0.0 (elsewhere)	3.0 (home) 0.0 (elsewhere)		
Group 2 (18-24, mixed gender, most living alone)	7.0 (home) 0.0 (elsewhere)	1.0 (home) 0.0 (elsewhere)		
Group 3 (18-24, males)	10.0 (home) 0.0 (elsewhere)	no households with children		
Group 4 (18-24, females)	9.5 (home) 0.0 (elsewhere)	no households with children		
Group 5 (25-34, mixed gender)	no households with adolescents	1.0 (home) 1.5 (elsewhere)		
Group 6 (35-54, mixed gender, most with children at home)	8.5 (home) 0.5 (elsewhere)	4.0 (home) 0.7 (elsewhere)		
Group 7 (55+, mixed gender)	no households with adolescents	no households with children		

^{*} The average number of showers per adolescent/child was calculated by summing the number of showers at home and elsewhere and then dividing by the average number of adolescents/children <u>in households that reported adolescents/children</u>.

2.2.3 Time of Day Showers Are Taken

B3.	Including yourself, what is the usual time of day that people in your household take			
	showers at home?			
	Adult(s) (18 years of age or older)			
	O in the morning O in the evening O varies too much to say			
	Adolescent(s) (aged 13 to 17 years)			
	O in the morning O in the evening	O varies too much to say	O none/bathe only	
	Child(ren) (aged 12 years and under)			
	O in the morning O in the evening	O varies too much to say	O none/bathe only	

Respondents and their household members showed great variation in terms of when they took showers:

- Among adults there was a slight preference for morning showers, but as shown in Table 2-5, the proportion of respondents who said that "it varies too much to say" was often quite high. For example, in Groups 4 (18-24, females) and 5 (25-34, mixed gender) more than half of the respondents said their showering times varied too much to say.
- ➤ Adolescents were fairly evenly divided between showering in the morning and showering in the evening.



Children generally showered in the evening before bed or took baths instead of showers.

Table 2-5 Usual Time of Day for Showering (Adults only, adolescents and children are not included)					
	Morning	Evening	Varies too much to say		
Group 1 (18-24, mixed gender, living with others)	37%	27%	37%		
Group 2 (18-24, mixed gender, most living alone)	80%	20%	0%		
Group 3 (18-24, males)	55%	9%	36%		
Group 4 (18-24, females)	18%	9%	73%		
Group 5 (25-34, mixed gender)	18%	27%	55%		
Group 6 (35-54, mixed gender, most with children at home)	67%	17%	17%		
Group 7 (55+, mixed gender)	50%	10%	40%		

2.2.4 "Averageness" of Household

B4.	Thinking now about your household as a whole, and compared to other households				
	like yours (i.e., with the same number of people), do you think the total showering				
	time of everyone in your house is?				
	well above average	O slightly above average	O about average		
	slightly below average	O well below average	O couldn't say/no idea		

Respondents were asked to rate their household in terms of the amount of time spent showering by comparing it to what they imagined other households similar to theirs were like. The data are presented in Table 2-6.

- Respondents generally considered their household to be about average in terms of showering duration. In four of the seven groups, the majority of responses fell into this category.
- ➤ Younger respondents were more likely to say that their household was "slightly above average" or "well above average." In Group 7 (55+, mixed gender), no one rated his/her household as being above average. This group also had the highest proportion of people who felt their household was well below average in terms of showering duration.
- ➤ There were three groups in which respondents felt unable to rate their household, with the proportion being the highest in Group 3 (18-24, males).



Table 2-6 Perception of Length of Showers (as compared to similar households)						
	Well above average	Slightly above average	About average	Slightly below average	Well below average	Couldn't say /no idea
Group 1 (18-24, mixed gender, living with others)	10%	30%	50%	0%	0%	10%
Group 2 (18-24, mixed gender, most living alone)	0%	33%	33%	33%	0%	0%
Group 3 (18-24, males)	9%	18%	46%	9%	0%	18%
Group 4 (18-24, females)	9%	18%	55%	18%	0%	0%
Group 5 (25-34, mixed gender)	0%	33%	44%	11%	11%	0%
Group 6 (35-54, mixed gender, most with children at home)	0%	25%	50%	17%	0%	8%
Group 7 (55+, mixed gender)	0%	0%	67%	0%	33.3%	0%

^{*}The data for Group 2 should be interpreted with caution, as the question was answered by only three people. Most respondents in this group lived alone and were therefore not asked this question, because their household consisted of only one person. Their "household" information was captured in question C7.

2.3 Personal Showering Habits (Hair-washing, Shaving, Brushing Teeth)

After respondents had answered questions about their household, they were asked a much longer set of questions about their personal showering habits. For clarity, the questions were divided into three grooming activities (besides washing oneself) that people typically might do in the shower, namely, (1) hair-washing, (2) shaving, and (3) tooth-brushing. Hence, the write-up for each activity will include data from questions C1, C5, and C6.

2.3.1 Hair-washing in the Shower at Home (Frequency)

C1.	C1. In a typical week (i.e., 7 days), how many times do you shower at home:				
	(a) without washing your hair (in the shower):	O none	times per week		
	(b) including washing your hair (in the shower):	O none	times per week		

As may be seen in Table 2-7, showers that include washing one's hair are more common than those that do not include this activity. In every group there was at least one person who never showered without washing his/her hair.

For all groups, the average number of showers that included hair-washing was higher than the average numbers of showers that did not.



Table 2-7 Hair-washing in the Shower (Frequency)				
	Average number of times per week			
Group 1 (18-24, mixed gender, living with others)				
without washing your hair	1.6 showers			
including washing your hair	5.1 showers			
Group 2 (18-24, mixed gender, most living alone)				
without washing your hair	1.9 showers			
including washing your hair	3.5 showers			
Group 3 (18-24, males)				
without washing your hair	1.9 showers			
including washing your hair	5.3 showers			
Group 4 (18-24, females)				
without washing your hair	1.7 showers			
including washing your hair	3.6 showers			
Group 5 (25-34, mixed gender)				
without washing your hair	2.8 showers			
including washing your hair	5.3 showers			
Group 6 (35-54, mixed gender, most with children at home)				
without washing your hair	1.2 showers			
including washing your hair	5.6 showers			
Group 7 (55+, mixed gender)				
without washing your hair	1.1 showers			
including washing your hair	3.9 showers			

2.3.2 Hair-washing in the Shower at Home (Perception of Duration)

Hair-washing increases the amount of time spent in the shower, and respondents were well aware of this fact. In addition to gathering information about perceived shower duration, the questions relating to this and the two subsequent activities were formulated so that the CRD could gain insight into what respondents considered reasonable in terms of time spent in the shower. In the CRD's view:

"I'm in and out" should correlate with "less than 5 minutes"

"I shower quite quickly" should correlate with "5 to 7 minutes"

"I spend a reasonable amount of time in the shower" should correlate with "8 to 10 minutes"

"I spend quite a long time in the shower" should correlate with "11 to 15 minutes"

"I spend a long time in the shower" should correlate with "more than 15 minutes"

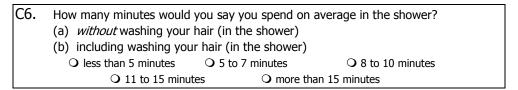


C5.	How would you describe the amount of time you typically spend in the shower at				
home?					
(a) without washing your hair (in the shower)					
	(b) including washing your hair (in the shower)				
	O I'm in and out	O I shower quite quickly			
O I spend a reasonable amount of time in the shower O I spend quite a long time in the shower O I spend a long time in the shower					
					,

C6.	How many minutes would you say you spend on average in the shower?					
	(a) without washing your hair (in the shower)					
	(b) including washing your hair (in the shower)					
	O less than 5 minutes	O 5 to 7 minut	es O 8 to 10 minu	tes		
	O 11 to 15 minu	tes O	more than 15 minutes			

- Overall, there is a shift from describing a shower as being accomplished "quite quickly" to spending "a reasonable amount of time" in the shower when hairwashing takes place.
- In general, there was good correlation between "quite quickly" being seen as "7 minutes or less" and "reasonable" being seen as between 8 and 10 minutes. There were, however, individuals in a number of groups who did not seem to find spending more than 15 minutes in the shower as "a long time"; in fact, some of them even saw this time period as "reasonable."
- ➤ The increase in time for hair-washing was most dramatic among members of Group 4 (18-24, females). The majority (60%) of these women needed less than five minutes for non-hair-washing showers. With hair-washing, 46% required 8 to 10 minutes, and 27% required more than 15 minutes.
- ➤ In Group 3 (18-24, males), hair-washing increased the shower time as well, but none of the men showered for more than 15 minutes.

2.3.3 Hair-washing in the Shower at Home (Averages)



Data from this question were also used to calculate averages for the various respondent characteristics. Readers are cautioned not to interpret these findings as statistically significant, as this information came from a homework <u>questionnaire</u> completed by 76 individuals, not a <u>survey</u> completed by 400 individuals. Averages by gender and age are presented in Table 2-8.



	Table 2-8 Estimated Average Length of Showers with/without Hair-washing					
		Mean Score*	Estimated average time in minutes*			
Gender	Male (n=37)					
	without hair-washing	1.8 (n=17)	5 minutes			
	including hair-washing	2.4 (n=35)	6 to 7 minutes			
	Female (n=39)					
	without hair-washing	2.1 (n=19)	6 to 7 minutes			
	including hair-washing	3.3 (n=39)	9 to 10 minutes			
Age	18 to 24 years (n=43)					
	without hair-washing	1.9 (n=22)	5 to 7 minutes			
	including hair-washing	2.9 (n=41)	8 to 10 minutes			
	25 to 34 years (n=11)					
	without hair-washing	2.2 (n=6)	6 to 7 minutes			
	including hair-washing	3.2 (n=11)	9 to 10 minutes			
	35 to 54 years (n=12)					
	without hair-washing	1.5 (n=4)	4 to 5 minutes			
	including hair-washing	2.4 (n=12)	7 to 8 minutes			
	55 years and older (n=10)					
	without hair-washing	2.5 (n=4)	7 to 8 minutes			
	including hair-washing	2.7 (n=10)	8 to 9 minutes			

^{*} An explanation of how mean scores were calculated may be found in Section 1.3.6; translating the mean scores into minutes was a subjective estimation.

- > Showers both with and without hair-washing were longer for females than for males. Furthermore, when hair-washing was added to a shower, the increase in time was greater for women than for men.
- ➤ Differences on the basis of age are less dramatic. As seen by a greater difference in the mean scores for showers with and without hair-washing, younger individuals tend to take slightly longer when washing their hair in the shower than do older individuals. Overall, however, the average shower that includes the task of hair-washing is between 7 and 10 minutes for all age groups, while the average shower that does not include hair-washing is between 4 to 8 minutes.



2.3.4 Shaving in the Shower at Home (Frequency)

C1. In a typical week (i.e., 7 days), how many times do you shower at home:					
	(c) without shaving (in the shower):	O none	times per week		
	(d) including shaving (in the shower):	O none	times per week		

Some interesting gender differences with respect to shaving in the shower emerged from the responses to the questionnaire. In Group 4 (18-24, females), the number of showers per week that included shaving was approximately the same as the number of showers that did not. In Group 3 (18-24, males), none of the respondents shaved in the shower. Data with respect to shaving in the shower is presented in Table 2-9.

Table 2-9 Shaving in the Shower (Frequency)				
	Average number of times per week			
Group 1 (18-24, mixed gender, living with others)				
without shaving	5.0 showers			
including shaving	1.1 showers			
Group 2 (18-24, mixed gender, most living alone)				
without shaving	4.0 showers			
including shaving	1.0 showers			
Group 3 (18-24, males)				
without shaving	5.5 showers			
including shaving	0.0 showers			
Group 4 (18-24, females)				
without shaving	2.5 showers			
including shaving	2.6 showers			
Group 5 (25-34, mixed gender)				
without shaving	5.7 showers			
including shaving	2.8 showers			
Group 6 (35-54, mixed gender, most with children at home)				
<i>without</i> shaving	3.9 showers			
including shaving	2.2 showers			
Group 7 (55+, mixed gender)				
<i>without</i> shaving	4.3 showers			
including shaving	0.9 showers			



2.3.5 Shaving in the Shower at Home (Perception of Duration)

The questionnaire findings suggest that, as was the case with hair-washing, shaving in the shower increases also the time spent there.

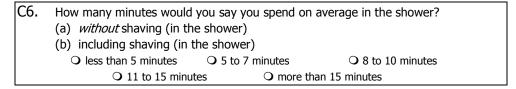
C5. How would you describe the amount of time you typically spend in the shower				
home?				
	O I'm in and out	O I shower quite quickly		
	O I spend a reasonable amount of time in the shower			
O I spend quite a long time in the shower O I spend a long time in the				

C6.	How many minutes would you say you spend on average in the shower? (c) without shaving (in the shower) (d) including shaving (in the shower)			
	O less than 5 minutes O 11 to 15 minute	O 5 to 7 minutes	O 8 to 10 minutes e than 15 minutes	

- Overall, there is again a shift from describing a shower as being accomplished "quite quickly" to spending "a reasonable amount of time" in the shower when shaving takes place.
- As was the case with hair-washing, a number of respondents spend "a long time" in the shower when shaving, and give the time as "15 minutes or more."

One interesting finding that emerged from the data was that among respondents in Group 3 (18-24, males), "reasonable" was correlated with "5 minutes or less" for showers without shaving (none of the individuals in Group 3 shaved in the shower).

2.3.6 Shaving in the Shower at Home (Averages)



As in Section 2.3.3, averages for the various respondent characteristics were also calculated for showers with and without shaving. Readers are reminded that these findings are not statistically significant, as this information came from a <u>questionnaire</u> completed by 76 individuals, not a <u>survey</u> completed by 400 individuals. Averages by gender and age are presented in Table 2-10.

In all cases, the mean scores for showers with or without shaving were higher than those seen in Table 2-8 for showers with or without hair-washing. Thus, although the increased time required for the task of shaving in the shower is similar to the increase required for hair-washing, the "non-shaving" shower is already longer than the "non-hair-washing" shower. This finding might be related to the fact that most



- people wash their hair when they shower and that respondents were factoring that in when they came up with a time for a "non-shaving" shower.
- As reported earlier, more women than men shave in the shower. As shown in Table 2-10, their showering time also increases slightly more than is the case for men when shaving is added to the tasks to be accomplished in the shower. For men, a shower that includes shaving is between 8 and 10 minutes in length, while for women it is between 10 and 12 minutes in length.
- As was the case for hair-washing, the smallest change in average time for showering with and without shaving is seen in the 55+ group.

	Table 2-10 Estimated Average Length of Showers with/without Shaving				
		Mean Score*	Estimated average time in minutes*		
Gender	Male (n=37)				
	without shaving	2.1 (n=33)	6 to 7 minutes		
	including shaving	3.1 (n=11)	8 to 10 minutes		
	Female (n=39)				
	without shaving	2.4 (n=33)	7 to 8 minutes		
	including shaving	3.6 (n=33)	10 to 12 minutes		
Age	18 to 24 years (n=43)				
	without shaving	2.3 (n=36)	6 to 7 minutes		
	including shaving	3.6 (n=25)	10 to 12 minutes		
	25 to 34 years (n=11)				
	without shaving	2.5 (n=11)	7 to 8 minutes		
	including shaving	3.6 (n=7)	10 to 12 minutes		
	35 to 54 years (n=12)				
	without shaving	2.1 (n=10)	5 to 6 minutes		
	including shaving	3.3 (n=9)	9 to 10 minutes		
	55 years and older (n=10)				
	without shaving	2.0 (n=9)	5 to 7 minutes		
	including shaving	2.7 (n=3)	8 to 9 minutes		

^{*} An explanation of how mean scores were calculated may be found in Section 1.3.6; translating the mean scores into minutes was a subjective estimation.

2.3.7 Tooth-brushing in the Shower at Home (Frequency)

C1.	In a typical week (i.e., 7 days), how many times do you shower at home:				
	(e)	without brushing your teeth (in the shower):	O none	times per week	
	(f)	including brushing your teeth (in the shower):	O none	times per week	



Tooth-brushing in the shower is not that prevalent among these respondents. The subject of brushing one's teeth in the shower provoked some commentary during the focus group itself ("that's so gross!", etc.). Very few focus group participants admitted to brushing their teeth in the shower; the results seen in the questionnaire are very different from what one would have gleaned from the groups. Only in Group 7 (55+, mixed gender) did no one brush his/her teeth in the shower. The prevalence of brushing one's teeth in the shower was most common in Groups 5 (25-34, mixed gender) and 6 (35-54, mixed gender, most with children at home).

Table 2-11 Tooth-brushing in the Shower				
	Average number of times per week			
Group 1 (18-24, mixed gender, living with others)				
without brushing your teeth	4.6 showers			
including brushing your teeth	0.9 showers			
Group 2 (18-24, mixed gender, most living alone)				
without brushing your teeth	3.3 showers			
including brushing your teeth	0.9 showers			
Group 3 (18-24, males)				
without brushing your teeth	4.7 showers			
including brushing your teeth	0.7 showers			
Group 4 (18-24, females)				
without brushing your teeth	3.0 showers			
including brushing your teeth	0.7 showers			
Group 5 (25-34, mixed gender)				
without brushing your teeth	4.9 showers			
including brushing your teeth	1.1 showers			
Group 6 (35-54, mixed gender, most with children at home)				
without brushing your teeth	4.1 showers			
including brushing your teeth	1.3 showers			
Group 7 (55+, mixed gender)				
without brushing your teeth	4.6 showers			
including brushing your teeth	0.0 showers			



2.3.8 Tooth-brushing in the Shower at Home (Perception of Duration)

It is difficult to determine the effect that tooth-brushing has on shower duration.

C5.	5. How would you describe the amount of time you typically spend in the shower at home?						
	(e) without brushing your teeth (in the shower)						
	(f) including brushing your teeth (in the shower)						
	O I'm in and out O I shower quite quickly						
	O I spend a reasonable amount of time in the shower						
	O I spend quite a long time in the shower O I spend a long time in the shower						
C6.	How many minutes would you say you spend on average in the shower?						
	(e) without brushing your teeth (in the shower)						
	(f) including brushing your teeth (in the shower)						
	O less than 5 minutes O 5 to 7 minutes O 8 to 10 minutes						
	O 11 to 15 minutes O more than 15 minutes						

In some groups tooth-brushing appears to increase the time slightly, but in others it has no effect. It may have been difficult for respondents to estimate their time for a shower that does not include brushing one's teeth. In any case, the effect of tooth-brushing in the shower seems to have less of an impact on shower duration than does hair-washing or shaving.

Since the number of individuals who brush their teeth in the shower is small, mean scores are not reported on for this shower activity.

2.4 Further Personal Showering Habits

The questionnaire included a number of questions about other personal showering habits of respondents.

2.4.1 "Averageness" of Personal Shower Duration

C7.	7. Do you think the time you personally spend in the shower is?						
	O well above average O slightly above average O about average						
	O slightly below average	O well below average	O couldn't say/no idea				

Similarly to what they were asked to do for their household, respondents were asked to indicate how close to "average" they felt their personal showering time to be. The results are given in Table 2-12.

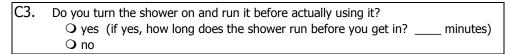
- For the most part, the responses hovered around "about average", with three of the seven groups having the majority of responses in this category.
- ➤ Group 4 (18-24, females) was the only one in which the largest percentage was in the "slightly above average" category.



- The only personal rating of "well above average" was seen in Group 2 (18-24, mixed gender, most living alone), a group that also showed the greatest spread in responses. This finding was confirmed during the focus group; some participants in this group reported extremely long showering times (45 minutes or more).
- A higher number of respondents in Group 7 (55+, mixed gender) was unable to judge how close to "average" their showering times were.

Table 2-12 Perception of Length of Time Respondent Personally Spends in Shower							
Well Slightly About above average average Slightly below average average average average average in							
Group 1 (18-24, mixed gender, living with others)	0%	18%	64%	18%	0%	0%	
Group 2 (18-24, mixed gender, most living alone)	10%	10%	60%	10%	10%	0%	
Group 3 (18-24, males)	0%	18%	36%	27%	18%	0%	
Group 4 (18-24, females)	0%	36%	27%	27%	9%	0%	
Group 5 (25-34, mixed gender)	0%	9%	55%	18%	18%	0%	
Group 6 (35-54, mixed gender, most with children at home)	0%	25%	42%	17%	8%	8%	
Group 7 (55+, mixed gender)	0%	0%	40%	20%	0%	40%	

2.4.2 Running the Water Before Using Shower



Respondents were asked if they turned the shower on and ran it before actually using it. If they did so, they were asked to estimate how long the water ran before they entered the shower. Their responses are summarized in Table 2-13. The majority of people in the groups other than Groups 3 (18-24, males) and 6 (35-54, mixed gender, most with children at home) ran the water before using the shower. The average time that the water ran was generally under two minutes. Only in Group 6 (35-54, mixed gender, most with children at home) was the average higher than two minutes.



Table 2-13 Running Water Before Using Shower					
	Proportion saying "Yes"	Average time water is running (minutes)*			
Group 1 (18-24, mixed gender, living with others)	55%	1.00			
Group 2 (18-24, mixed gender, most living alone)	60%	1.17			
Group 3 (18-24, males)	36%	1.25			
Group 4 (18-24, females)	73%	1.50			
Group 5 (25-34, mixed gender)	73%	1.38			
Group 6 (35-54, mixed gender, most with children at home)	25%	2.33			
Group 7 (55+, mixed gender)	60%	1.33			

Note: Given the small increments reported on here, the data was left with two decimal places.

2.4.3 The Turn-on/Turn-off Method of Showering

C4.	Do you practise the "turn on/	turn off" method of showering?	
	O yes	O no	

Not many respondents practised the on/off method of showering. During the focus groups, many said that they had never even heard of it.

- None of the respondents from Groups 1 (18-24, mixed gender, living with others) and 2 (18-24, mixed gender, most living alone) used the on/off method of showering.
- ➤ In each of Groups 3 (18-24, males), 4 (18-24, females), 6 (35-54, mixed gender, most with children at home), and 7 (55+, mixed gender), only one person practised this method of showering.
- Respondents in Group 5 (25-34, mixed gender) had the highest rate of on/off showering, with three of them stating that they used this method. One of these individuals grew up in Europe, where the method is common.

2.4.4 Showering Elsewhere

C2.	How many times do you showe	er somewhere else	(e.g., at a gym/fitness facility, the
	office/work, other)?	O none	times per week

In a typical week, respondents did not often shower outside the home. As shown in Table 2-14, the average number of showers per household taken elsewhere was never higher than once a week.



Table 2-14 Number of Showers Taken Elsewhere (per week)				
	Average			
Group 1 (18-24, mixed gender, living with others)	0.9			
Group 2 (18-24, mixed gender, most living alone)	0.4			
Group 3 (18-24, males)	0.8			
Group 4 (18-24, females)	0.6			
Group 5 (25-34, mixed gender)	0.7			
Group 6 (35-54, mixed gender, most with children at home)	0.9			
Group 7 (55+, mixed gender)	0.3			

Overall only 19 of the 76 questionnaire respondents reported taking showers outside the home. These 19 people were asked the following question.

- Thinking about when you shower somewhere else (e.g., at a gym/fitness facility, the office/work, other), which of the following statements best describes the length of your shower? O My showers are always the same length whether I shower at home or elsewhere. O My showers are generally shorter when I shower elsewhere. O My showers are generally slightly longer when I shower elsewhere.

 - O My showers are generally much longer when I shower elsewhere.
 - O Couldn't say / no idea

For most people who showered elsewhere (11 of the 19), their showers elsewhere were shorter than those taken at home. During the focus groups participants commented that they were "not as comfortable" when showering somewhere else, or that they had concerns about the cleanliness of the showers and "just wanted to get the job done and get out of there." Just over one third of respondents (7 of the 19) said that there was no difference in shower length on the basis of where the shower was taken. Only one respondent in Group 3 (18-24, males) indicated that his shower was slightly longer if taken elsewhere.

2.4.5 Showers on Weekends

C9.	. Are your showering habits different on weekends?			
	O no	O yes; please tell us how		

Respondents were asked whether their showers were different on weekends. The findings are presented in Table 2-15.

