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Water Quality On-Reserve Quantitative Research

FINAL REPORT

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EXECUTIVE SUMMARY

Health Canada (HC), in collaboration with Indian and Northern Affairs Canada, assists First Nations (FN) in ensuring safe drinking water in their communities. Part of the challenge facing HC is the role of perception of the members of First Nations communities with regards to the safety of their drinking water. Water treatment, monitoring and testing are ineffective if people don't believe that their water is safe to drink and are using alternative sources, such as bottled water, instead of that provided by the community. The purpose of this research is to gain insight into the views of the First Nations On-Reserve population on the quality of the water to which they have access on reserves. This will help to assess the effect of current on-reserve water quality programs and allow us to compare perceptions of water quality to those living in other small communities. The major objective is to find out how people feel about the safety of their water, and whether there has been a change in this perception since the implementation of the First Nations Water and Wastewater Action Plan (FNWWAP) in order to measure how effective programs are (whether through increased communication, education or actual improvement of facilities, treatment and monitoring) in increasing people's confidence in and use of the water provided by the community.

The study involved the collection of a brief (ten minute) interview with roughly 700 residents of First Nations communities and 700 residents of other small communities (not on a reserve) with populations of less than 5,000, which are not bordering a large urban area. Common questions were used to assess perceptions of water quality, safety, changes over time and uses of filtered, unfiltered and bottled water, as well as, incidence and frequency of Boil Water Advisories, and in the case of First Nations residents, recall of Boil Water Advisories on the radio. Results are national in scope and were collected by telephone in March and April of 2009.

MAIN FINDINGS

Results highlight the dramatic difference in confidence levels between First Nations and other residents when it comes to the quality of their water. First Nations residents are less positive about the quality of the water they receive than are residents of other small communities. Fewer than half of First Nations residents rated the quality of their drinking water as good, which is considerably lower than the 63 per cent of residents of other small communities (i.e., the general public) who provided the same positive rating about their own water. In fact, more than one-quarter of First Nations residents consider their drinking water quality to be poor, whereas smaller proportions of residents of other small communities provided the same type of negative rating of their water. Comparison to results in 2007 suggests, however, that perhaps the perceptions around water quality have improved marginally for First Nations in the worst cases, given that fewer today say that the quality is poor, compared with the 33 per cent who provided this rating of the water quality in 2007.

In terms of safety, results were marginally more positive; whereby three in ten First Nations residents view their tap water supply as very safe, and nearly four in ten think it somewhat safe. Nonetheless, three in ten

feel that their water is either somewhat or very unsafe. Considerably higher proportions of residents of other small communities perceive their tap water supply to be safe (89 per cent saying somewhat or very safe, compared with 69 per cent of residents on reserves). Again, results suggest a slight improvement since 2007 for First Nations on-reserve, when 62 per cent said that their water was somewhat or very safe and 36 per cent said that it was unsafe (contrasted against 29 per cent today).

Among First Nations residents living on-reserve, the region they are located in, their proximity to other communities, and the population size, along with whether they have had any Boil Water Advisories (BWA's) (currently or in the past) each have linkages to perceptions of the quality and safety of water on their reserve. This is also true of the number of individuals in the home which contribute to a sense of vulnerability, as they tend to increase concerns about water quality and safety.

The presence of pollutants and/or mineral content was noted by one-quarter of First Nations respondents as the reason they think their water supply is unsafe. A comparison against the responses of residents of other small communities suggests that First Nations residents are more likely to blame their unsafe water on pollution and the qualities of the water that they can feel/perceive themselves (i.e., pollution, chemicals, taste). Other members of the general public are more apt to suspect the treatment facilities, the water source, and to point to BWA's and general discussion (e.g., in the media) about poor water quality in small communities.

More than one-third of First Nations residents believe that their water quality has remained the same over the past five years. Four in ten believe that the water is now safer than it was, although, just under one in five judge the water to be less safe to drink than it was five years ago. The general public, on the other hand, are slightly less apt to say there had been a deterioration in their water quality over the last five years. Results for First Nations communities show a marginal improvement over 2007 when 23 per cent judged their water to be very or somewhat unsafe (compared with the current 18 per cent).

In terms of what would make First Nations on reserve feel safer about their tap water quality, water filtration/treatment and/or utilities infrastructure topped the list, according to one in four. This was followed by more frequent water quality testing. Results were similar for residents of other small communities.

When prompted specifically about the types of information that would help to reassure them about their tap water quality, roughly three-quarters of First Nations residents living on-reserve each said that more information about water quality testing procedures/frequency of testing or the acceptable levels in tap water, or information about the quality of tap water on their reserve, would make them feel safer. Seven in ten also wish to know more about what to do in case of a Drinking Water Advisory (DWA), as well as being provided with a telephone number or website they could access to check on the current quality of their reserves tap water. Compared to residents of other small communities, there is a higher demand among First Nations reserve residents for more information about quality of tap water on their reserve, water quality testing procedures/frequency of testing, what to do in the case of a DWA and a telephone number or website that would allow them to check current quality of tap water on their reserve.