For most groups, the majority of respondents said that their showers were no different on weekends than on weekdays.



- ➤ Only in Groups 2 (18-24, mixed gender, most living alone) and 6 (35-54, mixed gender, most with children at home) were respondents evenly divided between their showers being no different and being different on weekends.
- Respondents in Groups 3 (18-24, males) and 7 (55+, mixed gender) were least likely to shower differently on weekends.

Table 2-15 Differences in Showers on Weekends					
No different Different					
Group 1 (18-24, mixed gender, living with others)	64%	36%			
Group 2 (18-24, mixed gender, most living alone)	50%	50%			
Group 3 (18-24, males)	91%	9%			
Group 4 (18-24, females)	73%	27%			
Group 5 (25-34, mixed gender)	55%	46%			
Group 6 (35-54, mixed gender, most with children at home)	50%	50%			
Group 7 (55+, mixed gender)	90%	10%			

Respondents who said their showers *were* different on weekends provided the following comments:

- ➤ Of the nine individuals who said that the **length of their shower** was different on weekends, only one of them said it was shorter. Most respondents admitted that they spent more time in the shower on weekends.
- Seven individuals said that because they were not on the same schedule on weekends, their showers tended to take place at different times of the day.
- Four respondents said they took **extra showers** on the weekend, and four said that they **omitted showers** on the weekend.



SECTION 3: FOCUS GROUP FINDINGS

3.1 Perceptions of Showering

In the first activity of the focus group, participants were asked to complete the sentence "For me a shower is . . ." Their verbatim responses are given in Appendix G.

- Cleanliness was a common theme in the responses of the various participants.
- Many said it was a necessity, some even specifying that it was a <u>daily</u> necessity.
- Some participants were explicit about showering being something quick.
- Relaxation, using a shower to unwind, and simple enjoyment were also frequently mentioned.
- Surprisingly, seeing a shower as a tool for waking up in the morning was mentioned by only a few participants in their sentence completion. A small number of them mentioned it during the discussion.

Participants were also asked about how the sentence would be different for showers at different times of day.

- Morning showers tend to be shorter, owing to time pressures (needing to be at work or school at a certain time, needing to catch a bus, having "hit the snooze button once too often", etc.).
- Evening showers are sometimes used to "wash away the day" and are therefore slightly longer. There are also no time restraints in the evening, which can also result in a longer shower. A few evening-showering participants, however, said that if they were really tired at the end of the day, their shower was short.

Differences between weekday and weekend showers were also explored.

- Many of the 18 to 24 year-olds said that their shower takes place at a different time of day on weekends. They can be more flexible if they do not have to be somewhere at a specific time.
- ➤ For the same reason (not having to be somewhere), many said their shower was longer on weekends. One participant commented about her boyfriend: "If he doesn't have to go to work, he takes forever in the shower." Participants also said that the lack of time pressure made the showers more relaxing. A participant in Group 2 (18-24, mixed gender, most living alone) made the following comment: "I would say [my showers on weekends are] longer, [I shower] probably three times a day. If I am home all day I will probably shower a couple of times, because it is relaxing."



- A small number of people said that they took fewer showers on weekends. Their responses ranged from "I'm a slob on weekends [i.e., no showers]" to reducing the number of showers from three a day to two a day.
- ▶ Participants in the older groups (Group 6 35-54, mixed gender, most with children at home and Group 7 55+, mixed gender) were less likely to cite differences between weekend and weekday showers. For some, the pressures of family life made weekends no different from weekdays. For those who were retired, the contrast between weekdays and weekends was all but eliminated as well.

Only in Group 6 (35-54, mixed gender, most with children at home) was there a significant number of participants with children and adolescents still living with them. Among those who commented on their children's showering habits, the trend was that girls tended to take longer in the shower and boys had to be pushed to shower at all (adolescent sons would have ended the sentence "for me a shower is . . ." with the word "mandatory").

3.2 Factors Determining Shower Length

In the second activity, participants were each given three cards of different colours, and asked to write down the three most important considerations that determine the length of their showers. Reproductions of their cards are provided in Appendix G. The findings are discussed in the following sections.

3.2.1 Cleanliness and Required Tasks

The two activities that participants most frequently cited as determining the length of their shower were "cleanliness" and "what needs to be accomplished during the shower." During the focus groups (and in the data tabulations presented in Appendix G), these were separated into two categories, but the difference between them was often blurred. For example, the two items "How dirty I feel I am" and "If I need to wash my hair or shave" are unambiguous – the first would be categorized as "cleanliness", the second as "what needs to be accomplished during the shower." But the items, "Have I gotten sweaty today" and "Cleaning body with soap" are harder to assign to a single category. In Group 3 (18-24, males), one young man wanted "Getting clean – no bacteria, no body odour" categorized as "cleanliness", while another wanted "Getting clean – no dirt" categorized as "what needs to be accomplished during the shower." A summary of the findings with respect to these two considerations is given in Table 3-1; the verbatim responses on the cards are provided in Appendix G.



Table 3-1 Shower Tasks and Cleanliness					
	Required Tasks	Cleanliness	Both summed	Frequency	
Group 1 (18-24, mixed gender, living with others)	10	5	15	Most frequent	
Group 2 (18-24, mixed gender, most living alone)	7	2	9	Most frequent (but only if summed)	
Group 3 (18-24, males)	4	6	10	Most frequent (but only if summed)	
Group 4 (18-24, females)	15	0	15	Most frequent	
Group 5 (25-34, mixed gender)	7	3	10	Most frequent	
Group 6 (35-54, mixed gender, most with children at home)	7	0	7	3 rd most frequent	
Group 7 (55+, mixed gender)	8	3	11	Most frequent	

- There is some variation from group to group, but overall what needs to get done in terms of getting cleaned up and/or getting certain tasks accomplished (hair-washing, shaving, etc.) were the most frequently cited determinants of shower length.
- In Groups 2 (18-24, mixed gender, most living alone) and 3 (18-24, males), cleanliness and required tasks needed to be summed to move into first place. Group 6 (35-54, mixed gender, most with children at home) was the only group in which another consideration was more important in determining shower length, namely water availability.
- Participants were very direct about these two related considerations: "I have a regular routine, and at the end of it, I'm clean" and "That is without a doubt the only deciding factor for me, how long it is going to take to do what I'm going there for."

3.2.2 Time Constraints

"Time constraints" was the second most frequently-cited determinant of shower length. The data are presented in Table 3-2.

- In most groups, time constraints were in first or second place in terms of frequency. The importance assigned to "time constraints" however, varied somewhat from group to group. Participants in Groups 2 (18-24, mixed gender, most living alone), 3 (18-24, males), and 7 (55+, mixed gender) were more likely to say that time constraints were the most important consideration than were participants in other groups.
- Many participants commented on time constraints: "I have 7 minutes to get downtown and I am hoping that the bridge isn't up; that influences how long I'm in the shower" and "If you wake up late, you have to have a quick shower and run out the door."



Table 3-2 Time Constraints						
	Most important	Second most important	Third most important	Number of times cited	Frequency	
Group 1 (18-24, mixed gender, living with others)	0	1	4	5	4 th most frequent	
Group 2 (18-24, mixed gender, most living alone)	4	2	2	8	Most frequent	
Group 3 (18-24, males)	4	1	2	7	Most frequent	
Group 4 (18-24, females)	3	2	5	10	2 nd most frequent	
Group 5 (25-34, mixed gender)	1	3	3	7	Most frequent (tie)	
Group 6 (35-54, mixed gender, most with children at home)	3	3	2	8	2 nd most frequent	
Group 7 (55+, mixed gender)	3	1	2	6	2 nd most frequent	

3.2.3 Relaxation or Stress Therapy

The CRD had expressed great interest in determining to what extent people used showers as a form of relaxation/stress therapy. Table 3-3 presents the relevant findings.

- ➤ Despite numerous comments in other activities about how relaxing showers were, mood or the need for stress therapy as determinants of shower length were not cited as often as one would expect. It was tied for second place in Group 1 (18-24, mixed gender, living with others), tied for third place in Group 3 (18-24, males), and in third place in Groups 2 (18-24, mixed gender, most living alone) and 5 (25-34, mixed gender). It was cited only once in Groups 6 (35-54, mixed gender, most with children at home) and 7 (55+, mixed gender), i.e., groups in which the participants were over the age of 35.
- ➤ The consideration never came up at all in Group 4 (18-24, females). This should not, however, be interpreted as typical of all women, as many women in other groups said they used showers to unwind or relax. The Group 4 women were simply more focussed on time constraints and what needed to get done in the shower.
- A shower as mood improvement/stress therapy seemed to be most important to participants in Groups 1 (18-24, mixed gender, living with others) and 2 (18-24, mixed gender, most living alone). The consideration was listed five and four times, respectively, and participants in these two groups were more likely to say that it was the most important consideration in determining the length of their showers.



During discussion, participants in other groups also talked about the psychological benefits of shower: "You feel that you can get in the shower and just wash away the gloom."

Table 3-3 Shower as Relaxation/Stress Therapy					
	Most important	Second most important	Third most important	Number of times cited	Frequency
Group 1 (18-24, mixed gender, living with others)	2	1	2	5	2 nd most frequent (tie)
Group 2 (18-24, mixed gender, most living alone)	2	1	1	4	3 rd most frequent
Group 3 (18-24, males)	0	1	3	4	4 th most frequent
Group 4 (18-24, females)	not applicable	not applicable	not applicable	none	Not cited
Group 5 (25-34, mixed gender)	1	1	2	4	3 rd most frequent
Group 6 (35-54, mixed gender, most with children at home)	0	0	1	1	Only cited once
Group 7 (55+, mixed gender)	0	1	0	1	Only cited once

3.2.4 Other Considerations

A number of other determinants of shower length were mentioned, but not as frequently.

- Conservation was not a big factor in determining shower length, coming up in only three groups: Groups 1 (18-24, mixed gender, living with others), 2 (18-24, mixed gender, most living alone), and 7 (55+, mixed gender).
- Saving money, too, did not impact showering time. Only one person in Group 5 (25-34, mixed gender) mentioned cost as a consideration. Participants whose rent included water and hydro did admit, however, that if they were paying for these items directly, their showers would be shorter. When hot water is part of the rent package, it is seen as "unlimited" and there is nothing to motivate people to conserve it.
- ➤ Using the shower for physical therapy was mentioned by participants in a number of groups: Groups 2 (18-24, mixed gender, most living alone), 3 (18-24, males), 5 (25-34, mixed gender), and 7 (55+, mixed gender). Showers were longer when used to alleviate muscle soreness after playing sports, making one feel better if one were ill (flu or cold), or aiding with the aches and pains of aging.



➤ Hot water availability was a consideration in larger households. In Group 6 (35-54, mixed gender, most with children at home), which contained a large number of participants with families, it was the most frequently cited consideration. A few participants in Groups 1 (18-24, mixed gender, living with others), 2 (18-24, mixed gender, most living alone), 5 (25-34, mixed gender), and 7 (55+, mixed gender) also mentioned the availability of hot water: "Making sure that [my roommates] have enough hot water so that they can have a two-minute shower. My place has such a small amount of hot water. It is about being quick for that reason."

3.3 Influencers on Length of Shower

The third activity of the focus group involved exploring what people in the participants' lives determined their views on the various factors from the preceding activity. It was hoped that participants would provide information on the influence of peers, parents (if living at home), upbringing, popular figures on TV or in movies, other media influencers (TV shows, etc.), popular environmental activists, etc.

For the most part, this activity did not yield as much information as expected. Either participants were unwilling to admit that anyone influenced them, or the influencers were so subtle that participants were not aware of them. Nevertheless some trends were evident:

- ▶ Basic cleanliness and "not wanting to be that smelly person on the bus" was an important influencer. While one participant in Group 1 (18-24, mixed gender, living with others) said that "society places a huge importance on cleanliness", others felt that they knew best whether or not they were clean. In Group 3 (18-24, males), however, the participants took a poll to see who had showered before coming to the focus group. When everyone put up their hands, one participant said: "There you go! Societal is right."
- ➤ Parents and family were cited as important influencers. Several participants mentioned parents who talked about the size of the water bill, or complained about the energy costs ("my dad, because he is the one that is paying the bills and he usually yells at me if I am any longer than five minutes"). In some cases, parental nagging about shorter showers resulted in people showering longer when they were no longer living at home: "When I lived with my parents, they definitely criticized me for hanging out in the shower too long. Now that I don't [live with them], I'm rebellious − I do it a lot!" For the most part, however, it seems that the positive influence remained active even when people had moved out of their parents' homes. Participants in Group 6 (35-54, mixed gender, most with children at home) who had children/adolescents living with them remarked: "I would be my kids' influence." Older participants also cited their spouses as influencers.



- > The constraints of the hot water tank were a factor. If other family members or roommates ended up having to take a cold shower because all the hot water had been used, there would be trouble in the household. Participants said they had to learn to "tone it down" so that "no one would have to take a cold shower."
- > Travel was also an influence. Participants who had visited or lived in arid regions of the world said that they became much more aware of water use and learned to take shorter showers.
- A few negative influencers were mentioned as well. One participant said that she learned to take long showers by seeing how her fellow boarding school students spent "forever" in the shower. Several female participants talked about their hairdressers telling them to leave the conditioner in their hair for 15 minutes, a practice that would significantly extend hair-washing showers.
- ➤ Participants in Group 7 (55+, mixed gender) were the least able to come up with influencers on their behaviour: "I can't think of any outside forces or people." Many of them did not grow up with showers and spoke fondly of their introduction to this form of cleansing: "That is where I first discovered the shower. After that I was lost. I spent a lot of time in showers there and loved them ever since."

3.4 Exploring Changes to Showering Behaviour

For the fourth activity, participants were shown a slide with four possible ways of reducing water consumption when showering. Participants were asked to assign each of the behavioural changes to one of the following four categories: (1) Would be willing to change, (2) Might be willing to change, (3) Would not be willing to change, and (4) Not applicable; already do this.

Table 3-4 presents a quantitative snapshot of the findings for this activity. When all focus group participants are combined, it becomes apparent which practices for reducing the amount of water consumption when showering could be explored.



Table 3-4 Overall Potential for Changing Behaviour (proportion of all focus group participants combined)								
	Would be willing to change	Might be willing to change	Would NOT be willing to change	Not applicable (already doing)				
Take fewer showers overall	16%	19%	49%	16%				
Take shorter showers	37%	21%	10%	33%				
Start practising the turn on/turn off method of showering	19%	33%	33%	14%				
Avoid running the shower before actually using it	24%	22%	13%	41%				

3.4.1 Taking Fewer Showers Overall

The highest resistance to change was seen for the option of taking fewer showers overall.

- Almost one-half of all participants stated that they would be unwilling to change in this regard. Only just over one-third of participants would or might consider taking fewer showers overall, with more of them falling into the "might" category. Groups 1 (18-24, mixed gender, living with others), 3 (18-24, males), 4 (18-24, females), 5 (25-34, mixed gender) and 6 (35-54, mixed gender, most with children at home) were particularly resistant: "I shower because I need to shower, and I feel like it would be disrespectful to the people around me to shower less than I do."
- A number of participants felt that they already do take fewer showers. Among older participants this was indeed true. In Group 6 (35-54, mixed gender, most with children at home) one participant only showers every second or third day. In Group 7 (55+, mixed gender) one participant said: "I only take one shower a week."
- Motivating people to change their behaviour in this area would be difficult. In the event of a severe water shortage or with a change in profession, there would be more willingness to give up a few showers. But overall, there was a perception that a daily shower was the absolute minimum that one could get away with.

3.4.2 Taking Shorter Showers

Participants were more willing to consider taking shorter showers.

➤ This option had the highest proportion of people saying that they would or might consider it. Furthermore, it was the only water reduction option for which more people said they <u>would</u> consider changing (37%) than merely "might" consider changing (21%).



- ➤ A number of participants said they already do take short showers. In discussion, it emerged that their showers were actually under five minutes in length.
- Participants who said they "might" consider changing to shorter showers provided a few other motivators besides the ubiquitous "if there was a water shortage" and "if I were paying for it myself." One participant said: "if I always acted like I was late, my showers would be shorter", while another cited "less stress", and one said "if there were another way to relax."
- Nevertheless, there is definitely scope for changing behaviour with respect to shower length. This option was characterized by the lowest proportion of participants saying that they would not consider changing. Only a few participants were unwilling to change, making comments like: "I do what I have to do and I get out. That is it." or "It would compromise what I am trying to do in the shower."

3.4.3 Using the Turn on/Turn off Method

The on/off method of showering was new to many of the participants, but promotion of this method of showering could meet with some success.

- ➤ More than one-half (52%) of participants would (19%) or might (33%) consider changing in this regard. It should be noted, however, that the proportion of "might" individuals was higher than the proportion of "would" individuals. Furthermore, one-third of all participants stated quite firmly that they would not be willing to adopt this behaviour.
- The highest resistance to change for this option was seen in Groups 2 (18-24, mixed gender, most living alone) and 7 (55+, mixed gender). One member of the latter group actually got into quite a rant about the CRD sending mixed messages: "[Conserving water] is not a necessity. We have water everywhere. They are complaining that they are not selling enough water.") One participant said: "Life has so few pleasures. I can't see myself running it, shampooing my hair, turning off, soaping myself, turning it on. It is too much of a hassle." People also complained that having to worry about turning the water on and off would eliminate the relaxation factor.
- There were two primary obstacles to participants implementing this method of showering. Many participants were worried about getting cold when the water was not running: "Maybe during the summer, but in the winter, the bathroom is pretty cold." The other determining factor was how easy or complicated it was to turn the water on and off. Many participants would require hardware replacement to make this a feasible option for them.



- ➤ The importance of warmth is illustrated by a comment made in Group 4 (18-24, females): "I never really heard of it until I came here tonight. I think it is an ingenious idea. The bathroom is pretty small and warm. All the heat is retained."
- Some of the participants who already practise this method learned it in other countries or in situations where some factor limited the water supply or the number of shower stalls available.

3.4.4 Avoiding Running the Shower Before Using It

This option was a bit complicated to explain to participants. From the discussion, it was clear that many of them had not considered that warming up the shower wasted water. They were given some examples of how they could save water, including (a) showering in tandem, so that only one person wastes water warming up the shower, (b) jumping into the shower while the water was still cold, or (c) collecting the water in a bucket while it was warming up and using it for plant watering or to fill up the toilet tank.

- ➤ There were a lot of participants who said they already do avoid running the shower before using it (41% overall). Most of them said that their water is already hot or takes only a few seconds to warm up. A very small number of participants shower one after the other, so that only one person is warming up the water. One hardy person said the cold water at the beginning was good for waking up.
- Participants who expressed some willingness to change were evenly split between the "would" and "might" categories (33% each). Some of the participants were quite intrigued by the method of catching the water in a bucket ("I like the idea about catching the water. I think it is genius to put it in the toilet. Something like that, I could totally see myself doing."); others said it would be way too much work. Very few were willing to put up with the cold water at the beginning.

3.5 Estimating Showering Time

The fifth activity of the focus group included a discussion of what an average shower time was and the presentation of various devices for timing showers or saving water during showering.

3.5.1 Participants' Views on an "Average" Showering Time

The activity opened with a discussion of how participants had come up with their idea of an average shower time when they were answering the two "averageness" questions in the homework questionnaire. The most creative response was: "I envisioned a gender-androgynous, middle-aged person that kind of cares about the environment."

➤ The averages cited by respondents varied considerably. Some gave 5 to 7 minutes as the average shower time, others cited 15 to 30 minutes. Some participants



- expressed surprise at the averages of others: "I thought I was below average, but when I listen to what everybody else is saying, I realize that I'm actually above."
- Most participants seem to have simply guessed when coming up with an average. Some, however, were able to be more specific, citing visits to friends and noticing how long they shower. For some, the average was a blend of what they remembered from living at home and the current behaviour of their roommates. Some assumed that "most people are like me" and "I'm a pretty average guy" so their average was what they themselves do.
- ➤ In a number of groups: Groups 2 (18-24, mixed gender, most living alone), 3 (18-24, males), 4 (18-24, females), and 6 (35-54, mixed gender, most with children at home), participants specifically articulated that the average shower was longer for women than for men. They ascribed this to the fact that most men do not need as much time to wash their hair. According to the findings from the homework questionnaire, they are correct in these perceptions. Women take longer than men in the shower (when they are washing their hair or when they are shaving, but the difference between the average time is greater for hair-washing (see Tables 2-8 and 2-10 in the preceding section of the report).
- ➤ In Group 1 (18-24, mixed gender, living with others), several participants said that they monitor their time by limiting the shower to "two songs."

3.5.2 Opinion About Shower Monitors and Other Water-Saving Devices

Participants were then introduced to a number of monitors and other water-saving devices. They were asked to choose which one would be best for them and to rate how likely it was that it would change their showering behaviour.

- ➤ With the exception of Group 2 (18-24, mixed gender, most living alone), the **CRD waterproof timer** was the most popular item. It received the highest number of votes overall from all other groups. It also scored well in terms of changing behaviour, ranging from a low of 6.3 in Group 7 (55+, mixed gender) to a high of 9.0 in Group 1 (18-24, mixed gender, living with others); the maximum possible score was 10.
- Many participants wanted to use the timer to see if their showers were really as long or short as they thought they were.
- The simplicity of the timer was attractive. There was nothing complex about installing it or about using it. The fact that it could count up or count down was also



Installation: Attaches to shower wall with a suction cup.

Operation: Start timer when you begin your shower. Stop timer when you're done.



cited as a positive feature.

- Some participants appreciated that the timer did not try to train them (e.g., by cutting off the water). One participant said: "I thought it was a non-obtrusive way of knowing how long you are taking showers and you can train yourself."
- > The water pebble was only popular with the participants in Group 2 (18-24, mixed gender, most living alone), where it received three votes. In the other groups it received no votes (Group 5 – 25-34, mixed gender), only one vote (Groups 3 - 18-24, males, 4 - 18-24, females, 6 - 35-54, mixed gender, most with children at 24, mixed gender, living with others). In terms of changing behaviour the scores ranged widely, from a low of 2 in Group 3 (18-24, males) to a high of 10 in Group 6 (35-54, mixed gender, most with children at home).
- Participants who chose the water pebble liked it "because it is interesting and would keep me engaged"; some found it "clever." They also liked the idea of having a little competition with it. One participant said that she often spent the first part of her shower "pondering things" rather than actually showering and felt that the water

pebble would "motivate me to hurry up and get going."



Installation: Place in shower near drain. **Operation**: The device is activated by contact with water. At first the lights flash green. After two minutes the lights start flashing yellow. After four minutes the lights start flashing red, telling you it's time to get out!

- Some participants liked the water pebble because it was silent (as opposed to a timer that beeps); others said they would find the blinking lights annoying. One participant said: "You don't have to do anything to start it, or end it. It would just lie at the bottom of the shower and give you information."
- > Some participants objected to the training aspect of the pebble; they did not want to feel like some device was working on changing their behaviour: "There is probably a minute or two of just standing there and soaking which I could shave off, [but] I don't need a pebble thing to shave it off for me." One participant said: "I don't like the idea of [devices] that have an element of being a nanny." Another said that "the pebble would give me stress and anxiety."
- A few of the parents in Group 6 (35-54, mixed gender, most with children at home) thought that the water pebble might be an attractive option for their children who would find the flashing lights "neat."



- > The **shower volume control** was also not popular. It got the most votes (two) in Group 7 (55+, mixed gender). In Groups 1 (18-24, mixed gender, living with others), 2 (18-24, mixed gender, most living alone), 3 (18-24, males), 4 (18-24, females), and 6 (35-54, mixed gender, most with children at home) it received one vote. No one chose it in Group 2 (18-24, mixed gender, most living alone). Participants in Groups 1 (18-24, mixed gender, living with others) and 5 (25-34, mixed gender) gave the device low scores for changing behaviour, making one wonder why they chose it in the first place. For participants in Groups 3 (18-24, males), 4 (18-24, females), 6 (35-54, mixed gender, most with children at home), and 7 (55+, mixed gender), the ratings were much higher.
- > The device was appealing to people who were do not have a single lever considering adopting the on/off method of showering. or knob, it can be used to make the on/off method They found it "small, relatively easy to install, of showering more unobtrusive visually and does the job of cutting off the convenient. water so that I can shampoo and then have it the right temperature when I turn it on again." Another participant said: "I could do the on/off without having to worry about the water going cold and taking time to heat up."
- Only in Group 6 (35-54, mixed gender, most with children at home) had a number of participants heard of or seen this device before. One said that "pretty much every hotel" in California has these kinds of on/off valves.



Installation: The showerhead is taken off and the volume control is inserted between the showerhead and the water supply pipe.

Operation: The device is used to manually control the amount of water flowing (from a drizzle to full on). For showers that



- Find the shower manager was chosen by two people in Groups 1 (18-24, mixed gender, living with others), 2 (18-24, mixed gender, most living alone), and 6 (35-54, mixed gender, most with children at home), and one person in each of Groups 3 (18-24, males) and 5 (25-34, mixed gender). The scores for "likelihood of behaviour change" were quite high for all participants who chose this device except for those in Group 2 (18-24, mixed gender, most living alone). In the latter group the participants chose the shower manager primarily because they did not like any of the other options; they were not particularly enthusiastic about it, though.
- Among the other participants, one liked the fact that the time could be changed from 11 to 8 to 5 minutes: "It would be more of a comfortable transition."

 Another felt it would be motivating: "I would get frustrated enough and get out."
- The shower manager was very popular with parents; two further participants in Group 6 (35-54, mixed gender, most with children at home) said that they would choose this device for their families ("teenagers need something more absolute [than a timer]"). One man made a note of the website at the end of the focus group and walked out talking about how he could train his wife to take shorter showers. The younger participants also commented on how this device would be good for parents of teens.
- Many of the participants who did not choose the shower manager for themselves felt that it would be very effective for people they live with (citing mothers, siblings and roommates). A few of them, however, felt it would be "mean" to install such a device.



Installation: The showerhead is taken off and the manager is inserted between the showerhead and the water supply pipe. **Operation**: The shower manager is controlled by passing a magnet across a specific point. The number of passes determines the length of the shower. Once the time is up, the flow decreases to a drizzle enough to rinse off, but not enough to make people want to linger in the shower.

Full Flow



Cut Flow





➤ Only one participant in all the groups chose the shower start (Group 3 – 18-24, males). The reason he provided was: "I have the tendency to leave my shower on for a little bit longer than I should." He gave it a score of 9 out of 10 for likelihood of changing his behaviour. One participant in Group 4 (18-24, females) said: "I turn on my shower and then take out my hair, get out my make-up or brush my teeth or something. And I guess when it is warm." She might benefit from a device like this one, but she did not choose it.



Installation: The showerhead is taken off and, the "showerstart" is inserted between the showerhead and the water supply pipe.

Operation: Turn on shower to warm up water. When the water temperature reaches 95°F/35°C the flow is reduced to a trickle. When you get into the shower, you pull the cord for full flow to resume.

3.6 Opinions About Various CRD Messages

The final activity of the focus group consisted of message testing. The CRD provided four messages (three of them in two formulations). Participants were asked whether this information was new to them, how believable they found it, and whether it would have an effect on their showering behaviour. In general, Group 1 (18-24, mixed gender, living with others) was the most willing to change showering behaviour based on these messages and Group 7 (55+, mixed gender) was the least willing to change.

3.6.1 Message 1 (Shorter, cooler showers)

Two forms of a message about the benefits of shorter, cooler showers were tested:

- **1A.** Quicker, cooler showers are better for the health of your hair and skin.
- **1B.** Scientists have found that long, hot showers dehydrate your skin; so make it speedy and lukewarm for a youthful complexion.

The findings are summarized below:

- ➤ There was a fair bit of variation among the groups with respect to having heard this information before. In some groups, more than 75% of participants reported having heard it before, but in others as few as 25% had heard it before.
- ▶ Participants generally found the information believable to fairly believable. Only among older participants (Groups 6 35-54, mixed gender, most with children at home and 7 55+, mixed gender) did the proportion of people saying it was "not at all believable" rise above 30%.



- Several participants had heard about the benefits of cooler water from their hairdressers (or friends/family members who were hairdressers), and seemed to ascribe greater credibility to hairdressers than to scientists. One man had heard this information from his wife and said he believed her over any scientist.
- There was some discussion about which form of the message was better. In general, Message 1B fared better than 1A. Only Group 6 (35-54, mixed gender, most with children at home) preferred the shorter formulation. One participant in Group 1 (18-24, mixed gender, living with others) summed it up as follows: "I'm studying health promotion and people are less likely to make behaviour changes if you are just talking about health and stuff. If you put in the fear factor, like dehydration of your skin, it seems more of a reform message." One participant in Group 3 (18-24, males), felt that the benefits described would be more important to "people who are conscious of their hair and skin females."
- There were, however, a number of words in Message 1B that triggered reactions from participants. The word "youthful" proved to be a stumbling block for many participants: "a little bit over the top", "it felt a little gimmicky", and "it is saying that as women are aging, we are degrading and have less value in society, and all that. I don't like that one because it has a value judgment." Participants thought "youthful" should be removed from the message. The participants in Group 4 (18-24, females) were particularly offended by that word. The only group in which the word "youthful" had some appeal was Group 6 (35-54, mixed gender, most with children at home), but only among the women in the group.
- ➤ The inclusion of "scientists" in Message 1B also sparked some discussion. Among the younger groups, students generally wanted more details such as a citation of a specific study. Non-students were more likely to feel that "scientists" gave the message more clout. Among older participants, reactions to the word "scientists" were more mixed.
- Group 4 (18-24, females) summed up how Message 1B should be changed to make it more effective: "include a real citation, get rid of 'youthful', and keep the actual benefit, namely the prevention of dehydration."

Neither of the formulations of this message was particularly effective in motivating behavioural change. Message 1B was slightly better (in one group it received a score of 6.1 out of 10 for likelihood to cause participant to change his/her behaviour), but when averaged over all groups, neither message even managed to score as much as 5 out of 10.



3.6.2 Message 2 (The challenge of a four-minute shower)

A shorter and a longer form of a message about taking the challenge of reducing one's showering time to four minutes were tested:

2A. The average person showers for 4 minutes. Do you? Take the challenge.

2B. The average person showers for 4 minutes. Do you? Cutting the length of time in the shower helps to save water and energy. Take the challenge.

This message did not fare well in either the long or the short form. Participants simply did not buy it. Some objected to the "challenge" part of the message.

- ➤ The majority of participants in all groups said the information in Message 2A was new to them. For Message 2B, more participants said that they had heard this information before. This shift was likely influenced by the addition of the sentence about saving water and energy.
- ➤ The additional sentence also seems to have had a significant effect on the believability of the message. Participants found Message 2A much less believable than Message 2B. One participant in Group 2 (18-24, mixed gender, most living alone) said: "I agreed with half of it, that it will save water and energy. That is just a fact. But I don't believe the four minutes." The believability of this message (in either form) had been undermined to some extent by the preceding activities in the focus group. There was a general sense that few people showered for four minutes and to come up with an average of four minutes "they would have to have a lot of people showering less than four minutes" or "there would have to be a lot of people who are only taking 1-minute or 30-second showers." One participant said: "It also contradicts itself. It says it is the average person, so why would anyone need to take a challenge if it is already average?"
- ➤ In addition to the believability of the four-minute average, this message was also plagued by the problem that some participants were put off by the word challenge: "Do you know how many challenges there are these days?" Response to the challenge aspect of the message was quite mixed. Some participants liked it and thought "it would be fun to try," while others said: "Take the challenge, try to be better than average that didn't motivate me. What motivates me is to remind me to save water and to save energy." The participants in Group 7 (55+, mixed gender) were the least likely to be motivated by a challenge.
- ➤ The worksheet responses indicated that the addition of the information about saving water and energy contributed to the effectiveness of the message. Some



participants admitted that "saving water and energy" was obvious; they still thought it would give people that extra nudge ("it is not necessarily information that people don't have already, but it is a good reminder"). Some, however, felt that adding the sentence about saving water and energy was "pointless" and akin to saying "driving your car less will save you gas;' that is super obvious."

The participants in Groups 3 (18-24, males) and 4 (18-24, females) had a lively discussion about how this message could be improved and decided that the CRD should present an ideal rather than an average time for which people should strive.

Message 2A received the lowest scores for motivating behavioural change of all the messages tested (4.0 out of a possible 10). Despite its still containing the objectionable "4-minute shower norm" assertion, participants were more likely to say that Message 2B would motivate them to change (5.0). Nevertheless, neither formulation of this message managed to score above 5 out of 10.

3.6.3 Message 3 (Shorter showers mean time for other activities)

The third message only had one formulation:

A shorter shower means: more time in bed, time to have breakfast, avoid the travel rush, less hassle from family or roommates. What does it mean to you?

Participants had a number of comments about this message:

- > Whether or not participants had heard this information before varied from group to group, with no obvious age-related trends.
- The message was generally felt to be believable, but it was "common sense" or "obvious." Some participants said that they were already motivated by these sorts of considerations. Others felt that it would be better not to give such a long list, but to let people "fill in the blanks" with their own activities (e.g., "what would you do with the extra time you don't spend in the shower?").
- The biggest problem with this message is its assumption that most people shower in the morning. One participant said: "it cuts me out because I shower in the evening."
- Group 4 (18-24, females) was the least happy with this message: "I found it confusing. First it tells you what it means, and then it asks you what it means."

This message is not effective in motivating behavioural change; it only attained an overall score of 4.2 out of a possible 10. More than one participant said "a shower brings more



happiness" than the items mentioned in the message. For Group 7 (55+, mixed gender), this message was not very applicable, as most of them were retired.

3.6.4 Message 4 (Shorter showers save money/water)

The final message to be tested presented two types of savings that could result from reducing one's showering time by two minutes:

4A. By reducing your average shower time by two minutes you could save around 6,000 litres of water a year.

4B. By reducing your average shower time by two minutes you could save around \$40 a year off your water/energy bills.

Of all the messages presented in the focus group, Message 4 was the most popular one:

- ➤ For the most part, the information presented in this message was new to participants.
- ➤ Participants generally found this message believable. Some expressed surprise that the amount of money in Message 4B was so low; they expected saving 6,000 litres of water to translate into a lot more money than \$40.
- The idea of reducing showering time by two minutes met with general approval "that's doable!"
- ➤ Message 4A was preferable to 4B. Saving 6,000 litres of water was seen as the bigger motivator for behavioural change. There were two reasons for this. First, many of the participants were renters who did not pay for water directly; they were, therefore, more prone to respond to a conservation message than a saving-money message ("6,000 litres is better; most of us don't pay for our water, so this kind of hits everyone"). Second, the number (6,000) is large and more impressive than a mere \$40 per year. One participant said: "40 bucks a year is probably not going to mean much" and another: "I spend that much on coffee during the month."
- Participants did, however, want some clue as to what 6,000 litres of water would look like. They felt that any advertisements designed with this message should include a visual representation (e.g., 1,500 four-litre milk jugs) or some verbal information (e.g., how many swimming pools could be filled).

This message was the most effective in motivating behavioural change. Both forms (saving 6,000 litres of water or saving \$40 off energy/water bill) scored more than 5 out of 10 for likelihood of changing behaviour – the highest for any of the messages tested.



3.6.5 Disseminating the Messages

After the messages had been discussed, participants were asked about the best way of getting message to them.

- Participants from all groups mentioned bus advertisements, including ads inside the bus, on the outside of a bus, or at bus shelters. Even if people do not actually ride the bus, they would see the ads when walking or driving behind/beside buses. There was a general consensus about the effectiveness of bus ads among all respondents, suggesting that this might be the most effective method for message delivery.
- The younger participants mentioned social media (Facebook, Twitter, etc.). When asked about whether or not they would actually look at a CRD ad or "like" the CRD on Facebook, enthusiasm waned slightly. Older participants with children also cited social media.
- > Participants who paid for their own water (the older groups) also mentioned inserts in, or information printed directly on the water bill.
- > TV ads were mentioned, but participants decided that for them to appear on the most popular channels would be too expensive.
- The local newspapers that are distributed free to CRD residents were also cited as a possibility for information dissemination.



SECTION 4: SUMMARY & RECOMMENDATIONS

Research revealed some potential areas for educating CRD residents.

- One participant provided a very insightful comment: "The strategy is to educate people to realize that nothing is free. That goes for everything. There is nothing that is free; it is just simply how much you can get [away] with the perception that you are not paying." The CRD could act on this comment and undertake an education campaign that specifically targets the water use component of what "free" really means.
- ➤ There is scope for making CRD residents aware of the fact that warming up the shower wastes water. Education would be an important first step to improving conservation in this area. The average time that the water ran before the shower was used was generally under two minutes, although in Group 6 (35-54, mixed gender, most with children at home) the average was higher. On the basis of the calculation used for testing message 4b, an average of about two minutes could translate to 6,000 liters of water per year. Thus, whatever the CRD undertakes in terms of education would definitely have some benefits.

The findings identified some water-saving strategies to promote.

- The CRD needs to present the five-minute shower as the ideal. There are some individuals who do not realize that more than 15 minutes in the shower is a long time. The limiting of a shower to "two songs" came up a few times during the focus groups and one participant who had never heard of this idea said it was "brilliant". It might be worthwhile for the CRD to investigate how closely the timing of "two songs" approaches the five-minute ideal.
- Focus group participants showed great resistance to the concept of taking fewer showers overall. They were, however, more willing to change in terms of taking shorter showers. The CRD should focus its energies on promoting shorter showers.
- The CRD should also consider a summer campaign of promoting the turn-on/turn-off method of showering. "Getting cold" was a barrier to this practice, but if CRD residents could acquire the habit while the weather is warm, they might keep it up during the colder times of the year. Individuals were somewhat receptive to this water conservation method, so there is a possibility that this strategy might catch on.

The research uncovered some important aspects of messaging.

➤ In general, the CRD should highlight the environmental benefits of saving water — the notion of being a responsible, non-wasteful global citizen. Despite the numerous



statements by participants about how money motivates people, the research findings suggest that it would be more effective to push their "go green" button rather than their "save money" button. In Germany, where water is much more expensive than in the CRD and where there is metered outflow, shower times are not much shorter. In fact, showering times have been going up in Germany despite high water costs and metered outflow.⁴

- Another argument for using the "go green" message is that it applies to all CRD residents regardless of whether or not they pay for their water use directly.
- One of the prominent findings of the research was that people who shower in the morning are by no means in the majority. Many shower in the evening or at various different times throughout the day. Designing advertisements that target only morning-shower people will miss a large portion of the population.
- ➤ In general, people in Group 7 (55+, mixed gender) were the least likely to change their behaviour in response to any message suggesting that it would not be cost-effective to design advertisements targeting this population group. Furthermore, it seems that they already use less water than younger people; this group had the lowest average number of showers per adult.
- ➤ It is strongly recommended that the CRD hire a professional firm to assist with the design of the messages and the subsequent development of the advertisements. Participants particularly those between 18 and 24 years of age were extremely discerning with respect to the messages tested and quick to pick up on aspects of these messages that were (in their eyes) contradictory or politically incorrect.

⁴ http://de.statista.com/statistik/daten/studie/36517/umfrage/anteil-der-befragten-die-mindestens-taeglich-einmal-duschen-in-2001-und-2006/



APPENDIX A: FOCUS GROUP SCREENER



Shower Behaviour Focus Group Recruitment

Hello! My name is _______, and I'm calling from R.A. Malatest & Associates Ltd., a market research firm. We are calling today to invite adults to a focus group discussion about showering behaviour, which our company is conducting for the Capital Regional District (CRD). Participants will be paid a gratuity of \$75 for participating in this research. We are not selling anything, or promoting any services. Focus groups generally run from 1.5 to 2 hours. Would you be interested in joining one of our groups? May I please ask you a couple of questions to see if you qualify to attend?

Group 1: Mixed gender: 18 to 24-year-olds, single, living at home with

parent(s)/other family members, or living with others (not

family members), mix of working and not working

Group 2: Mixed gender: 18 to 24-year-olds, single, living alone, mix of

working and not working

Group 3: Males only: 18 to 24-year-olds, single, living at home with

parent(s) other family members, living with others

(not family members), or living alone, mix of working

and not working

Group 4: Females only: 18 to 24-year-olds, single, living at home with

parent(s), living with others (not family members), or

living alone, mix of working and not working

Group 5: Mixed gender: 25 to 34-year-olds

Group 6: Mixed gender: 35 to 54-year-olds (preferably those with children at

home, if possible teenagers) MAX. 2 WITHOUT CHILDREN

Group 7: Mixed gender: 55 years of age or older

1. Record gender:

1 Male

2 Female

- 2. Do you, or does anyone in your household currently work in any of the following fields? Has anyone in your household done so in the past?
 - *1* Marketing [NON-QUALIFIER]
 - *2* Marketing research [NON-QUALIFIER]
 - *3* Advertising [NON-QUALIFIER]
 - *4* Public relations [NON-QUALIFIER]
 - *5* Work for the CRD [NON-QUALIFIER FOR THESE FOCUS GROUPS REFER TO WEBSITE FOR SIGN-UP TO BE CALLED FOR OTHER GROUPS]
- 3. Does your dwelling contain at least one working shower?
 - *1* Yes
 - *2* No [NON-QUALIFIER FOR THESE FOCUS GROUPS REFER TO WEBSITE FOR SIGN-UP TO BE CALLED FOR OTHER GROUPS]
- 4. Which of the following statements best describes you?
 - *1* At home, I shower almost all of the time
 - *2* At home, I shower most of the time
 - *3* At home, I shower and bathe more or less the same
 - *4* At home, I bathe almost all of the time [NON-QUALIFIER FOR THESE FOCUS GROUPS REFER TO WEBSITE FOR SIGN-UP TO BE CALLED FOR OTHER GROUPS]
- 5. Is your home supplied by well water?
 - *1* Yes[NON-QUALIFIER FOR THESE FOCUS GROUPS REFER TO WEBSITE FOR SIGN-UP TO BE CALLED FOR OTHER GROUPS]
 - *2* No
- 6. Could you please tell me into which of the following age categories you fall?
 - *1* 18 to 24 years of age
 - *2* 25 to 34 years of age
 - *3* 35 to 54 years of age
 - *4* 55 years of age or more
- 7. [FOR AGES 18 TO 24 ONLY] Which of the following best describes your current marital status and living situation? Are you ...
 - *1* ... married or living with partner [NON-QUALIFIER REFER TO WEBSITE FOR SIGN-UP TO BE CALLED FOR OTHER GROUPS]
 - *2* ... single, living at home with parent(s)/other family members
 - *3* ... single, living with others (not family members)
 - *4* ... single, living alone
- 8. Do any children currently live with you? [CHOOSE ALL THAT APPLY]
 - *1* No [IF AGES 35 TO 54, MAXIMUM 2 FOR GROUP **6**]
 - *2* Yes, one or more child(ren) who are 12 years of age or younger
 - *3* Yes, one or more adolescent child(ren) between 13 and 17 years of age
 - *4* Yes, one or more adult child(ren) 18 years of age or older

_								
9.	[FOR AGES 18 TO 24 ONLY] What is your current occupation? Are you							
	1 a homemaker *2* not working (either unemployed or students who are not working at a job)							
	3 working part-time (including students who work part-time)							
	4 working full-time (including students who work full-time)							
	5 Other: (please specify)							
10	To subob have of describing describing							
10.	In what type of dwelling do you live? *1* Single-detached (single family dwelling)							
	1 Single-detached (single family dwelling) *2* Semi-detached (duplex, triplex, etc.)							
	3 Apartment / Condominium (single entrance, individual suites)							
	4 Townhouse/ row housing							
	5 Trailer/ mobile/ manufactured home							
	6 Other (please specify:)							
4 4								
II.	Have you ever attended a focus group or participated in a one-on-one interview for which you							
	were paid a sum of money?							
	1 No *2* Yes.							
	When did you last attend a focus group/participate in an interview? months							
	ago [NON-QUALIFIER IF LESS THAN SIX MONTHS AGO – REFER TO WEBSITE FOR							
	SIGN-UP TO BE CALLED FOR OTHER GROUPS]							
	of the perace of the content of the							
	Those are all the questions I have for you at this time. Thank you for taking the time to speak							
	to me today! I'll have my supervisor review your answers and if you qualify to attend one of							
	these groups you will be called back within two to four business days. The groups will take							
	place on Thursday, October 23 th [Group 6], Monday, October 27 th , Tuesday, October 28 th and							
	Wednesday, October 29 th . [RECORD IF RESPONDENT NOTES THEY ARE NOT AVAILABLE ON							
	ONE OF THESE DAYS]. If you do not qualify for these groups, but are interested in							
	participating in other research with Malatest, please visit our website at <u>www.malatest.com</u> . On							
	the main page you will see a "join now" button under the heading of" "Are you interested in							
	participating in an online research panel or focus group?". Thank you again and have a							
	wonderful evening!							
	Full Name:							
	Phone #:							
	Email:							
	all fields required							



APPENDIX B: RECRUITMENT TOOLS

This information sheet was printed out double-sided and handed out to prospective participants while recruiting for focus group participants on Camosun College campuses and to other interested individuals in October 2014.





Get paid \$75 to give your opinion!



FOCUS GROUPS Monday to Wednesday (Evenings) OCTOBER 27, 28 or 29, 2014

R.A. Malatest & Associates Ltd., a Victoria-based research firm, is currently recruiting individuals aged 18 to 24 years to participate in a research discussion about showering behavior for the Capital Regional District (CRD).

This study requires that all participants be screened.

Call 250-386-3373 to see if you qualify! Participation in this research is completely voluntary.

Please note that contact information will only be used for the purposes of communication with participants concerning these focus groups. Personal information will be held under strict privacy and security protocols and in full compliance with the BC FOIP Act. You can contact the firm's privacy officer at privacy@malatest.com should you have any questions or concerns about the use of your contact information

What is a focus group?

A **focus group** is a form of qualitative research in which a group of people are asked about their perceptions, opinions, beliefs, and attitudes towards a product, service, concept, advertisement, idea, or packaging. Questions are asked in an interactive group setting where participants are free to talk with other group members. The group is moderated by an experienced focus group leader who will ask questions about the subject matter topic. Sessions are typically audio and/or video recorded so that the moderator can review the session when preparing the summary of results. These recordings are kept private and only used to refer to the feedback given.

(Source: http://en.wikipedia.org/wiki/Focus group, viewed October 17, 2014)

CALL 250-386-3373

To be screened or for more details

R.A. Malatest & Associates 858 Pandora Avenue Victoria, BC www.malatest.com







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CALL 250-386-3373

To be screened or for more details

R.A. Malatest & Associates 858 Pandora Avenue Victoria, BC www.malatest.com

¹ Source: http://en.wikipedia.org/wiki/Focus group, viewed April 4, 2014



APPENDIX C: PRE-FOCUS-GROUP QUESTIONNAIRE



PRE-FOCUS-GROUP QUESTIONNAIRE ("HOMEWORK")

Thank you for agreeing to participate in our focus group! As we mentioned when we spoke to you, there is a "homework assignment" for you to do.

We would like to gather some basic information about the showering behaviour in your household. This questionnaire enables you to provide that information confidentially and honestly. Your <u>individual</u> responses to these questions will not be revealed during the focus group. Only the combined responses of all participants may be presented and discussed.

Please click here to be directed to your personal, secure, pre-focus-group questionnaire. You may exit and re-enter the questionnaire as often as you want. Our server will remember where you were. In order for you to participate in the focus group and receive your \$75.00, we need you to complete this questionnaire by October 20, 2014.

VERIFICATION:

Your answers to the following questions will help confirm that we have placed you in the correct focus group. [PROGRAMMED TO CHECK WITH CRITERIA FOR PARTICIPANT'S FOCUS GROUP. SURVEYS WITH DISCREPANCIES FLAGGED AND REVIEWED BY RECRUITMENT SUPERVISOR.]