First Nations residents are generally less apt to use their tap water across all applications compared with residents of other small communities. They are, for example, most apt to use their tap water for brushing teeth, and washing food, followed by its use in cooking, and, to a lesser extent, coffee or tea preparation. It is less frequently used for drinking, or for food preparation that involves mixing ingredients with water. And, these are less frequently used applications on-reserve, relative to the usage in other small communities (in the general public). In most cases, there is a slightly increase of a few percentage points in use of tap water for individual applications on-reserve since 2007, with the most notable increase occurring in drinking.

Only one in four residents on reserves use purely unfiltered water for drinking. Usage of unfiltered water increases to roughly half of residents in its application for food and beverage preparation, such as water for use as an ingredient in food preparation or for coffee or tea preparation. It increases again for cooking, washing food, and brushing teeth. Residents on reserves are more likely than residents of other small communities to use a combination of bottled and filtered water for all applications explored in the survey.

One in five First Nations people living on-reserve said that they use bottled instead of tap water because it is supposed to be better for you, because they don't trust their tap water, because they prefer the taste or smell of bottled water, or because bottled water is more convenient to drink. Significantly more residents of other small communities cited the latter two reasons (i.e., taste and convenience).

Four in ten First Nations people living on-reserve indicate that they have been or are currently under a Drinking or Boil Water Advisory. This is compared with one in four residents in other small communities. In fact, one in ten residents on reserves reported a boil water advisory at the time or within a few weeks of the survey collection (in April).

Nearly half of First Nations people on-reserve who reported a DWA within the past 12 months also reported that they recall hearing a public service announcement on the radio, most of them saying that they found the announcement useful. Fewer than one in five have seen a door hanger addressing DWA's on their reserve, with about eight in ten of them saying that they found the information on the door hanger be useful. Awareness of a poster discussing DWA's is mixed, with just under half indicating that they have seen the poster. Of those who have seen the poster, most found it to be useful.

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SOMMAIRE

Santé Canada (SC), en collaboration avec les Affaires indiennes et du Nord Canada, aide les Premières nations à s'assurer de la salubrité de l'eau potable de leurs communautés. Le rôle des perceptions des membres des communautés des Premières nations en ce qui concerne la salubrité de leur eau potable représente l'un des défis auxquels SC fait face. L'épuration, la surveillance et l'analyse de l'eau s'avèrent inefficaces si les gens ne croient pas que leur eau est bonne à boire et s'ils utilisent d'autres sources, comme de l'eau embouteillée, au lieu de celle fournie dans leur communauté. Le but de la présente recherche est de mieux comprendre les opinions des résidents des Premières nations vivant dans des réserves en ce qui concerne la qualité de l'eau à laquelle ils ont accès dans leur propre réserve. Cela aidera à évaluer l'effet des programmes actuels sur la qualité de l'eau dans les réserves et nous permettra de comparer leurs perceptions sur la qualité de l'eau avec celles d'autres petites communautés. Le principal objectif de la présente étude consiste à savoir comment les gens se sentent par rapport à la salubrité de leur eau et à découvrir s'il y a eu un changement dans ces perceptions depuis la mise en œuvre du Plan d'action pour l'approvisionnement en eau potable et le traitement des eaux usées des Premières nations (Plan d'action pour l'eau) de manière à mesurer l'efficacité des programmes (que ce soit par le biais d'une communication accrue, de formations ou d'une amélioration réelle des installations, de l'épuration et de la surveillance) et à augmenter la confiance des gens à l'égard de l'eau et de l'utilisation de l'eau fournie aux communautés.

L'étude suppose la collecte de renseignements par le biais d'un court entretien (de dix minutes) avec environ 700 résidents de communautés des Premières nations et de 700 résidents d'autres petites communautés (à l'extérieur des réserves) de moins de 5000 habitants qui ne sont pas situées à proximité de grands centres urbains. Des questions communes ont été utilisées pour évaluer les perceptions concernant la qualité et la salubrité de l'eau, les changements de l'eau au fil du temps, l'utilisation d'eau embouteillée, d'eau filtrée et d'eau non filtrée, ainsi que l'incidence et la fréquence des Avis d'ébullition de l'eau et, dans le cas des résidents des Premières nations, des rappels radiophoniques des Avis d'ébullition de l'eau. Les résultats, de portée nationale, ont été recueillis par téléphone en mars et en avril 2009.