- A1. What is your gender?
 - *1* Male
 - *2* Female
- A2. Into which of the following age categories do you fall?
 - *1* 18 to 24 years of age
 - *2* 25 to 34 years of age
 - *3* 35 to 54 years of age
 - *4* 55 years of age or more
- A3. [FOR AGES 18 TO 24 ONLY] Which of the following best describes your current marital status and living situation? Are you ...
 - *1* ... married or living with partner [PROGRAM ALERT]
 - *2* ... single, living at home with parent(s)/other family members
 - *3* ... single, living with others (not family members)
 - *4* ... single, living alone

A4.	Do any children currently live with you in your home? [CHOOSE ALL THAT APPLY] *1* No [PROGRAM ALERT IF A2=3, MAXIMUM 2 WITHOUT CHILDREN] *2* Yes, one or more child(ren) 12 years of age or younger *3* Yes, one or more adolescent child(ren) between 13 and 17 years of age *4* Yes, one or more adult child(ren) 18 years of age or older
A5.	What is your current occupation? Are you ? *1* a homemaker *2* not working (either unemployed or students who are not working at a job) *3* working part-time (including students who work part-time) *4* working full-time (including students who work full-time) *5* Other: (please specify)
A6.	[IF A5 GREATER>2] Would you say that your occupation (i.e., what you do in the way of a job) influences your showering habits? *1* No *2* Yes; please tell us how:
A7.	(a) What type of a shower do you have in your home? *1* Very water efficient (7 litres per minute or less) *2* Water efficient (just over 7 to 9 litres per minute) *3* Not water efficient (10 litres per minute or more) *4* Don't know
	(b) Does your shower have multiple showerheads? *1* Yes *2* No
Ηοι	USEHOLD COMPOSITION:
	The following questions are about the number of people living in your household [PROGRAM A DEFINITION ¹] and collect some basic information about their showering routines.
B1.	Including yourself, how many people are currently living in your household [PROGRAM A DEFINITION]? Please specify the number of people.
	(a) adult(s) (18 years of age or older; this may include roommates)
	(b) O none adolescent(s) aged 13 to 17 years
	(c) O none child(ren) aged 12 years or younger

 $^{^{1}}$ A "household" is considered to be only the people who live with you; it does NOT include tenants in a separate, self-contained suite at the same address.

B2. In a typical week (i.e., 7 days), what is the <u>average</u> TOTAL number of showers taken by ALL the various people in your household?

For example, if there are 2 adults in your household who both typically shower every day at home and one of them goes to the gym 3 times a week and also showers there, your answers to the first question would be: 14 showers at home, 3 showers elsewhere.

Adult(s) (18 years of age or older) [PROGRAM ALERT IF SHOWERS AT HOME="none"]								
showering at home	O none	showers per week						
showering elsewhere (e.g., fitness facility, office/work,		showers per week						
[IF B1b IS NOT "none"]								
Adolescent(s) (aged 13 to 17 years)								
showering at home per we	ek O none	showers per week						
showering elsewhere (e.g., fitness facility, office/work,		showers per week						
[IF B1c IS NOT "none"]								
Child(ren) (aged 12 years and under)								
showering at home per we	ek O none	showers per week						
showering elsewhere (e.g., fitness facility, office/work,		showers per week						

B3. Including yourself, what is the <u>usual</u> time of day that people in your household take showers **at home**?

Adult(s), 18 years of age or older:

- *1* In the morning
- *2* In the evening
- *3* It varies too much to say

[IF B1b IS NOT "none"]

Adolescent child(ren), aged 13 to 17 years:

- *1* In the morning
- *2* In the evening
- *3* It varies too much to say
- *4* They only bathe; they don't shower [PROGRAM ALERT]

[IF B1c IS NOT "none"]

Child(ren), 12 years of age or younger:

- *1* In the morning
- *2* In the evening before bed
- *3* It varies too much to say
- *4* They only bathe; they don't shower

B4.	34. [IF B1a GREATER THAN ONE, or IF B1a EQUALS ONE AND B1b OR B1c IS NOT "none"] Thinking now about your household as a whole, and compared to other households like yours (i.e., with the same number of people), do you think the total showering time of everyone in your house is? *1* well above average *2* slightly above average *3* about average *4* slightly below average *5* well below average *6* Couldn't say / no idea								
P_{FR}	SONAL SHOWERING PRACTICES:								
	This last group of questions explores your <u>personal</u> sho	owering habits.							
C1		_							
CI.	In a typical week (i.e., 7 days), how many times do yo								
	(a) without washing your hair (in the shower):	O none	times per week						
	(b) including washing your hair (in the shower):	O none	times per week						
	(c) without shaving (in the shower):	O none	times per week						
(d) including shaving (in the shower): O none times pe									
	times per week								
	(f) including brushing your teeth (in the shower):	O none	times per week						
C2.	In a typical week (i.e., 7 days), how many times do you gym/fitness facility, the office/work, other)?	u shower <u>some</u>	where else (e.g., at a						
	o none times per week								
C3.	3. Do you turn the shower on and run it before actually using it? *1* Yes (If yes, how long does the shower run before you get in? minutes) *2* No								
C4.	Do you practise the "turn on/turn off" method of shows *1* Yes *2* No	ering? [PROGRA	M LINK TO DEFINITION ²]						

² The turn on/turn off method of showering is: get in shower, turn on water, get wet, turn water off, wash (body, hair, shave, brush teeth, etc.), turn on water, rinse, turn off water, put conditioner in your hair, turn water on, rinse hair, turn off water, and get out of shower.

- C5. How would you describe the amount of time you typically spend in the shower at home?
 - (a) [IF C1a IS NOT EQUAL TO "none"] showering without washing your hair
 - *1* I'm in and out
 - *2* I shower quite quickly
 - *3* I spend a reasonable amount of time in the shower
 - *4* I spend quite a long time in the shower
 - *5* I spend a long time in the shower
 - (b) [IF C1b IS NOT EQUAL TO "none"] showering including washing your hair
 - *1* I'm in and out
 - *2* I shower quite quickly
 - *3* I spend a reasonable amount of time in the shower
 - *4* I spend quite a long time in the shower
 - *5* I spend a long time in the shower
 - (c) [IF C1c IS NOT EQUAL TO "none"] showering without shaving
 - *1* I'm in and out
 - *2* I shower quite quickly
 - *3* I spend a reasonable amount of time in the shower
 - *4* I spend quite a long time in the shower
 - *5* I spend a long time in the shower
 - (d) [IF C1d IS NOT EQUAL TO "none"] showering including shaving
 - *1* I'm in and out
 - *2* I shower quite quickly
 - *3* I spend a reasonable amount of time in the shower
 - *4* I spend guite a long time in the shower
 - *5* I spend a long time in the shower
 - (e) [IF C1e IS NOT EQUAL TO "none"] showering without brushing your teeth in the shower
 - *1* I'm in and out
 - *2* I shower quite quickly
 - *3* I spend a reasonable amount of time in the shower
 - *4* I spend quite a long time in the shower
 - *5* I spend a long time in the shower
 - (f) [IF C1f IS NOT EQUAL TO "none"] showering including brushing your teeth in the shower
 - *1* I'm in and out
 - *2* I shower quite quickly
 - *3* I spend a reasonable amount of time in the shower
 - *4* I spend quite a long time in the shower
 - *5* I spend a long time in the shower

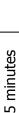
- **C6.** How many minutes would you say you spend on average in the shower? [IF C4=yes, PROGRAM THE FOLLOWING TO APPEAR: "For showers using the turn on/turn off method, please count only the time the water <u>is actually running</u>."]
 - (a) [IF C1a IS NOT EQUAL TO "none"] showering without washing your hair
 - *1* less than 5 minutes
 - *2* 5 to 7 minutes
 - *3* 8 to 10 minutes
 - *4* 11 to 15 minutes
 - *5* more than 15 minutes
 - (b) [IF C1b IS NOT EQUAL TO "none"] showering including washing your hair
 - *1* less than 5 minutes
 - *2* 5 to 7 minutes
 - *3* 8 to 10 minutes
 - *4* 11 to 15 minutes
 - *5* more than 15 minutes
 - (c) [IF C1c IS NOT EQUAL TO "none"] showering without shaving
 - *1* less than 5 minutes
 - *2* 5 to 7 minutes
 - *3* 8 to 10 minutes
 - *4* 11 to 15 minutes
 - *5* more than 15 minutes
 - (d) [IF C1d IS NOT EQUAL TO "none"] showering including shaving
 - *1* less than 5 minutes
 - *2* 5 to 7 minutes
 - *3* 8 to 10 minutes
 - *4* 11 to 15 minutes
 - *5* more than 15 minutes
 - (e) [IF C1e IS NOT EQUAL TO "none"] showering without brushing your teeth in the shower
 - *1* less than 5 minutes
 - *2* 5 to 7 minutes
 - *3* 8 to 10 minutes
 - *4* 11 to 15 minutes
 - *5* more than 15 minutes
 - (f) [IF C1f IS NOT EQUAL TO "none"] showering including brushing your teeth in the shower
 - *1* less than 5 minutes
 - *2* 5 to 7 minutes
 - *3* 8 to 10 minutes
 - *4* 11 to 15 minutes
 - *5* more than 15 minutes

C7.	Do you think the	time you personally spend in the shower is?
	1	···· ··· ··· ··· ··· ··· ··· ··· ··· ·
	2	ongrun, under eine eine
	3	about average
	4	m engina, a enem an enege
	5	- -
	6	Couldn't say / no idea
C8.	[IF C2 IS NOT EQU	JAL TO "none"] Thinking about when you shower somewhere else (e.g., at a
		ty, the office/work, other), which of the following statements best describes
	the length of you	ir shower?
	1	My showers are always the same length whether I shower at home or
		elsewhere.
	2	, g
	3	,
	4	,
	5	Couldn't say / no idea
C9.	Are vour showeri	ng habits different on weekends?
٠,٠	*1*	
	=	Yes; please tell us how:
FIN	AL PAGE	
	, LE 1710E	
	•	t the CRD might wish to contact you again for further research. If you are ticipating in further research about showering behaviour, please provide your on below.
	Please note that	this information will be stored separately from your answers to the questions
		are completely free to change your mind about participating when you are
		Full Name:
		Phone #:
		Email:
	all fields requir	red

Thank you for completing this questionnaire! We look forward to seeing you at the focus group.



APPENDIX D: MODERATOR'S GUIDE AND POWERPOINT PRESENTATION





Moderator's Guide CRD Shower Behaviour Focus Groups

Introduction

Hello! My name is Sharon Krebs. I work for R.A. Malatest & Associates here in Victoria. We have been hired by the Capital Regional District (CRD) to conduct focus groups about showering behaviour. Thank you all so much for coming today and for completing the online questionnaire. The focus group should take approximately 2 hours. Over the course of the evening, we will be completing different types of activities. Let's start by doing a round of introductions – just first names is fine.

Activity 1: Perceptions of Showers

The first activity explores showering perceptions. It should take us about 15 minutes to complete. I am going pass out a piece of paper to each one of you that contains a fill-in-the-blank statement. Working by yourself, I'd like each of you to complete the sentence you see. We will then have a discussion about what you wrote.

Participants will be given one to two minutes to write; a discussion will follow.

You will recall that on your "homework assignment" we asked about (a) what time of day you and others in your households tend to take showers, (b) whether or not you take showers at facilties outside your home, and (c) if there is any difference between your showers on weekdays and on weekends. Would your completing of the sentence "For me a shower is . . ." be different for showers at different times of the day? Or for showers you take at somewhere other than at home? Or on weekdays vs. weekends?

Moderator to lead a discussion.

Activity 2: Influences on Shower Duration

Our next activity should take us about 20 minutes to complete. Let's talk about some of the things that influence showering behaviour. I will pass out little cards and this time I'd like you to list what are the most important considerations that determine the length of your shower. They are colour-coded for first, second and third most important. When you're done, please pass them over to me.

Moderator to sort the cards by **1** financial considerations, **2** environmental considerations, **3** cleanliness, **4** relaxing/unwinding/me time, or **5** other (can be broken down further if obvious subgroups emerge). Discuss, and probe for how strong these influencers are.

15 minutes

20 minutes

Activity 3: Influencers

Our next activity will build upon what we were just talking about. It, too, should take us about 20 minutes to complete. We will start with our largest stack of cards.

Moderator to choose the largest stack of cards and tell participants into what category it falls (financial, environmental, cleanliness, relaxing, etc.).

What people in your life determine your views on [LARGEST PILE CATEGORY] and consequently the length of your showers?

Moderator to probe exhaustively. For the four groups of youth particularly, explore peers, parents (if living at home), upbringing, popular figures on TV or in movies, other media influencers (TV shows, etc.), popular environmental activists, etc. Let's go to our second largest stack of cards.

Moderator to choose the next largest stack of cards and tell participants into what category it falls (financial, environmental, cleanliness, relaxing, etc.).

What people in your life determine your views on [SECOND LARGEST PILE CATEGORY] and consequently the length of your showers?

Moderator to probe exhaustively as above.

Moderator to repeat the above process with any other categories that have more than 5 cards in them.

Activity 4: Changing Showering Behaviour

Our next activity should also take about 20 minutes to complete. We would like to explore some ways in which people could use less water for showering [SHOW SLIDE]:

- (1) They could take fewer showers overall.
- (2) They could take shorter showers.
- (3) They could start practising the turn on/turn off method of showering.
- (4) They could avoid running the shower before they're actually using it.

I have cards with these options printed on them. I would like you to think about them carefully and then stick them on the wall under one of four signs I will put up. The first sign is "I would consider changing", the second sign is "I might consider changing", the third sign is "I would **not** consider changing", and the fourth sign is "Not applicable, I already do this."

Moderator to lead a discussion after participants have posted their cards. Explore reasons for unwillingness to change, motivations for willingness to change and what would need to happen to make the "might" individuals switch to being willing to change.

minutes

20

Activity 5: Estimating Showering Time

For our next activity we will also be taking about 25 minutes to complete it. On your homework questionnaire we asked you to say if you thought the time members of your household, including you personally, spent in the shower was average, above average or below average. I would like you to tell me how you came up with what you considered to be "average", "below average", and "above average." In your opinion, what is an average shower in minutes?

[SHOW SLIDE OF BRITISH STUDY] A British study showed that people generally underestimated the amount of time they spend in the shower. When people thought they were showering for 5 minutes, they were actually showering for more like 8 minutes. As you can see in the photo on the bottom left, the researchers were able to get accurate data on this private activity by attaching a monitor to the shower. Similar results were seen in North America.

We have some devices here to show you — both various kinds of monitors and other hardware that can be used to reduce showering time. I am going to go through them and show you now they work [SHOW MONITORS AND USE THE SLIDES TO EXPLAIN HOW EACH ONE WORKS, WHAT'S INVOLVED WITH INSTALLING IT, ETC.].

Go round the table to ask if this is their first exposure to this type of equipment. If someone says they currently have one in their home, ask them if they use it and how much.

I am going to pass out answer sheets again and then place the different gadgets around the room. Please get up and take a look at them. They are all labeled and I'd like you write down the number of the one you think would work best for you. I'd like you to give me a rating for how likely you think it is that a monitor would encourage you to take shorter showers. Also, please think about whether having a shower monitor would encourage other members of your household to take shorter showers.

After participants have completed their worksheets, moderator to collect answer sheets and discuss the comments with the participants. BE SURE TO EXPLORE effects of shower monitor on other household members, if applicable.

Activity 6: Message Testing

Our final activity should take us about 20 minutes to complete. The CRD has four messages that contain information about showering. I'm going to pass out a worksheet and have you answer questions about each of these messages. After, we will have a discussion about them. Some of the messages come in an 'A' and 'B' format. Please rate those separately.

[SHOW SLIDES WITH MESSAGES - QUESTIONS GIVEN BELOW]

(1)	Have you heard this information before?								O \	⁄es		O No
(2)	How believable do you find the information?											
	O Very O Fairly				,	O Not	at all					
(3)		•	his info	rmatio	on to cl	hange	what y	ou cu	rrently	do ir	n term: Extrem likely	ely
		0	0	0	0	0	0	0	0	0	0	

After all messages have been shown and participants have completed their worksheets. Moderator to go back through the slides and get feedback on what people thought of the individual messages. Probe for what makes people find the messages effective. Collect worksheets before wrap-up.

ALSO ask what the best method of exposing them to these messages would be (newspapers, TV, radio, social media, etc.)

Wrap-up

I'm just going to check with our observers to see if there is anything else they want me to ask you. While I'm gone, please think about whether there is anything else that you would like to tell me before we wrap up for the day/evening.

Brief discussion if anything arises.

Thank you so much for coming today and for your valuable input! In addition to your gratuity, which you will receive from the hostesses on your way out, we will be sending you home with a little shower-timing goodie bag from the CRD.

minutes



Showering Behaviour Focus Groups





Ways to use less water for showering

Take fewer showers overall.

Take shorter showers.

Start practising the turn on/turn off method of showering.

Avoid running the shower before actually using it.



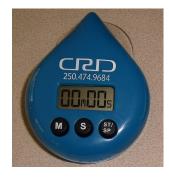




A waterproof timer

Installation:

Attaches to shower wall with a suction cup.



Operation:

Start timer when you begin your shower. Stop timer when you're done.

A water pebble

Installation:

Place in shower near drain.



Operation:

The device is activated by contact with water. At first the lights flash green. After two minutes the lights start flashing yellow. After four minutes the lights start flashing red, telling you it's time to get out!

A shower volume control

Installation:

The showerhead is taken off and the volume control is inserted between the showerhead and the water supply pipe.



Operation:

The device is used to manually control the amount of water flowing (from a drizzle to full on). For showers that do not have a single lever or knob, it can be used to make the on/off method of showering more convenient.

A "shower manager"

Installation:

The showerhead is taken off and the manager is inserted between the showerhead and the water supply pipe.



Operation:

The shower manager is controlled by passing a magnet across a specific point. The number of passes determines the length of the shower. Once the time is up, the flow decreases to a drizzle – enough to rinse off, but not enough to make people want to linger in the shower.





Cut Flow



"Showerstart" showerhead

Installation:

The showerhead is taken off and, if present, the rubber washer is removed. The



"showerstart" is inserted between the showerhead and the water supply pipe.

Operation:

Turn on shower to warm up water. When the water temperature reaches 95°F/35°C the flow is reduced to a trickle. When you get into the shower, you pull the cord for full flow to resume.

MESSAGE 1

A. Quicker, cooler showers are better for the health of your hair and skin.





MESSAGE 1

B. Scientists have found that long, hot showers dehydrate your skin; so make it speedy and lukewarm for a youthful complexion.





MESSAGE 2

A. The average person showers for 4 minutes. Do you? Take the challenge.





MESSAGE 2

B. The average person showers for 4 minutes. Do you? Cutting the length of time in the shower helps to save water and energy. Take the challenge.





MESSAGE 3

A shorter shower means: more time in bed, time to have breakfast, avoid the travel rush, less hassle from family or roommates. What does it mean to you?





MESSAGE 4

A. By reducing your average shower time by two minutes you could save around 6,000 litres of water a year.





MESSAGE 4

B. By reducing your average shower time by two minutes you could save around \$40 a year off your water/energy bills.







APPENDIX E: THE FOCUS GROUP PARTICIPANTS

Group 1 18 to 24-year-olds, single, living at home with parent(s)/other family members, or living with others (not family members), mix of working and not working



	NAME	Q1 - Gender	Q3 - Working shower	Q4 - Shower vs. Bath	Q5 - Well water	Q6 - Age	Q7 - Marital Status and Living Situation	Q8 - Children	Q9 - Occu- pation	Q10 - Dwelling	Q11 - Focus Group	HOME- WORK
1		Female	Yes	Shower most of the time	No	18-24	Single, living with parents/other family member(s)	Yes, 13-17	P/T working	Single- detached	No	✓
2	R	Male	Yes	Shower almost all of the time	No	18-24	Single, living with parents/other family member(s)	Yes <12 & 13- 17	F/T working	Townhouse/ Row housing	No	✓
3	E	Female	Yes	Shower almost all of the time	No	18-24	Single, living with parents/other family member(s)	No	Not working	Single- detached	No	✓
4	М	Female	Yes	Shower almost all of the time	No	18-24	Single, living with parents/other family member(s)	Yes, 13-17	P/T working	Single- detached	No	✓
5	0	Male	Yes	Shower almost all of the time	No	18-24	Single, living alone	No	Not working	Apartment/ Condo	No	✓
6	V	Female	Yes	Shower and bathe the same	No	18-24	Single, living with brother in bsmt. suite	No	P/T working	Basement suite	No	✓
7	E	Female	Yes	Shower almost all of the time	No	18-24	Single, living with others - not family	No	P/T working	Apartment/ Condo	No	✓
8	D	Male	Yes	Shower most of the time	No	18-24	Single, living with others - not family	No	Not working	Single- detached	No	✓
9		Male	Yes	Shower most of the time	No	18-24	Single, living with others - not family	No	P/T working	Single- detached	Yes	✓
10		Male	Yes	Shower almost all of the time	No	18-24	Single, living with parents/other family member(s)	Yes, <12 + 13- 17 (siblings)	F/T working	Single- detached	No	✓

Group 2 18 to 24-year-olds, single, mostly living alone, mix of working and not working



	NAME	Q1 - Gender	Q3 - Working shower	Q4 - Shower vs. Bath	Q5 - Well water	Q6 - Age	Q7 - Marital Status and Living Situation	Q8 - Children	Q9 - Occu- pation	Q10 - Dwelling	Q11 - Focus Group	HOME- WORK
1	R	Male	Yes	Shower most of the time	No	18-24	Single, living alone	No	P/T working	Apartment/ Condo	No	✓
2	E	Male	Yes	Shower almost all of the time	No	18-24	Single, living alone	No	F/T working	Apartment/ Condo	No	✓
3	М	Female	Yes	Shower most of the time	No	18-24	Single, living alone	No	Not working	Apartment/ Condo	No	√
4	0	Male	Yes	Shower almost all of the time	No	18-24	Single, living alone	No	P/T working	Apartment/ Condo	No	✓
5	V	Male	Yes	Shower almost all of the time	No	18-24	Single, living in parents' bsmt suite	Yes, <12 + 13- 17 (siblings)	P/T working	Basement suite	No	✓
6	E	Female	Yes	Shower almost all of the time	No	18-24	Single, living alone	No	Not working	Basement Suite	No	✓
7	D	Female	Yes	Shower most of the time	No	18-24	Single, living alone	No	Not working	Basement Suite	No	✓
8		Female	Yes	Shower almost all of the time	No	18-24	Living with partner	No	P/T working	Apartment/ Condo	No	✓

Group 3 18 to 24-year-old males, single, living at home with parent(s) other family members, living with others (not family members), or living alone, mix of working and not working



	NAME	Q1 - Gender	Q3 - Working shower	Q4 - Shower vs. Bath	Q5 - Well water	Q6 - Age	Q7 - Marital Status and Living Situation	Q8 - Children	Q9 - Occu- pation	Q10 - Dwelling	Q11 - Focus Group	HOME- WORK
1		Male	Yes	Shower almost all the time	No	18-24	Single, living with others - not family	No	P/T working	Semi- detached	No	✓
2	R	Male	Yes	Shower almost all the time	No	18-24	Single, living with parents/other family member(s)	No	Not working	Single- detached	No	✓
3	E	Male	Yes	Shower almost all the time	No	18-24	Single, living with parents/other family member(s)	No	P/T working	Single- detached	No	✓
4	M	Male	Yes	Shower almost all of the time	No	18-24	Single, living with others - not family	No	P/T working	Single- detached	No	✓
5	0	Male	Yes	Shower most of the time	No	18-24	Single, living with others - not family	No	P/T working	Single- detached	No	✓
6	V	Male	Yes	Shower most of the time	No	18-24	Single, living with others - not family	No	P/T working	Semi- detached	No	✓
7	E	Male	Yes	Shower amost all of the time	No	18-24	Single, living with parents/other family member(s)	Yes, 13-17	F/T working	Single- detached	No	✓
8	D	Male	Yes	Shower almost all of the time	No	18-24	Single, living with others - not family	No	P/T working	Townhouse/ Row housing	No	✓
9		Male	Yes	Shower almost all of the time	No	18-24	Single, living with others - not family	No	F/T working	Apartment/ Condo	No	✓

Group 4

18 to 24-year-old females, single, living at home with parent(s), living with others (not family members), or living alone, mix of working and not working



	NAME	Q1 - Gender	Q3 - Working shower	Q4 - Shower vs. Bath	Q5 - Well water	Q6 - Age	Q7 - Marital Status and Living Situation	Q8 - Children	Q9 - Occu- pation	Q10 - Dwelling	Q11 - Focus Group	HOME- WORK
1		Female	Yes	Shower most of the time	No	18-24	Single, living with parents/other family member(s)	Yes, 13-17	Not working	Single- detached	No	✓
2	R	Female	Yes	Shower most of the time	No	18-24	Single, living with others - not family	No	Not working	Semi- detached	No	✓
3	E	Female	Yes	Shower almost all the time	No	18-24	Single, living with family	No	P/T working	Single- detached	No	✓
4	M	Female	Yes	Shower almost all the time	No	18-24	Single, living with parents/other family member(s)	No	P/T working	Single- detached	No	✓
5	0	Female	Yes	Shower almost all the time	No	18-24	Single, living with others - not family	No	P/T working	Apartment/ Condo	Yes (+1 year ago)	✓
6	V	Female	Yes	Shower almost all the time	No	18-24	Single, living with others - not family	No	P/T working	Single- detached	No	✓
7	E	Female	Yes	Shower almost all of the time	No	18-24	Single, living with others - not family	No	F/T working	Apartment/ Condo	Yes, not in last 6 months	<
8	D	Female	Yes	Shower almost all of the time	No	18-24	Single, living with parents/other family member(s)	Yes, 18+	P/T working	Semi- detached	Yes (+1 year ago)	✓
9		Female	Yes	Shower most of the time	No	18-24	Single, living with parents/other family member(s)	No	P/T working	Single- detached	No	✓

Group 5 25 to 34-year-olds



	NAME	Q1 - Gender	Q3 - Working shower	Q4 - Shower vs. Bath	Q5 - Well water	Q6 - Age	Q7 - Marital Status and Living Situation	Q8 - Children	Q9 - Occu- pation	Q10 - Dwelling	Q11 - Focus Group	HOME- WORK
1		Female	Yes	Shower almost all the time	No	25-34	[not asked]	No	[not asked]	Apartment/ Condo	No	✓
2	R	Female	Yes	Shower almost all the time	No	25-34	[not asked]	No	[not asked]	Apartment/ Condo	No	✓
3	E	Male	Yes	Shower almost all of the time	No	25-34	[not asked]	Yes, <12	[not asked]	Townhouse/ Row housing	No	✓
4	M	Male	Yes	Shower almost all of the time	No	25-34	[not asked]	No	[not asked]	Single- detached	No	✓
5	0	Male	Yes	Shower almost all of the time	No	25-34	[not asked]	No	[not asked]	Townhouse/ Row housing	No	✓
6	V	Male	Yes	Shower most of the time	No	25-34	[not asked]	No	[not asked]	Single- detached	Yes/ (24 months ago)	✓
7	Е	Female	Yes	Shower most of the time	No	25-34	[not asked]	No	[not asked]	Single- detached	No	✓
8	D	Female	Yes	Shower almost all the time	No	25-34	[not asked]	No	[not asked]	Apartment/ Condo	No	✓
9		Male	Yes	Shower almost all of the time	No	25-34	[not asked]	No	[not asked]	Apartment/ Condo	No	✓

Group 6 35 to 54-year-olds (preferably those with children at home, if possible teenagers) MAXIMUM OF 2 WITHOUT CHILDREN



	NAME	Q1 - Gender	Q3 - Working shower	Q4 - Shower vs. Bath	Q5 - Well water	Q6 - Age	Q7 - Marital Status and Living Situation	Q8 - Children	Q9 - Occu- pation	Q10 - Dwelling	Q11 - Focus Group	HOME- WORK
1		Female	Yes	Shower almost all the time	No	35-54	[not asked]	No	[not asked]	Townhouse/ Row housing	Yes (2 years ago)	✓
2	R	Male	Yes	Shower most of the time	No	35-54	[not asked]	No	[not asked]	Single- detached	No	✓
3	E	Female	Yes	Shower almost all the time	No	35-54	[not asked]	Yes, 13-17, 18+	[not asked]	Single- detached	No	✓
4	M	Male	Yes	Shower almost all the time	No	35-54	[not asked]	Yes, <12	[not asked]	Single- detached	No	✓
5	0	Female	Yes	Shower almost all the time	No	35-54	[not asked]	Yes, 13-17	[not asked]	Semi- detached	Yes (3 years ago)	✓
6	V	Female	Yes	Shower almost all the time	No	35-54	[not asked]	Yes, 13-17	[not asked]	Single- detached	No	✓
7	Е	Female	Yes	Shower almost all the time	No	35-54	[not asked]	Yes, <12, 13- 17	[not asked]	Single- detached	Yes (more than a year ago)	✓
8	D	Female	Yes	Shower most of the time	No	35-54	[not asked]	Yes, <12 + 13-17	[not asked]	Semi- detached	Yes (7+ months)	✓
9		Male	Yes	Shower almost all the time	No	35-54	[not asked]	Yes, <12	[not asked]	Single- detached	No	✓

Group 7 55 years of age or older



	NAME	Q1 - Gender	Q3 - Working shower	Q4 - Shower vs. Bath	Q5 - Well water	Q6 - Age	Q7 - Marital Status and Living Situation	Q8 - Children	Q9 - Occu- pation	Q10 - Dwelling	Q11 - Focus Group	HOME- WORK
1		Male	Yes	Shower almost all the time	No	55+	[not asked]	No	[not asked]	Single- detached	No	✓
2	R	Female	Yes	Shower almost all the time	No	55+	[not asked]	No	[not asked]	Single- detached	Yes (>1 year ago)	✓
3	E	Male	Yes	Shower almost all the time	No	55+	[not asked]	No	[not asked]	Apartment/ Condo	Yes (5 years ago)	✓
4	M	Male	Yes	Shower almost all the time	No	55+	[not asked]	No	[not asked]	Townhouse/ Row housing	No	✓
5	0	Male	Yes	Shower most of the time	No	55+	[not asked]	No	[not asked]	Semi- detached	Yes (9 years ago)	✓
6	V	Male	Yes	Shower and Bathe the same	No	55+	[not asked]	No	[not asked]	Semi- detached	No	✓
7	E	Female	Yes	Shower almost all the time	No	55+	[not asked]	No	[not asked]	Apartment/ Condo	No	✓
8	D	Male	Yes	Shower most of the time	No	55+	[not asked]	No	[not asked]	Townhouse/ Row housing	Yes (6 years ago)	✓
9		Female	Yes	Shower most of the time	No	55+	[not asked]	No	[not asked]	Apartment/ Condo	Yes (>1 year ago)	✓



APPENDIX F: "HOMEWORK" QUESTIONNAIRE TABLES



Group 1: Mixed gender (October 29 – 7:45 pm)

18 to 24-year-olds, single, living at home with parent(s)/other family members, or living with others (not family members), mix of working and not working

A1. What is your gender?

	Count	Percentage
Male	6	54.4%
Female	5	45.5%
Total	11	100.0%

A3. Which of the following best describes your current marital status and living situation? Are you...

	Count	Percentage
Married or living with partner	0	0.0%
single, living at home with parent(s)/other family members	7	63.6%
single, living with others (not family members)	3	27.3%
single, living alone	1	9.1%
Total	11	100.0%

A4. Do any children currently live with you in your home?

	Count	Percentage
No	7	63.6%
Yes, one or more child(ren) 12 years of age or younger	1	18.2%
Yes, one or more adolescent child(ren) between 13 and 17 years of age	4	36.4%
Yes, one or more adult child(ren) 18 years of age or older	0	0.0%
Total	12	118.8%

Note: Respondents were permitted to choose more than one option.

A5. What is your current occupation? Are you ...?

	Count	Percentage
a homemaker	0	0.0%
not working (either unemployed or students who are not working at a job)	2	18.2%
working part-time (including students who work part-time)	8	72.7%
working full-time (including students who work full-time)	1	9.1%
Other (see below for details)	0	0.0%
Total	11	100.0%



A6. [IF A5 GREATER>2] Would you say that your occupation (i.e., what you do in the way of a job) influences your showering habits?

	Count	Percentage
No	6	66.7%
Yes (see below for details)	3	33.3%
Total	9	100.0%

How occupation affects showering habits:

- Because I work landscaping and work in the dirt and mud.
- If I'm too tired after work, I sometimes go straight to bed. But if I'm not, I take a long shower.
- I have to shower before work in the mornings before work.

A7. (a) What type of a shower do you have in your home?

	Count	Percentage
Very water efficient (7 litres per minute or less)	0	0.0%
Water efficient (just over 7 to 9 litres per minute)	4	36.4%
Not water efficient (10 litres per minute or more)	0	0.0%
Don't know	7	63.6%
Total	11	100.0%

(b) Does your shower have multiple showerheads?

	Count	Percentage
Yes	0	0.0%
No	11	100.0%
Total	11	100.0%

B1. Including yourself, how many people are currently living in your household? Please specify the number of people.

	Smallest household	Largest household	Average household
Adult(s) (18 years of age or older; this may include roommates)	1	5	2.64
Adolescent(s) aged 13 to 17 years	0	2	0.45
Child(ren) aged 12 years or younger	0	1	0.18



B2. In a typical week (i.e., 7 days), what is the <u>average</u> TOTAL number of showers taken by ALL the various people in your household?

	Low	High	Average
Adult(s) (18 years of age or older)			
showering at home	5	24	13.91
showering elsewhere	0	4	0.91
Adolescent(s) aged 13 to 17 years			
showering at home	3	10	6.75
showering elsewhere	0	0	0.00
Child(ren) aged 12 years or younger			
showering at home	2	4	3.00
showering elsewhere	0	0	0.00

*Note: The low, high and average values are for adolescents and children living in the home. Households without adolescents or children are not included in the calculation.

B3. Including yourself, what is the <u>usual</u> time of day that people in your household take showers **at home**?

	Count	Percentage		
Adult(s) (18 years of age or older)				
In the morning	4	36.4%		
In the evening	3	27.3%		
It varies too much to say	4	36.4%		
Adolescent(s) aged 13 to 17 years				
In the morning	1	25.0%		
In the evening	3	75.0%		
Child(ren) aged 12 years or younger				
In the morning	0	0.0%		
In the evening before bed	2	100.0%		



B4. Thinking now about your household as a whole*, and compared to other households like yours (i.e., with the same number of people), do you think the total showering time of everyone in your house is ...?

	Count	Percentage
well above average	1	10.0%
slightly above average	3	30.0%
about average	5	50.0%
slightly below average	0	0.0%
well below average	0	0.0%
Couldn't say / no idea	1	10.0%
Total	10	100.0%

^{*}Note: If the participant was living alone, this question was skipped.

C1. In a typical week (i.e., 7 days), how many times do you shower at home:

	Low	High	Average
without washing your hair (in the shower)	0	5	1.64
including washing your hair (in the shower)	2	10	5.09
without shaving (in the shower)	0	9	5.00
including shaving (in the shower)	0	3	1.09
without brushing your teeth (in the shower)	0	10	4.64
including brushing your teeth (in the shower)	0	7	0.91

C2. In a typical week (i.e., 7 days), how many times do you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other)?

	Low	High	Average
Number of times showering somewhere else	0	4	0.91

C3. Do you turn the shower on and run it before actually using it?

	Count	Percentage
Yes (see below for more information)	6	54.5%
No	5	45.5%
Total	11	100.0%

	Low	High	Average
Number of minutes shower runs before being used	1	1	1.00

Note: The smallest increment that the online questionnaire would accept was one minute.



${\sf C4.}\,$ Do you practise the "turn on/turn off" method of showering?

	Count	Percentage
Yes	0	0.0%
No	11	100.0%
Total	11	100.0%

${\sf C5.}$ How would you describe the amount of time you typically spend in the shower at home?

	Count	Percentage		
(a) showering without washing your hair				
I'm in and out	1	20.0%		
I shower quite quickly	3	60.0%		
I spend a reasonable amount of time in the shower	1	20.0%		
I spend quite a long time in the shower	0	0.0%		
I spend a long time in the shower	0	0.0%		
(b) showering <i>including</i> washing your hair				
I'm in and out	0	0.0%		
I shower quite quickly	3	27.3%		
I spend a reasonable amount of time in the shower	7	63.6%		
I spend quite a long time in the shower	1	9.1%		
I spend a long time in the shower	0	0.0%		
(c) showering without shaving				
I'm in and out	1	10.0%		
I shower quite quickly	4	40.0%		
I spend a reasonable amount of time in the shower	4	40.0%		
I spend quite a long time in the shower	1	10.0%		
I spend a long time in the shower	0	0.0%		
(d) showering <i>including</i> shaving				
I'm in and out	0	0.0%		
I shower quite quickly	2	28.6%		
I spend a reasonable amount of time in the shower	2	28.6%		
I spend quite a long time in the shower	3	42.9%		
I spend a long time in the shower	0	0.0%		



(e) showering without brushing your teeth in the shower		
I'm in and out	0	0.0%
I shower quite quickly	3	37.5%
I spend a reasonable amount of time in the shower	4	50.0%
I spend quite a long time in the shower	1	12.5%
I spend a long time in the shower	0	0.0%
(f) showering including brushing your teeth in the sho	wer	
I'm in and out	0	0.0%
I shower quite quickly	1	33.3%
I spend a reasonable amount of time in the shower	2	66.7%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%

$\mathsf{C6.}\,$ How many minutes would you say you spend on average in the shower?

	Count	Percentage
(a) showering without washing your hair		
less than 5 minutes	2	40.0%
5 to 7 minutes	1	20.0%
8 to 10 minutes	1	20.0%
11 to 15 minutes	0	0.0%
more than 15 minutes	1	20.0%
(b) showering <i>including</i> washing your hair		
less than 5 minutes	1	9.1%
5 to 7 minutes	3	27.3%
8 to 10 minutes	4	36.4%
11 to 15 minutes	1	9.1%
more than 15 minutes	2	18.2%
(c) showering without shaving		
less than 5 minutes	2	20.0%
5 to 7 minutes	5	50.0%
8 to 10 minutes	1	10.0%
11 to 15 minutes	0	0.0%
more than 15 minutes	2	20.0%



(d) showering <i>including</i> shaving		
less than 5 minutes	0	0.0%
5 to 7 minutes	1	14.3%
8 to 10 minutes	4	57.1%
11 to 15 minutes	1	14.3%
more than 15 minutes	1	14.3%
(e) showering without brushing your teeth in the show	wer	
less than 5 minutes	1	12.5%
5 to 7 minutes	4	50.0%
8 to 10 minutes	1	12.5%
11 to 15 minutes	0	0.0%
more than 15 minutes	2	25.0%
(f) showering <i>including</i> brushing your teeth in the shower		
less than 5 minutes	0	0.0%
5 to 7 minutes	1	33.3%
8 to 10 minutes	1	33.3%
11 to 15 minutes	0	0.0%
more than 15 minutes	1	33.3%

${\sf C7.}\,\,$ Do you think the time <u>you personally</u> spend in the shower is ...?

	Count	Percentage
well above average	0	0.0%
slightly above average	2	18.2%
about average	7	63.6%
slightly below average	2	18.2%
well below average	0	0.0%
Couldn't say / no idea	0	0.0%
Total	11	100.0%



C8. Thinking about when you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other), which of the following statements best describes the length of your shower?

	Count	Percentage
My showers are always the same length whether I shower at home or elsewhere.	2	40.0%
My showers are generally shorter when I shower elsewhere.	3	60.0%
My showers are generally <u>slightly longer</u> when I shower elsewhere.	0	0.0%
My showers are generally <u>much longer</u> when I shower elsewhere.	0	0.0%
Couldn't say / no idea	0	0.0%
Total	5	100.0%

C9. Are your showering habits different on weekends?

	Count	Percentage
No	7	63.6%
Yes (see below for details)	4	36.4%
Total	11	100.0%

How showers are different on weekends:

- I don't shower in the mornings if I intend to hit the gym or if I'm doing yard work.
- I don't work on the weekends.
- I shower at a later time on weekends as I usually sleep in.
- Yes, my shower pattern changes depending on how I feel.



Group 2: Mixed gender (October 28 – 7:45 pm)

18 to 24-year-olds, single, most living alone, mix of working and not working

A1. What is your gender?

	Count	Percentage
Male	5	50.0%
Female	5	50.0%
Total	10	100.0%

A3. Which of the following best describes your current marital status and living situation? Are you...

	Count	Percentage
Married or living with partner	2	20.0%
single, living at home with parent(s)/other family members	1	10.0%
single, living with others (not family members)	0	0.0%
single, living alone	7	70.0%
Total	10	100.0%

A4. Do any children currently live with you in your home?

	Count	Percentage
No	8	80.0%
Yes, one or more child(ren) 12 years of age or younger	2	20.0%
Yes, one or more adolescent child(ren) between 13 and 17 years of age	1	10.0%
Yes, one or more adult child(ren) 18 years of age or older	0	0.0%
Total	11	110.0%

Note: Respondents were permitted to choose more than one option.

A5. What is your current occupation? Are you ...?

	Count	Percentage
a homemaker	0	0.0%
not working (either unemployed or students who are not working at a job)	4	40.0%
working part-time (including students who work part-time)	4	40.0%
working full-time (including students who work full-time)	2	20.0%
Total	10	100.0%



A6. [IF A5 GREATER>2] Would you say that your occupation (i.e., what you do in the way of a job) influences your showering habits?

	Count	Percentage
No	2	33.3%
Yes (see below for details)	4	66.7%
Total	6	100.0%

How occupation affects showering habits:

- As a construction worker, showers are a mandatory thing for my daily life. Missing a day doesn't happen
- I need to look presentable as I am selling a brand of clothes.
- I shower at school almost every day after I use the gym there.
- I have a physical, outside job where weather and sweat are factors.

A7. (a) What type of a shower do you have in your home?

	Count	Percentage
Very water efficient (7 litres per minute or less)	1	10.0%
Water efficient (just over 7 to 9 litres per minute)	3	30.0%
Not water efficient (10 litres per minute or more)	0	0.0%
Don't know	6	60.0%
Total	10	100.0%

(b) Does your shower have multiple showerheads?

	Count	Percentage
Yes	0	0.0%
No	10	100.0%
Total	10	100.0%

B1. Including yourself, how many people are currently living in your household? Please specify the number of people.

	Smallest household	Largest household	Average household
Adult(s) (18 years of age or older; this may include roommates)	1	3	1.40
Adolescent(s) aged 13 to 17 years	0	1	0.10
Child(ren) aged 12 years or younger	0	1	0.20



B2. In a typical week (i.e., 7 days), what is the <u>average</u> TOTAL number of showers taken by ALL the various people in your household?

	L	ow	High	Average
Adult(s) (18 years of age or older)				
showering at home		3	11	6.60
showering elsewhere		0	4	0.40
Adolescent(s) aged 13 to 17 years				
showering at home		7	7	7.00
showering elsewhere		0	0	0.00
Child(ren) aged 12 years or younger				
showering at home		0	2	1.00
showering elsewhere		0	0	0.00

^{*}Note: The low, high and average values are for adolescents and children living in the home. Households without adolescents or children are not included in the calculation.

B3. Including yourself, what is the <u>usual</u> time of day that people in your household take showers **at home**?

	Count	Percentage		
Adult(s) (18 years of age or older)	Adult(s) (18 years of age or older)			
In the morning	8	80.0%		
In the evening	2	20.0%		
It varies too much to say	0	0.0%		
Adolescent(s) aged 13 to 17 years				
In the morning	1	100.0%		
In the evening	0	0.0%		
It varies too much to say	0	0.0%		
They only bathe; they don't shower	0	0.0%		
Child(ren) aged 12 years or younger				
In the morning	0	0.0%		
In the evening before bed	1	50.0%		
They only bathe; they don't shower	1	50.0%		



B4. Thinking now about your household as a whole*, and compared to other households like yours (i.e., with the same number of people), do you think the total showering time of everyone in your house is ...?

	Count	Percentage
well above average	0	0.0%
slightly above average	1	33.3%
about average	1	33.3%
slightly below average	1	33.3%
well below average	0	0.0%
Total	3	100.0%

^{*}Note: If the participant was living alone, this question was skipped.

C1. In a typical week (i.e., 7 days), how many times do you shower at home:

	Low	High	Average
without washing your hair (in the shower)	0	7	1.90
including washing your hair (in the shower)	0	7	3.50
without shaving (in the shower)	0	7	4.00
including shaving (in the shower)	0	2	1.00
without brushing your teeth (in the shower)	0	7	3.30
including brushing your teeth (in the shower)	0	7	0.90

C2. In a typical week (i.e., 7 days), how many times do you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other)?

	Low	High	Average
Number of times showering somewhere else	0	4	0.40

C3. Do you turn the shower on and run it before actually using it?

	Count	Percentage
Yes (see below for more information)	6	60.0%
No	4	40.0%
Total	10	100.0%

	Low	High	Average
Number of minutes shower runs before being used	1	2	1.17

Note: The smallest increment that the online questionnaire would accept was one minute.



$\pmb{C4.} \ \ \text{Do you practise the ``turn on/turn off'' method of showering?}$

	Count	Percentage
Yes	0	0.0%
No	10	100.0%
Total	10	100.0%

${\sf C5.}$ How would you describe the amount of time you typically spend in the shower at home?

	Count	Percentage		
(a) showering without washing your hair				
I'm in and out	0	0.0%		
I shower quite quickly	4	80.0%		
I spend a reasonable amount of time in the shower	1	20.0%		
I spend quite a long time in the shower	0	0.0%		
I spend a long time in the shower	0	0.0%		
(b) showering <i>including</i> washing your hair				
I'm in and out	0	0.0%		
I shower quite quickly	3	33.3%		
I spend a reasonable amount of time in the shower	5	55.6%		
I spend quite a long time in the shower	0	0.0%		
I spend a long time in the shower	1	11.1%		
(c) showering without shaving				
I'm in and out	1	11.1%		
I shower quite quickly	5	55.6%		
I spend a reasonable amount of time in the shower	3	33.3%		
I spend quite a long time in the shower	0	0.0%		
I spend a long time in the shower	0	0.0%		
(d) showering <i>including</i> shaving				
I'm in and out	0	0.0%		
I shower quite quickly	1	14.3%		
I spend a reasonable amount of time in the shower	3	42.9%		
I spend quite a long time in the shower	1	14.3%		
I spend a long time in the shower	2	28.6%		



(e) showering without brushing your teeth in the shower			
I'm in and out	0	0.0%	
I shower quite quickly	5	83.3%	
I spend a reasonable amount of time in the shower	1	16.7%	
I spend quite a long time in the shower	0	0.0%	
I spend a long time in the shower	0	0.0%	
(f) showering including brushing your teeth in the sho	ower		
I'm in and out	0	0.0%	
I shower quite quickly	0	0.0%	
I spend a reasonable amount of time in the shower	3	100.0%	
I spend quite a long time in the shower	0	0.0%	
I spend a long time in the shower	0	0.0%	

${\sf C6.}\,$ How many minutes would you say you spend on average in the shower?