PRINCIPAUX RÉSULTATS

Les résultats mettent en évidence la différence remarquable entre les niveaux de confiance des membres des Premières nations et ceux d'autres résidents lorsqu'il est question de la qualité de leur eau. Les résidents des Premières nations sont moins positifs que les résidents d'autres petites communautés à l'égard de la qualité de l'eau à laquelle ils ont accès. Un peu moins de la moitié des résidents des Premières nations considère la qualité de leur eau potable comme bonne, ce qui est considérablement plus bas que le 63 p. cent des résidents d'autres petites communautés (c.-à-d. le grand public) qui ont donné cette même note positive. En fait, plus du quart des résidents des Premières nations considère la qualité de leur eau potable comme faible, alors que de plus petites proportions de résidents d'autres petites communautés ont attribué la même évaluation négative à leur eau. Toutefois, une comparaison avec les résultats de 2007

donne à penser que les perceptions entourant la qualité de l'eau se sont peut-être légèrement améliorées pour les Premières nations dans les pires cas puisqu'un moins grand nombre de ces résidents affirment aujourd'hui que la qualité de l'eau est faible, comparativement aux 33 p. cent qui avaient ainsi évalué la qualité de leur eau en 2007.

En ce qui concerne la salubrité de l'eau, les résultats étaient légèrement plus positifs : trois résidents des Premières nations sur dix considèrent leur eau de robinet comme très salubre et près de quatre sur dix croient qu'elle est plutôt salubre. Néanmoins, trois répondants sur dix sont d'avis que leur eau est plutôt insalubre ou très insalubre. Des proportions considérablement plus élevées de résidents de petites communautés considèrent leur eau de robinet comme salubre (89 p. cent affirment qu'elle est plutôt salubre ou très salubre, comparativement à 69 p. cent des résidents vivant dans des réserves). Encore une fois, les résultats suggèrent une légère amélioration par rapport à 2007 pour les résidents des Premières nations vivant dans des réserves; en effet, 62 p. cent affirmaient alors que leur eau était plutôt salubre ou très salubre et 36 p. cent estimant qu'elle était insalubre (comparativement à 29 p. cent aujourd'hui).

Parmi les résidents des Premières nations vivant dans des réserves, la région dans laquelle ils se trouvent, leur proximité à d'autres communautés, la taille de leur population ainsi que le fait qu'ils aient reçu ou non des Avis d'ébullition de l'eau (maintenant ou par le passé) ont tous des liens avec les perceptions qu'ils ont de la qualité et de la salubrité de l'eau dans leur réserve. Cela est également vrai pour le nombre d'individus par maison, ce fait contribuant au sentiment de vulnérabilité, ce qui a tendance à faire hausser les préoccupations concernant la qualité et la salubrité de l'eau.

La présence de polluants et/ou de minéraux a été notée par le quart des répondants des Premières nations comme la raison pour laquelle ils estiment que leur eau est insalubre. Une comparaison avec les réponses de résidents d'autres petites communautés donne à penser que les résidents des Premières nations sont plus susceptibles d'attribuer à l'insalubrité et à la qualité de leur eau les aspects qu'ils peuvent eux-mêmes sentir/percevoir (c.-à-d. pollution, produits chimiques, goût). D'autres membres du grand public sont plus susceptibles de suspecter les installations d'épuration ainsi que la source de l'eau et de nommer les Avis d'ébullition de l'eau et les études générales (p. ex., dans les médias) pour faire remarquer la faible qualité de l'eau dans les petites communautés.

Plus du tiers des résidents des Premières nations estime que la qualité de leur eau est demeurée la même au cours des cinq dernières années. Quatre répondants sur dix sont d'avis que l'eau est maintenant plus salubre qu'elle ne l'était et un peu moins d'un répondant sur cinq croit qu'il est moins sécuritaire de boire l'eau maintenant qu'il y a cinq ans. Le grand public, par contre, est légèrement moins susceptible d'affirmer qu'il y a eu une détérioration de la qualité de leur eau au cours des cinq dernières années. Les résultats des communautés des Premières nations démontrent une légère amélioration par rapport à 2007 où 23 p. cent des répondants étaient d'avis que leur eau était plutôt insalubre ou très insalubre (comparativement à 18 p. cent à l'heure actuelle).

Pour ce qui est de ce qui aiderait les Premières nations vivant dans des réserves à se sentir plus en sécurité par rapport à la qualité de leur eau de robinet, selon un répondant sur quatre, la filtration et

l'épuration de l'eau et/ou l'infrastructure des installations apparaissent au haut de la liste, suivi par l'analyse plus fréquente de la qualité de l'eau. Les résultats étaient semblables pour les résidents d'autres petites communautés.

Lorsque nous les avons invités à préciser les types de renseignements qui aideraient à les rassurer quant à la qualité de leur eau de robinet, environ les trois quarts des résidents des Premières nations vivant dans des réserves ont évoqué l'information sur les procédures d'analyse de la qualité de l'eau/la fréquence de l'analyse, les niveaux acceptables dans l'eau de robinet ou la qualité de l'eau de robinet de leur réserve. Sept répondants sur dix ont également manifesté le désir d'en savoir plus sur ce qu'il faut faire lors d'un Avis d'ébullition de l'eau et d'avoir un numéro de téléphone où ils peuvent appeler ou un site Web qu'ils peuvent consulter pour vérifier la qualité actuelle de l'eau de robinet de leur réserve. Comparativement aux résidents d'autres petites communautés, les résidents des Premières nations vivant dans des réserves veulent davantage d'information sur la qualité de l'eau de robinet des réserves, les procédures d'analyse de la qualité de l'eau et la fréquence de l'analyse, la marche à suivre lors d'un Avis d'ébullition de l'eau et un numéro de téléphone où ils peuvent appeler ou d'un site Web qu'ils peuvent consulter pour vérifier la qualité actuelle de l'eau de robinet de leur réserve.

Les résidents des Premières nations sont généralement moins susceptibles que les résidents d'autres petites communautés d'utiliser leur eau de robinet pour toutes les applications mentionnées dans l'étude. Par exemple, ils sont plus susceptibles d'utiliser leur eau de robinet pour se brosser les dents et nettoyer de la nourriture, suivi par l'utilisation pour cuisiner et, d'une façon moins considérable, pour préparer du thé ou du café. L'eau est moins fréquemment utilisée pour être bue ou pour préparer de la nourriture lorsqu'il faut la mélanger à des ingrédients. Ces applications sont moins souvent utilisées dans les réserves que dans les petites communautés (par le grand public). Dans la plupart des cas, il y a une légère augmentation de quelques points de pourcentage dans l'utilisation de l'eau de robinet pour les applications dans les réserves depuis 2007, l'augmentation la plus notable étant le fait de boire l'eau.

Seul un résident des réserves sur quatre boit de l'eau pure non filtrée. L'utilisation d'eau non filtrée augmente à environ la moitié des résidents pour la préparation de nourriture/boissons et pour l'utilisation de l'eau comme ingrédient dans la préparation de nourriture, de thé ou de café. Elle augmente également lorsqu'il est question de cuisiner, de nettoyer des aliments et de se brosser les dents. Les résidents des réserves sont plus susceptibles que ceux d'autres petites communautés d'utiliser une combinaison d'eau filtrée et non filtrée pour toutes les applications abordées dans le sondage.

Seul un répondant sur cinq des résidents des Premières nations vivant dans une réserve affirme utiliser de l'eau embouteillée au lieu de l'eau du robinet parce qu'elle est censée être meilleure, parce qu'il ne se fie pas à l'eau de robinet, parce qu'il préfère le goût ou l'odeur de l'eau embouteillée ou parce que l'eau embouteillée est plus pratique à boire. Beaucoup plus de résidents d'autres petites communautés ont cité les deux dernières raisons évoquées (c.-à-d. le goût et l'aspect pratique).

Quatre répondants sur dix des résidents des Premières nations vivant dans une réserve indiquent qu'ils ont reçu un Avis d'ébullition de l'eau potable ou qu'un tel avis est actuellement en vigueur dans leur réserve,

comparativement à un résident sur quatre des autres petites communautés. En fait, un résident sur dix vivant dans une réserve déclarait avoir reçu un Avis d'ébullition de l'eau au moment de répondre au sondage (en avril) ou quelques semaines auparavant.

Près de la moitié des membres des Premières nations vivant dans des réserves qui ont fait mention d'un Avis d'ébullition de l'eau au cours des douze mois précédents ont également déclaré se rappeler avoir entendu un message d'intérêt public à la radio, la plupart d'entre eux affirmant trouver le message utile. Moins d'un répondant sur cinq a vu dans sa réserve un carton à la porte annonçant un Avis d'ébullition de l'eau. Environ huit de ces répondants sur dix affirment trouver utiles les renseignements se trouvant sur ces cartons. La sensibilisation entourant les affiches annonçant les Avis d'ébullition de l'eau était mitigée, un peu moins de la moitié des répondants indiquant avoir vu l'affiche. La plupart de ceux qui ont vu l'affiche la trouvaient utile.

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1. INTRODUCTION

1.1 CONTEXT AND RATIONALE

Health Canada (HC), in collaboration with Indian and Northern Affairs Canada, assists First Nations (FN) in ensuring safe drinking water in their communities. Health Canada works in partnership with First Nations communities to ensure drinking water quality monitoring programs are in place in communities, south of 60 degrees parallel, as per the Guidelines for Canadian Drinking Water Quality (GCDWQ). Environmental Health Officers (EHOs) employed by HC, review and interpret drinking water quality results for four types of GCDWQ: microbiological, chemical, physical and radiological parameters. Drinking water quality results are then disseminated by EHOs or Community-Based Drinking Water Quality Monitors (CBWMs) to FN communities and other appropriate stakeholders.

In communities where it is difficult or impossible to test drinking water samples for microbiological parameters on a regular basis and/or get microbiological water samples to a laboratory in a timely manner, HC helps FN communities establish community-based drinking water quality sampling and testing capabilities. The department facilitates water sampling and testing through the on-going support and training of CBWMs. Quality assurance and quality control are maintained by EHOs, employed by HC. If a community does not have a CBWM, with the community's permission, an EHO will sample and test drinking water quality for microbiological parameters.