	Count	Percentage
(a) showering <i>without</i> washing your hair		
less than 5 minutes	2	40.0%
5 to 7 minutes	2	40.0%
8 to 10 minutes	0	0.0%
11 to 15 minutes	1	20.0%
more than 15 minutes	0	0.0%
(b) showering <i>including</i> washing your hair	·	
less than 5 minutes	0	0.0%
5 to 7 minutes	5	55.6%
8 to 10 minutes	2	22.2%
11 to 15 minutes	1	11.1%
more than 15 minutes	1	11.1%
(c) showering <i>without</i> shaving		
less than 5 minutes	2	22.2%
5 to 7 minutes	5	55.6%
8 to 10 minutes	0	0.0%
11 to 15 minutes	2	22.2%
more than 15 minutes	0	0.0%



(d) showering <i>including</i> shaving		
less than 5 minutes	0	0.0%
5 to 7 minutes	0	0.0%
8 to 10 minutes	5	71.4%
11 to 15 minutes	0	0.0%
more than 15 minutes	2	28.6%
(e) showering without brushing your teeth in the s	hower	
less than 5 minutes	1	16.7%
5 to 7 minutes	4	66.7%
8 to 10 minutes	0	0.0%
11 to 15 minutes	1	16.7%
more than 15 minutes	0	0.0%
(f) showering <i>including</i> brushing your teeth in the shower		
less than 5 minutes	0	0.0%
5 to 7 minutes	1	33.3%
8 to 10 minutes	1	33.3%
11 to 15 minutes	1	33.3%
more than 15 minutes	0	0.0%

$\pmb{C7.} \ \ \text{Do you think the time } \underline{\text{you personally}} \ \text{spend in the shower is } \dots ?$

	Count	Percentage
well above average	1	10.0%
slightly above average	1	10.0%
about average	6	60.0%
slightly below average	1	10.0%
well below average	1	10.0%
Couldn't say / no idea	0	0.0%
Total	10	100.0%



C8. Thinking about when you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other), which of the following statements best describes the length of your shower?

	Count	Percentage
My showers are always the same length whether I shower at home or elsewhere.	1	100.0%
My showers are generally shorter when I shower elsewhere.	0	0.0%
My showers are generally slightly longer when I shower elsewhere.	0	0.0%
My showers are generally <u>much longer</u> when I shower elsewhere.	0	0.0%
Couldn't say / no idea	0	0.0%
Total	1	100.0%

C9. Are your showering habits different on weekends?

	Count	Percentage
No	5	50.0%
Yes (see below for details)	5	50.0%
Total	10	100.0%

How showers are different on weekends:

- I'm not as rushed and tend to take my time more.
- I may not shower always in the morning, and spend slightly more time in the shower, perhaps 11 to 15 minutes.
- More time is spent in the shower.
- Shower times vary on weekends; sometimes I will not shower until night time.
- Usually I only shave on weekends as I have more time.



Group 3: Males only (October 27 – 5:30 pm)

18 to 24-year-olds, single, living at home with parent(s)/other family members, living with others (not family members), or living alone, mix of working and not working

A1. What is your gender?

	Count	Percentage
Male	11	100.0%
Total	11	100.0%

A3. Which of the following best describes your current marital status and living situation? Are you...

	Count	Percentage
Married or living with partner	0	0.0%
single, living at home with parent(s)/other family members	3	27.3%
single, living with others (not family members)	8	72.7%
single, living alone	0	0.0%
Total	11	100.0%

A4. Do any children currently live with you in your home?

	Count	Percentage
No	10	90.9%
Yes, one or more child(ren) 12 years of age or younger	0	0.0%
Yes, one or more adolescent child(ren) between 13 and 17 years of age	1	9.1%
Yes, one or more adult child(ren) 18 years of age or older	0	0.0%
Total	11	100.0%

Note: Respondents were permitted to choose more than one option.

A5. What is your current occupation? Are you ... ?

	Count	Percentage
a homemaker	0	0.0%
not working (either unemployed or students who are not working at a job)	2	18.2%
working part-time (including students who work part-time)	7	63.6%
working full-time (including students who work full-time)	2	18.2%
Total	11	100.0%



A6. [IF A5 GREATER>2] Would you say that your occupation (i.e., what you do in the way of a job) influences your showering habits?

	Count	Percentage
No	5	55.6%
Yes (see below for details)	4	44.4%
Total	9	100.0%

How occupation affects showering habits:

- I shower about twice a day: once in the morning and once in the evening when I get home.
- I will have to shower before each shift in order to maintain my personal hygiene.
- Natural stress from being a student plus my work results in occasional (approx. three times per week) longer showers (approx. five minutes longer than usual).
- I work in a kitchen as well as instruct dance, so I shower daily.

A7. (a) What type of a shower do you have in your home?

	Count	Percentage
Very water efficient (7 litres per minute or less)	1	9.1%
Water efficient (just over 7 to 9 litres per minute)	3	27.3%
Not water efficient (10 litres per minute or more)	0	0.0%
Don't know	7	63.6%
Total	11	100.0%

(b) Does your shower have multiple showerheads?

	Count	Percentage
Yes	3	27.3%
No	8	72.7%
Total	11	100.0%

B1. Including yourself, how many people are currently living in your household? Please specify the number of people.

	Smallest household	Largest household	Average household
Adult(s) (18 years of age or older; this may include roommates)	2	5	3.00
Adolescent(s) aged 13 to 17 years	0	2	0.18
Child(ren) aged 12 years or younger	0	0	0.00



B2. In a typical week (i.e., 7 days), what is the <u>average</u> TOTAL number of showers taken by ALL the various people in your household?

	Low	High	Average
Adult(s) (18 years of age or older)			
showering at home	7	35	18.91
showering elsewhere	0	20	4.00
Adolescent(s) aged 13 to 17 years			
showering at home	20	20	20.00
showering elsewhere	0	0	0.00

^{*}Note: The low, high and average values are for adolescents and children living in the home. Households without adolescents or children are not included in the calculation.

B3. Including yourself, what is the <u>usual</u> time of day that people in your household take showers **at home**?

	Count	Percentage			
Adult(s) (18 years of age or older)					
In the morning	6	54.5%			
In the evening	1	9.1%			
It varies too much to say	4	36.4%			
Adolescent(s) aged 13 to 17 years					
In the morning	1	100.0%			

B4. Thinking now about your household as a whole*, and compared to other households like yours (i.e., with the same number of people), do you think the total showering time of everyone in your house is ...?

	Count	Percentage
well above average	1	9.1%
slightly above average	2	18.2%
about average	5	45.5%
slightly below average	1	9.1%
well below average	0	0.0%
Couldn't say / no idea	2	18.2%
Total	11	100.0%

^{*}Note: If the participant was living alone, this question was skipped.



C1. In a typical week (i.e., 7 days), how many times do you shower at home:

	Low	High	Average
without washing your hair (in the shower)	0	4	1.91
including washing your hair (in the shower)	0	10	5.27
without shaving (in the shower)	0	10	5.45
including shaving (in the shower)	0	0	0.00
without brushing your teeth (in the shower)	0	10	4.73
including brushing your teeth (in the shower)	0	6	0.73

C2. In a typical week (i.e., 7 days), how many times do you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other)?

	Low	High	Average
Number of times showering somewhere else	0	4	0.82

C3. Do you turn the shower on and run it before actually using it?

	Count	Percentage
Yes (see below for more information)	4	36.4%
No	7	63.6%
Total	11	100.0%

	Low	High	Average
Number of minutes shower runs before being used	1	2	1.25

Note: The smallest increment that the online questionnaire would accept was one minute.

C4. Do you practise the "turn on/turn off" method of showering?

	Count	Percentage
Yes	1	9.1%
No	10	90.9%
Total	11	100.0%



 ${\sf C5.}\,$ How would you describe the amount of time you typically spend in the shower at home?

	Count	Percentage
(a) showering without washing your hair		
I'm in and out	3	42.9%
I shower quite quickly	1	14.3%
I spend a reasonable amount of time in the shower	3	42.9%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%
(b) showering <i>including</i> washing your hair		•
I'm in and out	0	0.0%
I shower quite quickly	5	50.0%
I spend a reasonable amount of time in the shower	5	50.0%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%
(c) showering <i>without</i> shaving		•
I'm in and out	2	22.2%
I shower quite quickly	2	22.2%
I spend a reasonable amount of time in the shower	5	55.6%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%
(d) showering <i>including</i> shaving		•
I'm in and out	0	0.0%
I shower quite quickly	0	0.0%
I spend a reasonable amount of time in the shower	0	0.0%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%
(e) showering without brushing your teeth in the show	wer	
I'm in and out	1	12.5%
I shower quite quickly	2	25.0%
I spend a reasonable amount of time in the shower	5	62.5%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%



(f) showering including brushing your teeth in the shower		
I'm in and out 2 66.7%		
I shower quite quickly		0.0%
I spend a reasonable amount of time in the shower	0	0.0%
I spend quite a long time in the shower	1	33.3%
I spend a long time in the shower 0 0.0%		0.0%

${\sf C6.}\,$ How many minutes would you say you spend on average in the shower?

	Count	Percentage	
(a) showering <i>without</i> washing your hair			
less than 5 minutes	3	42.9%	
5 to 7 minutes	3	42.9%	
8 to 10 minutes	1	14.3%	
11 to 15 minutes	0	0.0%	
more than 15 minutes	0	0.0%	
(b) showering including washing your hair			
less than 5 minutes	2	20.0%	
5 to 7 minutes	4	40.0%	
8 to 10 minutes	2	20.0%	
11 to 15 minutes	2	20.0%	
more than 15 minutes	0	0.0%	
(c) showering without shaving			
less than 5 minutes	4	44.4%	
5 to 7 minutes	1	11.1%	
8 to 10 minutes	3	33.3%	
11 to 15 minutes	1	11.1%	
more than 15 minutes	0	0.0%	
(d) showering <i>including</i> shaving			
less than 5 minutes	0	0.0%	
5 to 7 minutes	0	0.0%	
8 to 10 minutes	0	0.0%	
11 to 15 minutes	0	0.0%	
more than 15 minutes	0	0.0%	



(e) showering without brushing your teeth in the shower			
less than 5 minutes	3	37.5%	
5 to 7 minutes	1	12.5%	
8 to 10 minutes	3	37.5%	
11 to 15 minutes	1	12.5%	
more than 15 minutes	0	0.0%	
(f) showering <i>including</i> brushing your teeth in the shower			
less than 5 minutes	1	33.3%	
5 to 7 minutes	1	33.3%	
8 to 10 minutes	0	0.0%	
11 to 15 minutes	0	0.0%	
more than 15 minutes	1	33.3%	

${\sf C7.}\,\,$ Do you think the time <u>you personally</u> spend in the shower is ...?

	Count	Percentage
well above average	0	0.0%
slightly above average	2	18.2%
about average	4	36.4%
slightly below average	3	27.3%
well below average	2	18.2%
Couldn't say / no idea	0	0.0%
Total	11	100.0%

C8. Thinking about when you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other), which of the following statements best describes the length of your shower?

	Count	Percentage
My showers are always the same length whether I shower at home or elsewhere.	1	33.3%
My showers are generally <u>shorter</u> when I shower elsewhere.	1	33.3%
My showers are generally <u>slightly longer</u> when I shower elsewhere.	1	33.3%
My showers are generally <u>much longer</u> when I shower elsewhere.	0	0.0%
Couldn't say / no idea	0	0.0%
Total	3	100.0%



C9. Are your showering habits different on weekends?

	Count	Percentage
No	10	90.9%
Yes (see below for details)	1	9.1%
Total	11	100.0%

How showers are different on weekends:

• If I am going out, I will shower twice in one day.



Group 4: Females only (October 28 – 5:30 pm)

18 to 24-year-olds, single, living at home with parent(s), living with others (not family members), or living alone, mix of working and not working

A1. What is your gender?

	Count	Percentage
Male	0	0.0%
Female	11	100.0%
Total	11	100.0%

A3. Which of the following best describes your current marital status and living situation? Are you...

	Count	Percentage
Married or living with partner	0	0.0%
single, living at home with parent(s)/other family members	6	54.5%
single, living with others (not family members)	5	45.5%
single, living alone	0	0.0%
Total	11	100.0%

A4. Do any children currently live with you in your home?

	Count	Percentage
No	7	63.6%
Yes, one or more child(ren) 12 years of age or younger	0	0.0%
Yes, one or more adolescent child(ren) between 13 and 17 years of age	2	18.2%
Yes, one or more adult child(ren) 18 years of age or older	4	36.4%
Total	13	118.2%

Note: Respondents were permitted to choose more than one option.

A5. What is your current occupation? Are you ...?

	Count	Percentage
a homemaker	0	0.0%
not working (either unemployed or students who are not working at a job)	2	18.2%
working part-time (including students who work part-time)	8	72.7%
working full-time (including students who work full-time)	1	9.1%
Total	11	100.0%



A6. [IF A5 GREATER>2] Would you say that your occupation (i.e., what you do in the way of a job) influences your showering habits?

	Count	Percentage
No	6	66.7%
Yes (see below for details)	3	33.3%
Total	9	100.0%

How occupation affects showering habits:

- If doing hard physical work I will shower more.
- I'm usually tired after work, and I smell like fast food too. A shower wakes me up and makes me feel and smell clean.
- I observe an excess amount of waste in health care on a daily basis, which prompts me to be conscious of my consumption of natural resources and the waste I produce.

A7. (a) What type of a shower do you have in your home?

	Count	Percentage
Very water efficient (7 litres per minute or less)	0	0.0%
Water efficient (just over 7 to 9 litres per minute)	2	18.2%
Not water efficient (10 litres per minute or more)	1	9.1%
Don't know	8	72.7%
Total	11	100.0%

(b) Does your shower have multiple showerheads?

	Count	Percentage
Yes	0	0.0%
No	11	100.0%
Total	11	100.0%

B1. Including yourself, how many people are currently living in your household? Please specify the number of people.

	Smallest household	Largest household	Average household
Adult(s) (18 years of age or older; this may include roommates)	2	6	3.64
Adolescent(s) aged 13 to 17 years	0	2	0.27
Child(ren) aged 12 years or younger	0	0	0.00



B2. In a typical week (i.e., 7 days), what is the <u>average</u> TOTAL number of showers taken by ALL the various people in your household?

	Low	High	Average
Adult(s) (18 years of age or older)			
showering at home	4	37	19.18
showering elsewhere	0	6	1.09
Adolescent(s) aged 13 to 17 years			
showering at home	4	15	9.50
showering elsewhere	0	0	0.00

^{*}Note: The low, high and average values are for adolescents and children living in the home. Households without adolescents or children are not included in the calculation.

B3. Including yourself, what is the <u>usual</u> time of day that people in your household take showers **at home**?

	Count	Percentage	
Adult(s) (18 years of age or older)			
In the morning	2	18.2%	
In the evening	1	9.1%	
It varies too much to say	8	72.7%	
Adolescent(s) aged 13 to 17 years			
In the morning	0	0.0%	
In the evening	1	50.0%	
It varies too much to say	1	50.0%	

B4. Thinking now about your household as a whole*, and compared to other households like yours (i.e., with the same number of people), do you think the total showering time of everyone in your house is ...?

	Count	Percentage
well above average	1	9.1%
slightly above average	2	18.2%
about average	6	54.5%
slightly below average	2	18.2%
well below average	0	0.0%
Couldn't say / no idea	0	0.0%
Total	11	100.0%

^{*}Note: If the participant was living alone, this question was skipped.



C1. In a typical week (i.e., 7 days), how many times do you shower at home:

	Low	High	Average
without washing your hair (in the shower)	0	8	1.73
including washing your hair (in the shower)	2	7	3.64
without shaving (in the shower)	0	6	2.45
including shaving (in the shower)	1	4	2.55
without brushing your teeth (in the shower)	0	7	3.00
including brushing your teeth (in the shower)	0	7	0.73

C2. In a typical week (i.e., 7 days), how many times do you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other)?

	Low	High	Average
Number of times showering somewhere else	0	3	0.55

C3. Do you turn the shower on and run it before actually using it?

	Count	Percentage
Yes (see below for more information)	8	72.7%
No	3	27.3%
Total	11	100.0%

		Low	High	Average
Number of minutes shower runs before being	ng used	1	3	1.50

Note: The smallest increment that the online questionnaire would accept was one minute.

C4. Do you practise the "turn on/turn off" method of showering?

	Count	Percentage
Yes	1	9.1%
No	10	90.9%
Total	11	100.0%



 ${\sf C5.}\,$ How would you describe the amount of time you typically spend in the shower at home?

	Count	Percentage
(a) showering without washing your hair		
I'm in and out	0	0.0%
I shower quite quickly	4	80.0%
I spend a reasonable amount of time in the shower	1	20.0%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%
(b) showering <i>including</i> washing your hair		•
I'm in and out	1	9.1%
I shower quite quickly	3	27.3%
I spend a reasonable amount of time in the shower	1	9.1%
I spend quite a long time in the shower	4	36.4%
I spend a long time in the shower	2	18.2%
(c) showering <i>without</i> shaving		•
I'm in and out	1	12.5%
I shower quite quickly	3	37.5%
I spend a reasonable amount of time in the shower	4	501.0%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%
(d) showering <i>including</i> shaving		•
I'm in and out	0	0.0%
I shower quite quickly	3	27.3%
I spend a reasonable amount of time in the shower	3	27.3%
I spend quite a long time in the shower	2	18.2%
I spend a long time in the shower	3	27.3%
(e) showering without brushing your teeth in the show	wer	
I'm in and out	1	14.3%
I shower quite quickly	2	28.6%
I spend a reasonable amount of time in the shower	3	42.9%
I spend quite a long time in the shower	1	14.3%
I spend a long time in the shower	0	0.0%



(f) showering including brushing your teeth in the shower		
I'm in and out	0	0.0%
I shower quite quickly	1	50.0%
I spend a reasonable amount of time in the shower	1	50.0%
I spend quite a long time in the shower		0.0%
I spend a long time in the shower	0	0.0%

$\pmb{C6.} \ \ \text{How many minutes would you say you spend on average in the shower?}$

	Count	Percentage	
(a) showering without washing your hair			
less than 5 minutes	3	60.0%	
5 to 7 minutes	1	20.0%	
8 to 10 minutes	1	20.0%	
11 to 15 minutes	0	0.0%	
more than 15 minutes	0	0.0%	
(b) showering <i>including</i> washing your hair			
less than 5 minutes	1	9.1%	
5 to 7 minutes	1	9.1%	
8 to 10 minutes	5	45.5%	
11 to 15 minutes	1	9.1%	
more than 15 minutes	3	27.3%	
(c) showering without shaving			
less than 5 minutes	1	12.5%	
5 to 7 minutes	4	50.0%	
8 to 10 minutes	2	25.0%	
11 to 15 minutes	1	12.5%	
more than 15 minutes	0	0.0%	
(d) showering <i>including</i> shaving	·		
less than 5 minutes	0	0.0%	
5 to 7 minutes	1	9.1%	
8 to 10 minutes	3	27.3%	
11 to 15 minutes	5	45.5%	
more than 15 minutes	2	18.2%	



(e) showering without brushing your teeth in the shower		
less than 5 minutes	1	14.3%
5 to 7 minutes	3	42.9%
8 to 10 minutes	2	28.6%
11 to 15 minutes	1	14.3%
more than 15 minutes	0	0.0%
(f) showering <i>including</i> brushing your teeth in the shower		
less than 5 minutes	0	0.0%
5 to 7 minutes	0	0.0%
8 to 10 minutes	1	50.0%
11 to 15 minutes	1	50.0%
more than 15 minutes	0	0.0%

${\sf C7.}\,\,$ Do you think the time <u>you personally</u> spend in the shower is ...?

	Count	Percentage
well above average	0	0.0%
slightly above average	4	36.4%
about average	3	27.3%
slightly below average	3	27.3%
well below average	1	9.1%
Couldn't say / no idea	0	0.0%
Total	11	100.0%

C8. Thinking about when you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other), which of the following statements best describes the length of your shower?

	Count	Percentage
My showers are always the same length whether I shower at home or elsewhere.	1	25.0%
My showers are generally <u>shorter</u> when I shower elsewhere.	3	75.0%
My showers are generally <u>slightly longer</u> when I shower elsewhere.	0	0.0%
My showers are generally <u>much longer</u> when I shower elsewhere.	0	0.0%
Couldn't say / no idea	0	0.0%
Total	4	100.0%



C9. Are your showering habits different on weekends?

	Count	Percentage
No	8	72.7%
Yes (see below for details)	3	27.3%
Total	11	100.0%

How showers are different on weekends:

- After a late night drinking, it helps a hangover.
- I'm not in a rush usually so I can take a little longer; this is usually when I shave everything (legs, armpits, pubic hair) as opposed to just maintenance shaving (armpits) during the week.
- Sometimes both days depending on my work schedule. I'll usually have a quick one when I get home: sometimes washing my hair and going through everything else; sometimes just washing down and getting out.



Group 5: Mixed gender (October 27 – 7:45 pm)

25 to 34-year-olds

A1. What is your gender?

	Count	Percentage
Male	5	45.5%
Female	6	54.5%
Total	11	100.0%

A4. Do any children currently live with you in your home?

	Count	Percentage
No	9	81.8%
Yes, one or more child(ren) 12 years of age or younger	2	18.2%
Yes, one or more adolescent child(ren) between 13 and 17 years of age	0	0.0%
Yes, one or more adult child(ren) 18 years of age or older	0	0.0%
Total	11	100.0%

Note: Respondents were permitted to choose more than one option.

A5. What is your current occupation? Are you...?

	Count	Percentage
a homemaker	1	9.1%
not working (either unemployed or students who are not working at a job)	1	9.1%
working part-time (including students who work part-time)		27.3%
working full-time (including students who work full-time)	6	54.5%
Total	11	100.0%



A6. [IF A5 GREATER>2] Would you say that your occupation (i.e., what you do in the way of a job) influences your showering habits?

	Count	Percentage
No	3	33.3%
Yes (see below for details)	6	66.7%
Total	9	100.0%

How occupation affects showering habits:

- I am in constant contact with people all day so showering is the first thing I do when I get home.
- I enjoy taking long showers in the morning, but on days that I work, I don't have as much time as I'd like.
- I need to be appropriately groomed and clean for work each morning.
- I am a shift worker: 12 hour shifts, 2 days, 2 nights,4 days off.
- I work in customer service so I need to look good. I also deal with food, so I need to be clean prior to work. Work has me on my feet, so usually I need a shower after work.
- I work nights and deal with food and ice cream. Most nights I must shower after work.

A7. (a) What type of a shower do you have in your home?

	Count	Percentage
Very water efficient (7 litres per minute or less)	0	0.0%
Water efficient (just over 7 to 9 litres per minute)	6	54.5%
Not water efficient (10 litres per minute or more)	0	0.0%
Don't know	5	45.5%
Total	11	100.0%

(b) Does your shower have multiple showerheads?

	Count	Percentage
Yes	1	9.1%
No	10	90.9%
Total	11	100.0%



B1. Including yourself, how many people are currently living in your household? Please specify the number of people.

	Smallest household	Largest household	Average household
Adult(s) (18 years of age or older; this may include roommates)	1	3	1.91
Adolescent(s) aged 13 to 17 years	0	0	0.00
Child(ren) aged 12 years or younger	0	4	0.45

B2. In a typical week (i.e., 7 days), what is the <u>average</u> TOTAL number of showers taken by ALL the various people in your household?

	Low	High	Average
Adult(s) (18 years of age or older)			
showering at home	7	22	15.45
showering elsewhere	0	6.0	0.91
Child(ren) aged 12 years or younger			
showering at home	0	2	1.00
showering elsewhere	0	3	1.50

^{*}Note: The low, high and average values are for adolescents and children living in the home. Households without adolescents or children are not included in the calculation.

B3. Including yourself, what is the <u>usual</u> time of day that people in your household take showers **at home**?

	Count	Percentage			
Adult(s) (18 years of age or older)	Adult(s) (18 years of age or older)				
In the morning	2	18.2%			
In the evening	3	27.3%			
It varies too much to say	6	54.5%			
Child(ren) aged 12 years or younger					
In the evening before bed	1	50.0%			
They only bathe; they don't shower	1	50.0%			



B4. Thinking now about your household as a whole*, and compared to other households like yours (i.e., with the same number of people), do you think the total showering time of everyone in your house is ...?

	Count	Percentage
well above average	0	0.0%
slightly above average	3	33.3%
about average	4	44.4%
slightly below average	1	11.1%
well below average	1	11.1%
Couldn't say / no idea	0	0.0%
Total	9	100.0%

^{*}Note: If the participant was living alone, this question was skipped.

C1. In a typical week (i.e., 7 days), how many times do you shower at home:

	Low	High	Average
without washing your hair (in the shower)	0	12	2.82
including washing your hair (in the shower)	1	12	5.27
without shaving (in the shower)	2	12	5.73
including shaving (in the shower)	0	7	2.82
without brushing your teeth (in the shower)	0	14	4.91
including brushing your teeth (in the shower)	0	7	1.09

C2. In a typical week (i.e., 7 days), how many times do you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other)?