EHOs are also responsible for recommending orally and in writing to the appropriate parties that a Boil Water Advisory (BWA) should be issued in the event of unsatisfactory results in water distribution systems with five or more connections. It is then the responsibility of Chief and Council to issue the BWA, orally and in writing, to all users of the drinking water, government health officials, elected officials, the media, and the general public. The EHO is available to provide Chief and Council advice, assistance and recommendations.

Part of the challenge facing HC is the role of perception of the members of First Nations communities with regards to the safety of their drinking water. Water treatment, monitoring and testing are ineffective if people don't believe that their water is safe to drink and are using alternative sources, such as bottled water, instead of that provided by the community. Therefore, it is necessary to find out how people feel about the safety of their water, and whether there has been a change in this perception since the implementation of the First Nations Water and Wastewater Action Plan (FNWWAP), formerly known as the First Nations Water Management Strategy (FNWMS) in order to measure how effective programs are (whether through increased communication, education or actual improvement of facilities, treatment and monitoring) in increasing people's confidence in and use of the water provided by the community.

Perceptions around water quality and safety clearly have a strong impact on decisions about how to use tap water. Most residents on reserves use their tap water for a wide range of everyday applications, such as tooth brushing, food preparation and cooking. Depending on whether the tap water is or is not safe, there are households either drinking unsafe tap water, or households consuming bottled water who need not do so.

1.2 RESEARCH OBJECTIVES

The purpose of this research is to gain insight into the views of the First Nations On-Reserve population on the quality of the water to which they have access on reserves. This will help to assess the effect of current on-reserve water quality programs and allow us to compare perceptions of water quality to those living off reserve.

Specific objectives include:

- Assess perceived satisfaction with quality, quantity and safety of drinking water quality on reserves;
- Understand purposes for which tap water is used on reserves;
- Determine the sources used in supplying First Nations households with water;
- Compare responses to similar research conducted in 2007; and,
- Evaluate drinking water quality of First Nations living on-reserve compared to the general population living in similarly small communities.

1.3 METHODOLOGY

During the data collection, the survey team collected 687 interviews with residents of small communities in the broader general public, as well as 715 cases among residents of First Nations reserves across the country. No stratification was performed to increase the representation of any particular region of the country. In the small communities where members of the general public were interviewed, the community size was capped at 5,000 residents. As well, any communities that were located within or immediately next to (i.e. within 1 km) Census Metropolitan Areas (CMAs) were also excluded, assuming that they would have access to urban water filtration systems. All reserve communities were included in the First Nations sample, including 15 per cent that have more than 5000 residents. From the two sample frames built (i.e., all communities that are not classified as a reserve and are not located near a large city, with no more than 5,000 residents, and all reserve communities), a randomly selected number of households were drawn for the telephone survey samples. All participants were asked if they consider themselves an Aboriginal person and if they live on a reserve for at least six months a year. In the analysis, 13 cases that were originally collected in the general public sample were re-coded to the First Nations sample of on-reserve residents, based on the answers of these respondents. Each of the two samples yields a level of

precision of up to +/-3.7 per cent for the sample overall at a 0.05 confidence level (i.e., 19 times out of 20) and +/-8 to 10 per cent for most sub-groups that could be isolated in the analysis (including regions).

The survey data were collected over two and three-week periods for the general public (March 17 to March 29) and First Nations on-reserve (April 8 to April 29) samples. Data collection relied on standard monitoring and call-back techniques (i.e., rotation of sample to different times and days of the week and six call-backs). The average length of the interview was nine minutes for the general public and 11 for First Nations residents on reserves (including a few additional questions targeted for only residents on reserves). The survey collection obtained a response rate of 19 per cent for the general public and 24 per cent for First Nations residents on reserves. Appendix B presents details of these calculations.

Prior to conducting the general population survey, the survey instrument was tested with 30 (15 in English and 15 in French) participants, with changes being made after the first 5 to 10 and then again after 10 interviews, to ensure that any changes were addressing particular issues experienced in the interviews. These related to small wording changes and skip logic. The final survey instruments can be found in Appendices A and B.

Survey data were weighted regionally to reflect population figures for First Nations people living on-reserve and for small communities with populations of under 5,000 (i.e., the general public). Survey data were also coded for open ended responses and tabular results were generated to test for differences between residents of First Nations and residents of other small communities in the general public. Results for First Nations residents on reserves were also generated in tables by key segments of the sample, including demographic characteristics (e.g., gender age, education, presence of children), characteristics of the community (e.g., size, proximity to a large centre, frequency of Boil Water Advisories) and perceptions about the water (e.g., quality, safety, change over time).

Some questions are repeated measures from a survey conducted with First Nations residents in 2007¹. Where applicable, survey results from 2007 are featured in the charts and discussed in the report.

1.4 SAMPLE CHARACTERISTICS

The following is a comparison of the sample for First Nations residents on reserves as well as the sample of residents of other small communities under 5,000 (in the general public).

¹ Custom questions included on the 2007-2008 EKOS Research First Nations On-Reserve Syndicated Study.

Characteristics of the Samples

	FN	GP
Province		
British Columbia	22%	10%
Alberta	12%	8%
Saskatchewan	15%	10%
Manitoba	17%	7%
Ontario	15%	10%
Quebec	10%	33%
Maritimes	5%	19%
Yukon/NWT/Nunavut	5%	2%
As far as you know, how far is your community from the closest major city (in kilometres)?		
1-50 km	26%	40%
51-100 km	16%	26%
Over 100 km	36%	27%
Gender		
Male	43%	45%
Female	57%	55%
In what year were you born? (What is your age?)		
<25	12%	1%
25-34	17%	10%
35-44	21%	14%
45-54	21%	25%
65+	26%	49%
What is the highest level of education that you have completed?		
Grade school	32%	11%
High school	34%	36%
College	11%	26%
University	19%	24%
How many people typically live in your household?		
1	11%	19%
2	18%	44%
3-4	33%	28%
5+	38%	9%
How many of those who typically live in your household are children?		
None	37%	69%
1-2	34%	23%
3+	26%	7%

	FN	GP
Age of Child(en)		
Under 2	36%	15%
2-5 years old	41%	29%
6 years or older	80%	79%
How many people over the age of 64 live in your household?		
None	74%	68%
1+	24%	32%
Excluding any young children or seniors over the age of 64, is there anyone living in your household who is vulnerable to illness?		
Yes	16%	10%
No	82%	90%
Is your house used as a daycare for children who do not live in your household?		
Yes	5%	3%
No	95%	97%
Vulnerability (Total Computed taking into account those households with: children under the age of 2, with people over the age of 64, others who are vulnerable to illness and households used as a daycare)		
Yes	52%	44%
No	48%	56%

As shown in the table of sample characteristics, there is a greater concentration geographically in the west for the on-reserve sample, and First Nations communities are more often located large distances from major urban centres. The gender split is similar between the two samples. The First Nations sample is considerably younger than the one collected in other small communities in the general public. The level of education is also considerably lower in First Nations communities, particularly in the proportion with grade school. The number of people in the household is often higher in First Nations communities, with over one-third reporting five or more household members. Twice as many households report children in them in First Nations communities relative to other rural communities, and children are often younger (with more than twice as many of households with children reporting at least one child under than age of two). Given that it is a younger sample, it is not surprising to see that fewer First Nations households have a senior citizen. Overall, however, including young children, seniors, the presence of a daycare in the home and other vulnerable members of the household, more First Nations households on-reserve can be classified as a 'vulnerable household'². Survey results show that perceptions of water quality vary based not only on the characteristics of the community and incidence of Boil Water Advisories, but also on the characteristics of the household, including whether or not they have young children, vulnerable household members and are generally considered a 'vulnerable household'.

² Vulnerable household is computed on the basis of having young children (or operation of a day care), a senior citizen, or someone who is otherwise considered vulnerable to illness in the home.

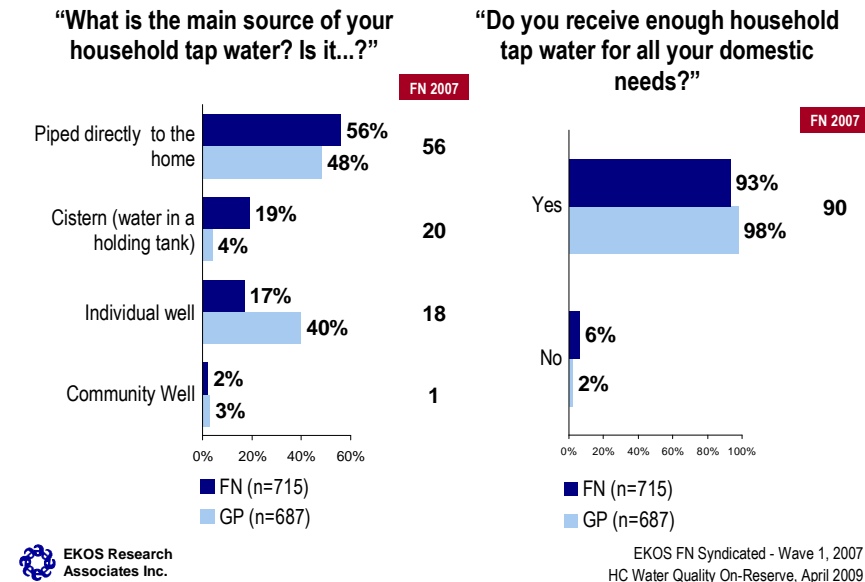
2. SURVEY FINDINGS

Study findings explore the perceptions of First Nations residents on reserves and compare them to the results of residents in other small communities (i.e., with populations under 5,000) in the general public. First Nations results are also compared over time to results collected in 2007, where applicable. Sub-group findings within the First Nations sample of residents living on-reserve are also provided. Survey findings examine overall perceptions of residents regarding the quality and safety of their water supply, as well as perceptions about the change in the quality over time. Uses of tap water and frequency of using bottled or filtered water are also captured, along with the incidence and frequency of Boil Water Advisories (BWA) in the community. Some elements of communications are also explored, including the type of information that would enhance confidence in the water supply and also recall of Boil Water Advisory announcements in First Nations communities.