	Low	High	Average
Number of times showering somewhere else	0	4	0.73

C3. Do you turn the shower on and run it before actually using it?

	Count	Percentage
Yes (see below for more information)	8	72.7%
No	3	27.3%
Total	11	100.0%

	Low	High	Average
Number of minutes shower runs before being used	1	3	1.38

Note: The smallest increment that the online questionnaire would accept was one minute.



$\pmb{C4.} \ \ \text{Do you practise the ``turn on/turn off'' method of showering?}$

	Count	Percentage
Yes	3	27.3%
No	8	72.7%
Total	11	100.0%

${\sf C5.}$ How would you describe the amount of time you typically spend in the shower at home?

	Count	Percentage	
(a) showering without washing your hair			
I'm in and out	1	16.7%	
I shower quite quickly	4	66.7%	
I spend a reasonable amount of time in the shower	0	0.0%	
I spend quite a long time in the shower	1	16.7%	
I spend a long time in the shower	0	0.0%	
(b) showering <i>including</i> washing your hair			
I'm in and out	0	0.0%	
I shower quite quickly	3	27.3%	
I spend a reasonable amount of time in the shower	5	45.5%	
I spend quite a long time in the shower	3	27.3%	
I spend a long time in the shower	0	0.0%	
(c) showering without shaving			
I'm in and out	1	9.1%	
I shower quite quickly	7	63.6%	
I spend a reasonable amount of time in the shower	1	9.1%	
I spend quite a long time in the shower	2	18.2%	
I spend a long time in the shower	0	0.0%	
(d) showering <i>including</i> shaving		<u> </u>	
I'm in and out	0	0.0%	
I shower quite quickly	1	14.3%	
I spend a reasonable amount of time in the shower	4	57.1%	
I spend quite a long time in the shower	2	28.6%	
I spend a long time in the shower	0	0.0%	



(e) showering without brushing your teeth in the shower			
I'm in and out	0	0.0%	
I shower quite quickly	4	57.1%	
I spend a reasonable amount of time in the shower	1	14.3%	
I spend quite a long time in the shower	2	28.6%	
I spend a long time in the shower	0	0.0%	
(f) showering <i>including</i> brushing your teeth in the shower			
I'm in and out	0	0.0%	
I shower quite quickly	1	50.0%	
I spend a reasonable amount of time in the shower	0	0.0%	
I spend quite a long time in the shower	1	50.0%	
I spend a long time in the shower	0	0.0%	

$\pmb{C6.} \ \ \text{How many minutes would you say you spend on average in the shower?}$

	Count	Percentage	
(a) showering without washing your hair			
less than 5 minutes	3	50.0%	
5 to 7 minutes	1	16.7%	
8 to 10 minutes	1	16.7%	
11 to 15 minutes	0	0.0%	
more than 15 minutes	1	16.7%	
(b) showering <i>including</i> washing your hair	•		
less than 5 minutes	2	18.2%	
5 to 7 minutes	1	9.1%	
8 to 10 minutes	3	27.3%	
11 to 15 minutes	3	27.3%	
more than 15 minutes	2	18.2%	
(c) showering without shaving			
less than 5 minutes	4	36.4%	
5 to 7 minutes	1	9.1%	
8 to 10 minutes	4	36.4%	
11 to 15 minutes	1	9.1%	
more than 15 minutes	1	9.1%	



(d) showering <i>including</i> shaving			
less than 5 minutes	0	0.0%	
5 to 7 minutes	0	0.0%	
8 to 10 minutes	4	57.1%	
11 to 15 minutes	2	28.6%	
more than 15 minutes	1	14.3%	
(e) showering without brushing your teeth in the shower			
less than 5 minutes	2	28.6%	
5 to 7 minutes	1	14.3%	
8 to 10 minutes	2	28.6%	
11 to 15 minutes	1	14.3%	
more than 15 minutes	1	14.3%	
(f) showering including brushing your teeth in the sl	hower		
less than 5 minutes	0	0.0%	
5 to 7 minutes	1	50.0%	
8 to 10 minutes	0	0.0%	
11 to 15 minutes	0	0.0%	
more than 15 minutes	1	50.0%	

${\sf C7.}\,\,$ Do you think the time <u>you personally</u> spend in the shower is ...?

	Count	Percentage
well above average	0	0.0%
slightly above average	1	9.1%
about average	6	54.5%
slightly below average	2	18.2%
well below average	2	18.2%
Couldn't say / no idea	0	0.0%
Total	11	100.0%



C8. Thinking about when you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other), which of the following statements best describes the length of your shower?

	Count	Percentage
My showers are always the same length whether I shower at home or elsewhere.	0	0.0%
My showers are generally <u>shorter</u> when I shower elsewhere.	2	100.0%
My showers are generally <u>slightly longer</u> when I shower elsewhere.	0	0.0%
My showers are generally <u>much longer</u> when I shower elsewhere.	0	0.0%
Couldn't say / no idea	0	0.0%
Total	2	100.0%

C9. Are your showering habits different on weekends?

	Count	Percentage
No	6	54.5%
Yes (see below for details)	5	45.5%
Total	11	100.0%

How showers are different on weekends:

- I'm not in a rush; consequently, I shower for a longer period of time.
- I may miss a day on the weekend if I'm not actively working.
- I might sometimes skip showering on Saturday because I often sleep in and stay home or just go out to the store.
- I work weekends. If I bike to work then I get showered there. Then after work, I'll have a shower when I get home.
- Maybe I shower a little longer if I have a few extra minutes on the weekend, but not too much longer.



Group 6: Group 6: Mixed gender (October 23 – 6:00 pm)

35 to 54-year-olds (preferably those with children at home, teenagers if possible) MAXIMUM OF 2 WITHOUT CHILDREN

A1. What is your gender?

	Count	Percentage
Male	4	33.3%
Female	8	66.7%
Total	12	100.0%

A4. Do any children currently live with you in your home?

	Count	Percentage
No	2	16.7%
Yes, one or more child(ren) 12 years of age or younger	6	50.0%
Yes, one or more adolescent child(ren) between 13 and 17 years of age	6	50.0%
Yes, one or more adult child(ren) 18 years of age or older	2	16.7%
Total	16	133.4%

Note: Respondents were permitted to choose more than one option.

A5. What is your current occupation? Are you ...?

	Count	Percentage
a homemaker	3	25.0%
not working (either unemployed or students who are not working at a job)	0	0.0%
working part-time (including students who work part-time)	1	8.3%
working full-time (including students who work full-time)	8	66.7%
Total	12	100.0%



A6. [IF A5 GREATER>2] Would you say that your occupation (i.e., what you do in the way of a job) influences your showering habits?

	Count	Percentage
No	5	55.6%
Yes (see below for details)	4	44.4%
Total	9	100.0%

How occupation affects showering habits:

- Due to the physical nature of my work in the outdoors it is quite imperative to shower almost daily.
- I work in health care.
- I often run or ride my bike to work so I shower at work after arriving.
- I'm meeting people every day.

A7. (a) What type of a shower do you have in your home?

	Count	Percentage
Very water efficient (7 litres per minute or less)	1	8.3%
Water efficient (just over 7 to 9 litres per minute)	7	58.3%
Not water efficient (10 litres per minute or more)	0	0.0%
Don't know	4	33.3%
Total	12	100.0%

(b) Does your shower have multiple showerheads?

	Count	Percentage
Yes	1	8.3%
No	11	91.7%
Total	12	100.0%

B1. Including yourself, how many people are currently living in your household? Please specify the number of people.

	Smallest household	Largest household	Average household
Adult(s) (18 years of age or older; this may include roommates)	1	3	2.08
Adolescent(s) aged 13 to 17 years	0	2	0.75
Child(ren) aged 12 years or younger	0	2	0.83



B2. In a typical week (i.e., 7 days), what is the <u>average</u> TOTAL number of showers taken by ALL the various people in your household?

	Low	High	Average
Adult(s) (18 years of age or older)			
showering at home	5	16	11.00
showering elsewhere	0	8	1.30
Adolescent(s) aged 13 to 17 years*			•
showering at home	5	15	8.50
showering elsewhere	0	3	0.50
Child(ren) aged 12 years or younger*			
showering at home	0	6	4.00
showering elsewhere	0	2	0.67

*Note: The low, high and average values are for adolescents and children living in the home. Households without adolescents or children are not included in the calculation.

B3. Including yourself, what is the <u>usual</u> time of day that people in your household take showers **at home**?

	Count	Percentage
Adult(s) (18 years of age or older)		
In the morning	8	66.7%
In the evening	2	16.7%
It varies too much to say	2	16.7%
Adolescent(s) aged 13 to 17 years		
In the morning	3	50.0%
In the evening	2	33.3%
It varies too much to say	1	16.7%
Child(ren) aged 12 years or younger		
In the morning	2	33.3%
In the evening	3	50.0%
They only bathe; they don't shower	1	16.7%



B4. Thinking now about your household as a whole*, and compared to other households like yours (i.e., with the same number of people), do you think the total showering time of everyone in your house is ...?

	Count	Percentage
well above average	0	0.0%
slightly above average	3	25.0%
about average	6	50.0%
slightly below average	2	16.7%
well below average	0	0.0%
Couldn't say / no idea	1	8.3%
Total	12	100.0%

^{*}Note: If the participant was living alone, this question was skipped.

C1. In a typical week (i.e., 7 days), how many times do you shower at home:

	Low	High	Average
without washing your hair (in the shower)	0	7	1.17
including washing your hair (in the shower)	2	7	5.58
without shaving (in the shower)	0	7	3.92
including shaving (in the shower)	0	7	2.17
without brushing your teeth (in the shower)	0	7	4.08
including brushing your teeth (in the shower)	0	9	1.33

C2. In a typical week (i.e., 7 days), how many times do you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other)?

	Low	High	Average
Number of times showering somewhere else	0	5	0.92

C3. Do you turn the shower on and run it before actually using it?

	Count	Percentage
Yes (see below for more information)	3	25.0%
No	9	75.0%
Total	12	100.0%

	Low	High	Average
Number of minutes shower runs before being used	1	5	2.33

Note: The smallest increment that the online questionnaire would accept was one minute.



$\pmb{C4.} \ \ \text{Do you practise the ``turn on/turn off'' method of showering?}$

	Count	Percentage
Yes	1	8.3%
No	11	91.7%
Total	12	100.0%

${\sf C5.}$ How would you describe the amount of time you typically spend in the shower at home?

	Count	Percentage	
(a) showering without washing your hair			
I'm in and out	0	0.0%	
I shower quite quickly	4	100.0%	
I spend a reasonable amount of time in the shower	0	0.0%	
I spend quite a long time in the shower	0	0.0%	
I spend a long time in the shower	0	0.0%	
(b) showering <i>including</i> washing your hair			
I'm in and out	1	8.3%	
I shower quite quickly	5	41.7%	
I spend a reasonable amount of time in the shower	6	50.0%	
I spend quite a long time in the shower	0	0.0%	
I spend a long time in the shower	0	0.0%	
(c) showering without shaving			
I'm in and out	1	10.0%	
I shower quite quickly	5	50.0%	
I spend a reasonable amount of time in the shower	4	40.0%	
I spend quite a long time in the shower	0	0.0%	
I spend a long time in the shower	0	0.0%	
(d) showering <i>including</i> shaving			
I'm in and out	0	0.0%	
I shower quite quickly	2	22.2%	
I spend a reasonable amount of time in the shower	6	66.7%	
I spend quite a long time in the shower	1	11.1%	
I spend a long time in the shower	0	0.0%	



(e) showering without brushing your teeth in the shower		
I'm in and out	2	22.2%
I shower quite quickly	3	33.3%
I spend a reasonable amount of time in the shower	4	44.4%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%
(f) showering <i>including</i> brushing your teeth in the shower		
I'm in and out	0	0.0%
I shower quite quickly	2	100.0%
I spend a reasonable amount of time in the shower	0	0.0%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%

${\sf C6.}\,$ How many minutes would you say you spend on average in the shower?

	Count	Percentage	
(a) showering without washing your hair			
less than 5 minutes	2	50.0%	
5 to 7 minutes	2	50.0%	
8 to 10 minutes	0	0.0%	
11 to 15 minutes	0	0.0%	
more than 15 minutes	0	0.0%	
(b) showering <i>including</i> washing your hair	•		
less than 5 minutes	2	16.7%	
5 to 7 minutes	5	41.7%	
8 to 10 minutes	4	33.3%	
11 to 15 minutes	0	0.0%	
more than 15 minutes	1	8.3%	
(c) showering without shaving			
less than 5 minutes	2	20.0%	
5 to 7 minutes	5	50.0%	
8 to 10 minutes	3	30.0%	
11 to 15 minutes	0	0.0%	
more than 15 minutes	0	0.0%	



(d) showering <i>including</i> shaving		
less than 5 minutes	1	11.1%
5 to 7 minutes	1	11.1%
8 to 10 minutes	2	22.2%
11 to 15 minutes	4	44.4%
more than 15 minutes	1	11.1%
(e) showering without brushing your teeth in the sho	wer	
less than 5 minutes	2	22.2%
5 to 7 minutes	4	44.4%
8 to 10 minutes	3	33.3%
11 to 15 minutes	0	0.0%
more than 15 minutes	0	0.0%
(f) showering including brushing your teeth in the sh	ower	
less than 5 minutes	1	50.0%
5 to 7 minutes	0	0.0%
8 to 10 minutes	1	50.0%
11 to 15 minutes	0	0.0%
more than 15 minutes	0	0.0%

$\pmb{C7.} \ \ \text{Do you think the time } \underline{\text{you personally}} \ \text{spend in the shower is } \dots ?$

	Count	Percentage
well above average	0	0.0%
slightly above average	3	25.0%
about average	5	41.7%
slightly below average	2	16.7%
well below average	1	8.3%
Couldn't say / no idea	1	8.3%
Total	12	100.0%



C8. Thinking about when you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other), which of the following statements best describes the length of your shower?

	Count	Percentage
My showers are always the same length whether I shower at home or elsewhere.	1	33.3%
My showers are generally <u>shorter</u> when I shower elsewhere.	2	66.7%
My showers are generally <u>slightly longer</u> when I shower elsewhere.	0	0.0%
My showers are generally <u>much longer</u> when I shower elsewhere.	0	0.0%
Couldn't say / no idea	0	0.0%
Total	3	100.0%

C9. Are your showering habits different on weekends?

	Count	Percentage
No	6	50.0%
Yes (see below for details)	6	50.0%
Total	12	100.0%

How showers are different on weekends:

- I may shower later in the morning after a fitness activity or evening before going out.
- I spend a couple extra minutes.
- They're often later in the day.
- I play sports on the weekend, so afterwards I usually [shower in the] late afternoon or early evening.
- They're quicker, because I'm not as dirty from work.
- Slightly longer on weekends.



Group 7: Mixed gender (October 29 – 5:30 pm)

55 years of age or older

A1. What is your gender?

	Count	Percentage
Male	6	60.0%
Female	4	40.0%
Total	10	100.0%

A4. Do any children currently live with you in your home?

	Count	Percentage
No	10	100.0%
Yes, one or more child(ren) 12 years of age or younger	0	0.0%
Yes, one or more adolescent child(ren) between 13 and 17 years of age	0	0.0%
Yes, one or more adult child(ren) 18 years of age or older	0	0.0%
Total	10	100.0%

Note: Respondents were permitted to choose more than one option.

A5. What is your current occupation? Are you...?

	Count	Percentage
a homemaker	1	10.0%
not working (either unemployed or students who are not working at a job)	0	0.0%
working part-time (including students who work part-time)	1	10.0%
working full-time (including students who work full-time)	1	10.0%
retired	6	60.0%
Other (homemaker and volunteer)	1	10.0%
Total	10	100.0%

A6. [IF A5 GREATER>2] Would you say that your occupation (i.e., what you do in the way of a job) influences your showering habits?

	Count	Percentage
No	7	77.8%
Yes (see below for details)	2	22.2%
Total	9	100.0%



How occupation affects showering habits:

- I prefer to shower before going to work in the morning. I have to go to work. I don't like
 working. Hence I leave getting ready for work to the last possible minute, so my
 shortest possible window of time for getting ready for work, including showering and
 getting my cats fixed up for the day is about 1/2 an hour. This necessitates a pretty
 short shower.
- I would normally shower first thing in the morning, but if I have a woodworking project that I have to complete or if there is a gardening job that has to be taken care of, or if I am detailing a car...then I would also have another shower later in the day or early evening.

A7. (a) What type of a shower do you have in your home?

	Count	Percentage
Very water efficient (7 litres per minute or less)	3	30.0%
Water efficient (just over 7 to 9 litres per minute)	1	10.0%
Not water efficient (10 litres per minute or more)	0	0.0%
Don't know	6	60.0%
Total	10	100.0%

(b) Does your shower have multiple showerheads?

	Count	Percentage
Yes	0	0.0%
No	10	100.0%
Total	10	100.0%

B1. Including yourself, how many people are currently living in your household? Please specify the number of people.

	Smallest	Largest	Average
	household	household	household
Adult(s) (18 years of age or older; this may include roommates)	1	2	1.60



B2. In a typical week (i.e., 7 days), what is the <u>average</u> TOTAL number of showers taken by ALL the various people in your household?

	Low	High	Average
Adult(s) (18 years of age or older)			
showering at home	1	17	6.30
showering elsewhere	0	3	0.30

Note: None of the participants in this group had adolescents or children living in the household.

B3. Including yourself, what is the <u>usual</u> time of day that people in your household take showers **at home**?

	Count	Percentage
Adult(s) (18 years of age or older)		
In the morning	5	50.0%
In the evening	1	10.0%
It varies too much to say	4	40.0%

B4. Thinking now about your household as a whole*, and compared to other households like yours (i.e., with the same number of people), do you think the total showering time of everyone in your house is ...?

	Count	Percentage
well above average	0	0.0%
slightly above average	0	0.0%
about average	4	66.7%
slightly below average	0	0.0%
well below average	2	33.3%
Couldn't say / no idea	0	0.0%
Total	6	100.0%

*Note: If the participant was living alone, this question was skipped.



C1. In a typical week (i.e., 7 days), how many times do you shower at home:

	Low	High	Average
without washing your hair (in the shower)	0	4	1.10
including washing your hair (in the shower)	1	10	3.90
without shaving (in the shower)	0	10	4.30
including shaving (in the shower)	0	9	0.90
without brushing your teeth (in the shower)	0	10	4.60
including brushing your teeth (in the shower)	0	0	0.00

C2. In a typical week (i.e., 7 days), how many times do you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other)?

	Low	High	Average
Number of times showering somewhere else	0	3	0.30

C3. Do you turn the shower on and run it before actually using it?

	Count	Percentage
Yes (see below for more information)	6	60.0%
No	4	40.0%
Total	10	100.0%

	Low	High	Average
Number of minutes shower runs before being used	1	3	1.33

Note: The smallest increment that the online questionnaire would accept was one minute.

C4. Do you practise the "turn on/turn off" method of showering?

	Count	Percentage
Yes	1	10.0%
No	9	90.0%
Total	10	100.0%



 ${\sf C5.}\,$ How would you describe the amount of time you typically spend in the shower at home?

	Count	Percentage
(a) showering without washing your hair		
I'm in and out	0	0.0%
I shower quite quickly	2	50.0%
I spend a reasonable amount of time in the shower	2	50.0%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%
(b) showering <i>including</i> washing your hair		
I'm in and out	0	0.0%
I shower quite quickly	3	30.0%
I spend a reasonable amount of time in the shower	5	50.0%
I spend quite a long time in the shower	2	20.0%
I spend a long time in the shower	0	0.0%
(c) showering <i>without</i> shaving		
I'm in and out	1	11.1%
I shower quite quickly	6	66.7%
I spend a reasonable amount of time in the shower	2	22.2%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%
(d) showering <i>including</i> shaving		
I'm in and out	0	0.0%
I shower quite quickly	0	0.0%
I spend a reasonable amount of time in the shower	2	66.7%
I spend quite a long time in the shower	1	33.3%
I spend a long time in the shower	0	0.0%
(e) showering without brushing your teeth in the show	wer	
I'm in and out	1	11.1%
I shower quite quickly	4	44.4%
I spend a reasonable amount of time in the shower	4	44.4%
I spend quite a long time in the shower	0	0.0%
I spend a long time in the shower	0	0.0%



(f) showering including brushing your teeth in the shower			
I'm in and out	0	0.0%	
I shower quite quickly	0	0.0%	
I spend a reasonable amount of time in the shower	0	0.0%	
I spend quite a long time in the shower	0	0.0%	
I spend a long time in the shower	0	0.0%	

${\sf C6.}\,$ How many minutes would you say you spend on average in the shower?

	Count	Percentage
(a) showering without washing your hair		
less than 5 minutes	0	0.0%
5 to 7 minutes	3	75.0%
8 to 10 minutes	0	0.0%
11 to 15 minutes	1	25.0%
more than 15 minutes	0	0.0%
(b) showering including washing your hair		
less than 5 minutes	2	20.0%
5 to 7 minutes	3	30.0%
8 to 10 minutes	2	20.0%
11 to 15 minutes	2	20.0%
more than 15 minutes	1	10.0%
(c) showering without shaving		
less than 5 minutes	2	22.2%
5 to 7 minutes	6	66.7%
8 to 10 minutes	0	0.0%
11 to 15 minutes	1	11.1%
more than 15 minutes	0	0.0%
(d) showering <i>including</i> shaving	•	
less than 5 minutes	0	0.0%
5 to 7 minutes	2	66.7%
8 to 10 minutes	0	0.0%
11 to 15 minutes	1	33.3%
more than 15 minutes	0	0.0%



(e) showering without brushing your teeth in the shower				
less than 5 minutes	2	22.2%		
5 to 7 minutes	6	66.7%		
8 to 10 minutes	0	0.0%		
11 to 15 minutes	1	11.1%		
more than 15 minutes	0	0.0%		
(f) showering including brushing your teeth in the shower				
less than 5 minutes	0	0.0%		
5 to 7 minutes	0	0.0%		
8 to 10 minutes	0	0.0%		
11 to 15 minutes	0	0.0%		
more than 15 minutes	0	0.0%		

${\sf C7.}\,\,$ Do you think the time <u>you personally</u> spend in the shower is ...?

	Count	Percentage
well above average	0	0.0%
slightly above average	0	0.0%
about average	4	40.0%
slightly below average	2	20.0%
well below average	0	0.0%
Couldn't say / no idea	4	40.0%
Total	10	100.0%

C8. Thinking about when you shower <u>somewhere else</u> (e.g., at a gym/fitness facility, the office/work, other), which of the following statements best describes the length of your shower?

	Count	Percentage
My showers are always the same length whether I shower at home or elsewhere.	1	100.0%
My showers are generally shorter when I shower elsewhere.	0	0.0%
My showers are generally <u>slightly longer</u> when I shower elsewhere.	0	0.0%
My showers are generally <u>much longer</u> when I shower elsewhere.	0	0.0%
Couldn't say / no idea	0	0.0%
Total	1	100.0%



C9. Are your showering habits different on weekends?

	Count	Percentage
No	9	90.0%
Yes (see below for details)	1	10.0%
Total	10	100.0%

How showers are different on weekends:

• I'm embarrassed to say, I'm a slob on the weekends.



APPENDIX G: DATA FROM FOCUS GROUP ACTIVITIES



ACTIVITY 1

Group 1: Mixed gender (October 29 – 7:45 pm)

18 to 24-year-olds, single, living at home with parent(s)/other family members, or living with others (not family members), mix of working and not working

For me a shower is . . .

- . . . a time I use to bathe myself.
- . . . wet.
- . . . a part of waking up.
- ... a way to clean and relax.
- . . . enjoyable and annoying.
- ... a place to get clean and fresh.
- . . . a time to wash away the sweat from running and working out.
- ... a short activity to clean yourself.
- ... a time to relax and stay clean.
- ... comforting, relaxing, clean-feeling.

Group 2: Mixed gender (October 28 – 7:45 pm)

18 to 24-year-olds, single, most living alone, mix of working and not working

For me a shower is . . .