2.1 SOURCES OF WATER QUALITY

Over half (56 per cent) of First Nations people on-reserve indicate that their main source of household tap water is piped directly to the home. Other sources of tap water include a cistern (19 per cent), or an individual well (17 per cent). While these results have not changed significantly over time among First Nations residents, fewer residents of other small communities have their water piped directly to the home or through a cistern, and are much more apt than those on-reserve to use an individual well as their source of tap water. While nearly all (98 per cent) of the general population indicate they receive enough household tap water, 93 per cent of those on-reserve feel they have enough for all their domestic needs (again within three points of the results for First Nations communities in 2007).

Source and Quantity of Household Tap Water



- First Nations residents on reserves in British Columbia (67 per cent) are more apt than those in any other region to report having their water piped directly to their home. Those in Alberta (37 per cent) are more likely to have an individual well, while those in Manitoba (28 per cent) are more likely to have a cistern as their tap water source. Water piped into the home is more common in the smallest communities (68 per cent with a population under 1000), whereas wells are cited more frequently in the largest communities (35 per cent with more than 5000 residents).

2.2 PERCEPTIONS OF WATER QUALITY AND SAFETY

Survey respondents were first asked to rate the quality of drinking water in their communities. Results highlight the dramatic difference in confidence levels between First Nations and other residents when it comes to the quality of their water. First Nations residents are less positive about the quality of the water they receive than are residents of other small communities. Fewer than half of First Nations residents rated the quality of their drinking water as good (44 per cent), which is considerably lower than the 63 per cent of residents of other small communities (i.e., the general public) who provided the same positive rating about their water. In fact, more than one-quarter of First Nations residents (27 per cent) consider their drinking water quality to be poor, and the same proportion provided a more neutral rating of the quality of their drinking water on-reserve. Smaller proportions of residents of other small communities provided the same type of negative or neutral rating of their water.

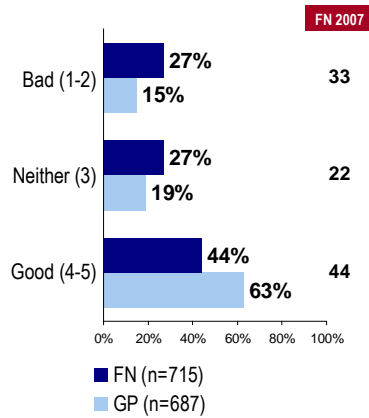
These results are similar to results obtained among First Nations residents two years ago, in 2007. The comparison suggests, however, that perhaps the perceptions around water quality have improved marginally in the worst cases, given that fewer today say that the quality is poor, compared with the 33 per cent who provided this rating of the water quality in 2007.

In terms of safety, results were marginally more positive; whereby three in ten First Nations residents view the safety of their tap water supply as very safe (31 per cent) and nearly four in ten (38 per cent) think it is somewhat safe. That said, three in ten feel that their water is either somewhat unsafe (18 per cent) or very unsafe (11 per cent). By comparison, considerably higher proportions of residents of other small communities perceive their tap water supply to be safe (88 per cent saying somewhat or very safe, compared with 69 per cent of residents on reserves).

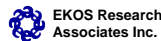
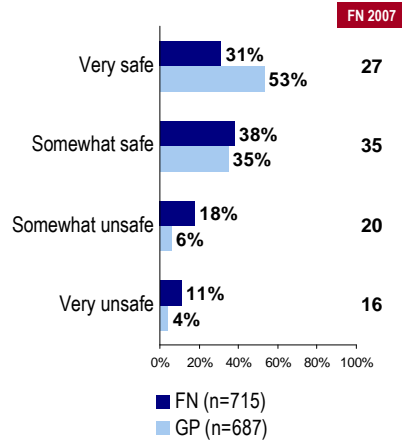
Again, while a comparison to the general public highlights a much greater problem on-reserve, results over time suggest a slight improvement since 2007, when 62 per cent said that their water was somewhat or very safe and 36 per cent said that it was unsafe (contrasted against 29 per cent today).

Water Quality and Safety

“How would you rate the quality of drinking water on your reserve?”



“How safe or unsafe do you think your tap water supply is? Is it...?”