- . . . a place to wash away the day and get ready for bed.
- . . . relaxing.
- . . . a refresher and cleanser.
- . . . my time to clean up and get ready for the day.
- . . . my morning wake-up call.
- ... a method of cleaning/washing.
- . . . relaxing, because my day of work is done.
- . . . relaxing, hot.

Group 3: Males only (October 27 – 5:30 pm)

18 to 24-year-olds, single, living at home with parent(s) other family members, living with others (not family members), or living alone, mix of working and not working

For me a shower is . . .

- . . . relaxing, cleansing, removing bacteria, comforting, calming, refreshing.
- . . . cleaning, getting ready, washing.
- . . . a way to get clean.
- . . . a quick five minutes of my morning spent washing off dirt and B.O.
- ... a chance to get clean and to clear my head.
- . . . a chore that makes you smell better.
- . . . hygienic, cleansing of the body after a long time of work/strenuous activity.
- . . . an essential part of my hygienic routine.
- . . . a daily start to the day or a way to wind down after a long day.



Group 4: Females only (October 28 – 5:30 pm)

18 to 24-year-olds, single, living at home with parent(s), living with others (not family members), or living alone, mix of working and not working

For me a shower is . . .

- ... to clean up after your day.
- ... quick. You're in and out fast.
- . . . a necessary need to be clean and presentable, but also a relaxing thing at the end of a long day.
- . . . a way to maintain good hygiene, relaxing too.
- ... a way of cleaning myself.
- . . . relaxing and necessary.
- . . . the start of my day and my moment to plan my day.
- . . . a way to get clean.
- . . . a time to get clean and relax.

Group 5: Mixed gender (October 27 – 7:45 pm)

25 to 34-year-olds

For me a shower is . . .

- . . . a way to get clean before a long day, or clean up afterwards.
- . . . how I start my day. Helps me wake up and feel alert, clean, and ready.
- . . . being clean at the end of the day.
- . . . a necessity once a day to get clean.
- . . . a way to get clean.
- . . . something I have to do every day to feel right.
- . . . a way to get clean and relax.
- ... a time to clean myself and unwind.
- ... getting cleaned up for the day guickly.

Group 6: Mixed gender (October 23 – 6:00 pm)

35 to 54-year-olds (preferably those with children at home, if possible teenagers) MAXIMUM OF 2 WITHOUT CHILDREN

For me a shower is . . .

- . . . an enjoyment, opportunity to think, peaceful, warm and comforting.
- . . . relaxing.
- ... relaxing, invigorating, lush, clean, fresh.
- ... cleansing, relaxing, awakening, necessary!
- . . . a time alone. With three kids, I can't even hear them when I'm in the shower.
- . . . my favourite part of the day.
- . . . a quick get-in, get-out. Not for relaxing.
- ... a daily routine yet still a treat.
- . . . relaxation or to wake up.



Group 7: Mixed gender (October 29 – 5:30 pm)

55 years of age or older

For me a shower is . . .

- . . . a daily necessity for cleansing the body!
- ... refreshing and time for my weekly shampoo.
- . . . warmth on a cold day or relaxation after work.
- ... very relaxing.
- ... refreshing compared to baths.
- . . . an enjoyable way to get clean and occasionally a luxury.
- . . . an enjoyable experience. Cleanliness is next to godliness.
- . . . necessary to stay clean.
- ... a quick and enjoyable way to clean up.

ACTIVITY 2

Group 1:

What needs to be accomplished during shower

- Washing my hair
- If I am washing my hair
- What needs doing
- Do I need to wash my hair?

- 3 Do I need to shave?
- Washing my hair
- Shaving
- The routine that needs to be done (shaving, hair care, etc.)

- How much I have to do in the shower
- The products I use

Cleanliness

- Have I gotten sweaty today?
- Clean up for the day and just plan out the day
- **3** Smell good for the ladies

- How dirty I am
- How I smell



Mood or Stress Therapy

❷ How tired/awake I am

• How tired I am and if I'm feeling lazy or not

3 If I feel like luxuriating

• How I feel before

How relaxed I feel

Time constraints

3 If I'm on the way to something

Time constraints

• What I'm doing after

What time of day it

③ Timeliness − if I'm in a rush, etc.

Temperature/Hot Water Availability

2 The temperature in my house

● Temperature of the water (less hot water means a cold shower = less time in the shower)

Unique considerations

• My shower is shorter when I plan ahead what I'm going to do in there

2 Attempting to not waste water

Plan out your day



Group 2:

Time constraints

• Time frame

• What time I need to leave my house in the morning

• How much time I have

How much time I have to get ready

Time of day

② When I woke up that morning

• What time of night it is

Day of week

What needs to be accomplished during shower

② If I'm washing my hair

• What I have to do – wash my hair, shave, etc.

3 If I shampoo and condition

• Have to wash my hair

• Really hot after the gym

• If I'm shaving my legs

Activities

Mood or Stress Therapy

3 Especially tired in the morning

• Had a long/bad day

Before bed

I'm finished work

Cleanliness

6 If I've already showered that day

How dirty I am

Unique considerations

Water conservation

Really cold in the morning

Muscle tension



Group 3:

Time constraints

time? – are there • Time restraints

● Time – do I have others using the hot water?

Time

3 Time available

Time

Rushed

What you're doing in the day

Cleanliness

● Getting clean – no bacteria, no body odour

How clean you are

• How dirty am I?

When was the last time I showered?

• How dirty I feel I am

State of personal hygiene

What needs to be accomplished during shower

Washing hair

Shave in the shower

Cleaning body with soap

❷ Getting clean – no dirt

Mood or Stress Therapy

2 Time to relax

3 Do I need one mentally?

6 Energy level

Relaxation

Medical reasons

Muscle soreness

 How I'm feeling ill



Group 4:

What needs to be accomplished during shower

- Whether or not I'm shaving
- Washing hair
- Whether or not I wash my hair
- ② If I need to shave/exfoliate

- What I'm doing afterward and how long I have until then
- **3** If I need to wash my hair or shave
- Boyfriend am I going to see him?
- ❷ If I'm shaving or not

- If I am washing my hair
- Whether or not I shave everything
- 2 Where I am going
- Shaving

- Hair needing to be washed
- Where I am going that day
- If I need to wash my hair or not

Time constraints

- How much homework needs to be done
- If I need to be somewhere at a certain time
- 2 If I'm getting ready to go somewhere
- ② If I'm in a rush to be somewhere

- What time of day it is
- What I'm doing afterward and how long I have until then
- Whether it's at night or in the morning
- Time of day

- **3** Roommates wanting to shower
- Whether or not somebody else is waiting for the shower

Unique considerations

- I like to accomplish a lot in my day, so the quicker the shower, the more time I have to accomplish things
- Bath products used



Group 5:

What needs to be accomplished during shower

• Do I have to wash my hair/shave my legs?

• Do I need to shave?

• If I have to wash my hair

• How much grooming I need to do

② If I have to shave my legs

❸ Temperature (body temperature – needing to cool down after the gym)

• If I need to shampoo or not

Time constraints

• How much time I have before work – may relax a little longer

② If I'm pressed for time

Available time

When I start work

3 Time management

② Am I running late for work?

• Time constraints or obligations

Mood or Stress Therapy

• How stressful my day was

O Stress

Relaxation

Mood

Cleanliness

Cleanliness

• How dirty I am/how dirty I feel

• How dirty I feel I am

Wakefulness

❷ How tired I am (really tired = shorter shower) • Wakefulness

Unique considerations

Whether or not I'm cold; sometimes I don't always get warm water

Ocst of hot water

2 Do I feel sick?



Group 6:

Water availability

• If there is warm water

Whether someone else needs to shower (hot water supply)

3 Temperature [of water]

2 Time of day for water

② If others have showered before me – how much hot water is left

2 Time of day for water (influences water availability)

3 How much hot water is left

If my husband wants to shower or have a bath ☺

2 Who else needs to get in the shower

• How many need to shower after me

Time constraints

• How much time do I have

My schedule

• How much time do I have before I have to be somewhere

2 Time

② How much time I have before moving on to my next task

Time available

• If someone else has to use the bathroom

② Who else needs to get in the shower (D)

What needs to be accomplished during shower

• How long until clean

Cleansing

Shaving

② What do I need to accomplish while I'm in there

3 Whether or not to shave

② If I need to shave, wash my hair and other things in the shower

Hair-washing

Conservation concerns

• Water use (conservation)

Conservation

Mood or Stress Therapy

• How worn out or cold I am going into the shower

• How water conscious am I being (environmentally friendly)



Group 7:

What needs to be accomplished during shower

2 Time of day (if I've just been to the gym)

② Shower and washing hair (25-30 minutes – 15-20 minutes water running)

② Am I washing my hair or have just cut my beard/hair

Washing hair

Sespecially hot day and washing hair (35 minutes)

Washing my hair

• Washing my body and massaging my legs, etc. ● Straight forward shower of body (20 minutes – 10 minutes water running)

Time constraints

• Time available

• Depending on if I have an early morning appointment, shower will be shorter

3 Shower busy -- at gym

Next activity

Amount of time available

● Time – am I in a hurry to finish?

Temperature/water availability

Water temperature

2 Is there hot water?

3 Probably room temperature

3 If I'm cold and need to warm up

Cleanliness

• How sweaty I am

• How dirty I am

• When I feel like all is washed and rinsed

Medical reasons

• Washing my body and massaging my legs, etc. (D)

What my hip condition feels like

3 Am I trying to alleviate a headache or muscle tension

Unique considerations

❸ Am I showering alone? [☺]

Mood



ACTIVITY 4

Group 1	Would consider changing	Might consider changing	Would NOT consider changing	Not applicable (already do this)
Take fewer showers overall	2	1	7	0
Take shorter showers	5	1	2	2
Start practising the turn on/turn off method of showering	2	5	2	1
Avoid running the shower before actually using it	4	2	0	4

Group 2	Would consider changing	Might consider changing	Would NOT consider changing	Not applicable (already do this)
Take fewer showers overall	3	0	3	2
Take shorter showers	2	4	0	2
Start practising the turn on/turn off method of showering	1	2	5	0
Avoid running the shower before actually using it	2	1	2	3

Group 3	Would consider changing	Might consider changing	Would NOT consider changing	Not applicable (already do this)
Take fewer showers overall	3	1	4	1
Take shorter showers	2	0	1	6
Start practising the turn on/turn off method of showering	2	4	2	1
Avoid running the shower before actually using it	1	1	2	5

Group 4	Would consider changing	Might consider changing	Would NOT consider changing	Not applicable (already do this)
Take fewer showers overall	0	4	4	1
Take shorter showers	1	5	0	3
Start practising the turn on/turn off method of showering	2	2	2	3
Avoid running the shower before actually using it	3	1	3	2



Group 5	Would consider changing	Might consider changing	Would NOT consider changing	Not applicable (already do this)
Take fewer showers overall	0	1	6	2
Take shorter showers	5	2	0	2
Start practising the turn on/turn off method of showering	2	2	3	2
Avoid running the shower before actually using it	2	2	0	5

Group 6	Would consider changing	Might consider changing	Would NOT consider changing	Not applicable (already do this)
Take fewer showers overall	0	2	5	2
Take shorter showers	4	0	2	3
Start practising the turn on/turn off method of showering	2	4	3	0
Avoid running the shower before actually using it	1	5	1	2

Group 7	Would consider changing	Might consider changing	Would NOT consider changing	Not applicable (already do this)
Take fewer showers overall	2	3	2	2
Take shorter showers	4	1	1	3
Start practising the turn on/turn off method of showering	1	2	4	2
Avoid running the shower before actually using it	2	2	0	5



ACTIVITY 5

GROUP 1	Number of votes received	Likelihood of a change in showering behaviour if used/installed (out of 10)
Gadget 1 (CRD timer)	4 votes	9.00
Gadget 2 (water pebble)	2 votes	8.50
Gadget 3 (shower volume control)	1 vote	3.00
Gadget 4 (shower manager)	2 votes	8.00
Gadget 5 (shower start)	none	N/A

Written comments of participants:

- I would not put in a shower gadget because I do not live alone and I do not feel trying to influence what other humans do in their private time is my place or a good activity to pursue.
- For the rest of my family #3 would be best.

GROUP 2	Number of votes received	Likelihood of a change in showering behaviour if used/installed
Gadget 1 (CRD timer)	2 votes	8.00
Gadget 2 (water pebble)	3 votes	5.33
Gadget 3 (shower volume control)	none	N/A
Gadget 4 (shower manager)	2 votes	5.50
Gadget 5 (shower start)	none	N/A

GROUP 3	Number of votes received	Likelihood of a change in showering behaviour if used/installed
Gadget 1 (CRD timer)	5 votes	7.40
Gadget 2 (water pebble)	1 vote	2.00
Gadget 3 (shower volume control)	1 vote	9.00
Gadget 4 (shower manager)	1 vote	9.00
Gadget 5 (shower start)	1 vote	7.00

- Make it easier to turn on/off.
- Wouldn't actually shorten my shower. It would be used for water conservation.



GROUP 4	Number of votes received	Likelihood of a change in showering behaviour if used/installed
Gadget 1 (CRD timer)	7 votes	6.57
Gadget 2 (water pebble)	1 vote	5.00
Gadget 3 (shower volume control)	1 vote	7.00
Gadget 4 (shower manager)	none	N/A
Gadget 5 (shower start)	none	N/A

GROUP 5	Number of votes received	Likelihood of a change in showering behaviour if used/installed
Gadget 1 (CRD timer)	7 votes	8.29
Gadget 2 (water pebble)	none	N/A
Gadget 3 (shower volume control)	1 vote	4.00
Gadget 4 (shower manager)	1 vote	10.00
Gadget 5 (shower start)	none	N/A

GROUP 6	Number of votes received	Likelihood of a change in showering behaviour if used/installed
Gadget 1 (CRD timer)	5 votes	6.40
Gadget 2 (water pebble)	1 vote	10.00
Gadget 3 (shower volume control)	1 vote	8.00
Gadget 4 (shower manager)	2 votes	9.00
Gadget 5 (shower start)	none	N/A

- For the rest of my family #4 would be best.
- For the rest of my family #3 would be best, and I'd give it a score of 7/10 for likelihood of changing showering behaviour.
- For the rest of my family #4 would be best.
- For the rest of my family #2 would be best.



GROUP 7	Number of votes received	Likelihood of a change in showering behaviour if used/installed
Gadget 1 (CRD timer)	6 votes	6.33
Gadget 2 (water pebble)	1 vote	8.00
Gadget 3 (shower volume control)	2 votes	9.50
Gadget 4 (shower manager)	none	N/A
Gadget 5 (shower start)	none	N/A

- Stopwatch might work; not interested in others. Shorter showers = less water.



ACTIVITY 6

Message 1A (Quicker, cooler showers are better for the health of your hair and skin.)

Have you heard this information before?	Yes	No
Group 1	30.0%	70.0%
Group 2	37.5%	62.5%
Group 3	33.3%	66.7%
Group 4	77.8%	22.2%
Group 5	77.8%	22.2%
Group 6	66.7%	33.3%
Group 7	50.0%	50.0%

How believable do you find the information?	Very	Fairly	Not at all
Group 1	30.0%	70.0%	0.0%
Group 2	37.5%	62.5%	0.0%
Group 3	22.2%	55.6%	22.2%
Group 4	55.6%	33.3%	11.1%
Group 5	22.2%	77.8%	0.0%
Group 6	11.1%	55.6%	33.3%
Group 7	25.0%	37.5%	37.5%

How likely is this information to change what you currently do in terms of showering?		
Group 1 (score out of a maximum of 10=extremely likely)	5.10	
Group 2	5.25	
Group 3	4.56	
Group 4	4.67	
Group 5	3.78	
Group 6	3.56	
Group 7	2.38	
Total (all groups averaged)	4.21	

- (Group 1) I'm a pansy about cold.
- (Group 2) Cooler not shorter are better for your skin; not speedy, but definitely cooler.
- (Group 2) It would be interesting to try.



Message 1B (Scientists have found that long, hot showers dehydrate your skin; so make it speedy and lukewarm for a youthful complexion.)

Have you heard this information before?	Yes	No
Group 1	60.0%	40.0%
Group 2	37.5%	62.5%
Group 3	44.4%	55.6%
Group 4	55.6%	44.4%
Group 5	66.7%	33.3%
Group 6	44.4%	55.6%
Group 7	25.0%	75.0%

How believable do you find the information?	Very	Fairly	Not at all
Group 1	70.0%	20.0%	10.0%
Group 2	50.0%	37.5%	12.5%
Group 3	11.1%	55.6%	33.3%
Group 4	11.1%	77.8%	11.1%
Group 5	44.4%	44.4%	11.1%
Group 6	11.1%	66.7%	22.2%
Group 7	25.0%	37.5%	37.5%

How likely is this information to change what you currently do in terms of showering?		
Group 1 (score out of a maximum of 10=extremely likely)	6.10	
Group 2	4.38	
Group 3	4.22	
Group 4	3.63	
Group 5	4.89	
Group 6	3.67	
Group 7	2.75	
Total (all groups averaged)	4.30	

- (Group 1) Scientists...
- (Group 1) I'm a pansy about cold.
- (Group 1) I don't like the word "youthful."
- (Group 4) Judgemental, societal values.



Message 2A (The average person showers for 4 minutes. Do you? Take the challenge.)

Have you heard this information before?	Yes	No
Group 1	30.0%	70.0%
Group 2	25.0%	75.0%
Group 3	11.1%	88.9%
Group 4	11.1%	88.9%
Group 5	33.3%	66.7%
Group 6	22.2%	77.8%
Group 7	12.5%	87.5%

How believable do you find the information?	Very	Fairly	Not at all
Group 1	20.0%	40.0%	40.0%
Group 2	12.5%	25.0%	62.5%
Group 3	11.1%	33.3%	55.6%
Group 4	11.1%	11.1%	77.8%
Group 5	0.0%	33.3%	66.7%
Group 6	0.0%	33.3%	66.7%
Group 7	25.0%	37.5%	37.5%

How likely is this information to change what you currently do in terms of showering?		
Group 1 (score out of a maximum of 10=extremely likely)	5.80	
Group 2	3.50	
Group 3	4.00	
Group 4	3.67	
Group 5	4.00	
Group 6	4.44	
Group 7	1.88	
Total (all groups averaged)	3.97	

- (Group 1) Shorter.
- (Group 2) Cooler, not speedy.
- (Group 4) Judges.
- (Group 7) 4 mins.
- (Group 7) Already less than four minutes.



Message 2B (The average person showers for 4 minutes. Do you? Cutting the length of time in the shower helps to save water and energy. Take the challenge.)

Have you heard this information before?	Yes	No
Group 1	40.0%	60.0%
Group 2	50.0%	50.0%
Group 3	44.4%	55.6%
Group 4	22.2%	77.8%
Group 5	55.6%	44.4%
Group 6	33.3%	66.7%
Group 7	37.5%	62.5%

How believable do you find the information?	Very	Fairly	Not at all
Group 1	60.0%	30.0%	10.0%
Group 2	62.5%	25.0%	12.5%
Group 3	44.4%	22.2%	33.3%
Group 4	22.2%	55.6%	22.2%
Group 5	55.6%	0.0%	44.4%
Group 6	22.2%	44.4%	33.3%
Group 7	12.5%	62.5%	25.0%

How likely is this information to change what you currently do in terms of showering?		
Group 1 (score out of a maximum of 10=extremely likely)	6.10	
Group 2	4.25	
Group 3	4.44	
Group 4	4.33	
Group 5	5.67	
Group 6	5.78	
Group 7	2.50	
Total (all groups averaged)	4.79	

- (Group 1) Extra info.
- (Group 1) The minimalism is better.
- (Group 1) Because I doubt the first statement about 4 minutes, I'm disinclined to take your challenge.
- (Group 1) Too long of a message.
- (Group 4) Common knowledge.
- (Group 7) B. best liked.
- (Group 7) As I have said, I think the amount of water discharged is just as critical or maybe more so.
- (Group 7) I already do.



Message 3 (A shorter shower means: more time in bed, time to have breakfast, avoid the travel rush, less hassle from family or roommates. What does it mean to you?)

Have you heard this information before?	Yes	No
Group 1	40.0%	60.0%
Group 2	62.5%	37.5%
Group 3	77.8%	22.2%
Group 4	55.6%	44.4%
Group 5	66.7%	33.3%
Group 6	33.3%	66.7%
Group 7	28.6%	71.4%

How believable do you find the information?	Very	Fairly	Not at all
Group 1	60.0%	30.0%	10.0%
Group 2	75.0%	25.0%	0.0%
Group 3	55.6%	33.3%	11.1%
Group 4	66.7%	22.2%	11.1%
Group 5	44.4%	55.6%	0.0%
Group 6	55.6%	33.3%	11.1%
Group 7	71.4%	14.3%	14.3%

How likely is this information to change what you currently do in terms of showering?		
Group 1 (score out of a maximum of 10=extremely likely)	4.80	
Group 2	6.13	
Group 3	3.56	
Group 4	4.89	
Group 5	3.78	
Group 6	4.11	
Group 7	2.25	
Total (all groups averaged)	4.23	

- (Group 1) Time-based.
- (Group 1) This info is common sense.
- (Group 1) None of your business, but a cool idea.
- (Group 2) Don't have to rush everything else.
- (Group 3) Not applicable evening showers.
- (Group 4) Confusing.
- (Group 7) Retired, no rush.
- (Group 7) Deducible.

- (Group 7) Already quick.
- (Group 7) Retired. Time of no essence.



Message 4A (By reducing your average shower time by two minutes you could save around 6,000 litres of water a year.)

Have you heard this information before?	Yes	No
Group 1	10.0%	90.0%
Group 2	12.5%	87.5%
Group 3	22.2%	77.8%
Group 4	11.1%	88.9%
Group 5	33.3%	66.7%
Group 6	33.3%	66.7%
Group 7	12.5%	87.5%

How believable do you find the information?	Very	Fairly	Not at all
Group 1	50.0%	50.0%	0.0%
Group 2	100.0%	0.0%	0.0%
Group 3	55.6%	44.4%	0.0%
Group 4	55.6%	33.3%	11.1%
Group 5	55.6%	44.4%	0.0%
Group 6	44.4%	55.6%	0.0%
Group 7	37.5%	37.5%	25.0%

How likely is this information to change what you currently do in terms of showering?		
Group 1 (score out of a maximum of 10=extremely likely)	7.10	
Group 2	7.00	
Group 3	5.89	
Group 4	7.56	
Group 5	5.67	
Group 6	6.44	
Group 7	3.38	
Total (all groups averaged)	6.19	

- (Group 1) Saving litres of water 6,000l.
- (Group 1) Big number confuses me.
- (Group 4) Need reference point, \$.
- (Group 7) Somewhere. 6,000 l a year.
- (Group 7) Shower fast as I can.



Message 4B (By reducing your average shower time by two minutes you could save around \$40 a year off your water/energy bills.)

Have you heard this information before?	Yes	No
Group 1	20.0%	80.0%
Group 2	37.5%	62.5%
Group 3	11.1%	88.9%
Group 4	22.2%	77.8%
Group 5	44.4%	55.6%
Group 6	22.2%	77.8%
Group 7	25.0%	75.0%

How believable do you find the information?	Very	Fairly	Not at all
Group 1	70.0%	30.0%	0.0%
Group 2	87.5%	12.5%	0.0%
Group 3	44.4%	55.6%	0.0%
Group 4	66.7%	22.2%	11.1%
Group 5	55.6%	44.4%	0.0%
Group 6	66.7%	33.3%	0.0%
Group 7	50.0%	37.5%	12.5%

How likely is this information to change what you currently do in terms of showering?		
Group 1 (score out of a maximum of 10=extremely likely)	7.20	
Group 2	4.63	
Group 3	5.22	
Group 4	5.89	
Group 5	4.56	
Group 6	7.11	
Group 7	2.75	
Total (all groups averaged)	5.42	

- (Group 1) Saving \$40.
- (Group 7) Somewhere.
- (Group 7) Not applicable to me. Strata pays whatever the amount is, but I will consider it. It does make sense.
- (Group 7) Can't reduce time in shower.
- (Group 7) Water part of rent package.