EKOS FN Syndicated - Wave 1, 2007
 HC Water Quality On-Reserve, April 2009

Among First Nations residents living on-reserve, the region they are located in, their proximity to other communities, and the population size, along with whether they have had any Boil Water Advisories (BWA's) (currently or in the past), each have linkages to perceptions of the quality and safety of water on their reserve. This is also true of the number of individuals and children in the home which contribute to a sense of vulnerability and increases concerns about water quality and safety.

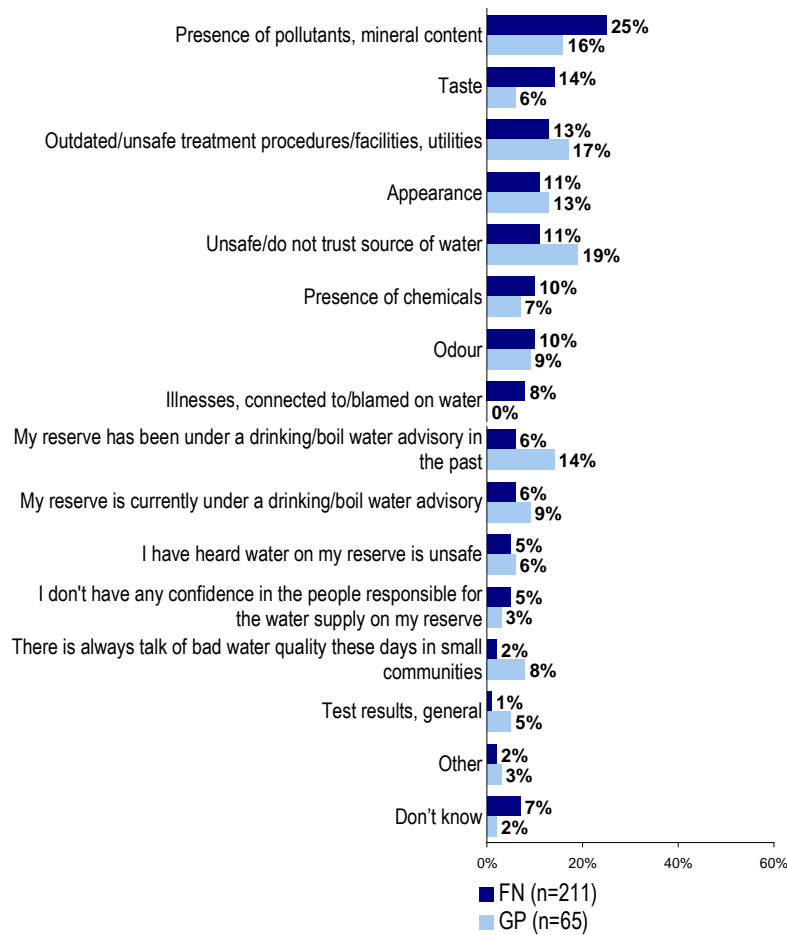
- Reserve residents in British Columbia (60 per cent) and in Quebec (64 per cent), as well as in smaller First Nations communities (i.e., under 500 individuals) typically provide more positive ratings of their drinking water quality. Residents on reserves in British Columbia (48 per cent), the smallest reserves, and those closest to a major city, as well as reserves that have not experienced any BWA's also hold more positive perceptions of water safety than others do (rating their tap water supply as very safe). More positive responses about safety come from residents who believe there has been improvement in the safety of their tap water over the last five years. In contrast, residents on reserves in Manitoba (32 per cent rate quality as good) and Alberta (26 per cent) are more critical of the quality of their drinking water.
- Households with children under the age of five and those who have vulnerable individuals in their home are more critical of the quality of their drinking water. Similarly, households with children particularly where the children are young (i.e., under two) are typically more negative in their assessment of the safety of their water. This is also true of households with more occupants in them.
- Ratings of water quality and safety are typically more negative among residents on reserves in Alberta (40 per cent rate quality as poor and 20 per cent view tap water supply as very safe), and in the largest communities (i.e., with over 5000 residents) (43 per cent poor and 19 per cent very safe), as well as among those who live more than 50kms away from a major city (32 per cent bad and 26 per cent very safe), or are currently or have recently had a drinking/boil water advisory (46 per cent view water quality as poor and 11 per cent rate safety of water supply as very safe). The contrast is strongest among those who recall three or more BWA's in the past five years (44 per cent rate quality as poor and 13 per cent feel water supply is very safe); providing the most negative ratings of all residents.
- Residents with tap water piped directly to their homes are more likely to be satisfied overall with the quality (68 per cent view as good) and safety (70 per cent) of their tap water. Those with an individual well (31 per cent rate quality as bad and 10 per cent as very safe) or cistern (25 per cent rate quality as bad and 11 per cent as very safe) more often rate the quality and safety of their tap water poorly.

Respondents who feel their tap water supply is unsafe (somewhat or very) were asked why they believe this to be the case. The presence of pollutants and/or mineral content was noted by one-quarter of First Nations respondents. This was followed by taste (14 per cent), outdated/unsafe treatment procedures/facilities and utilities (13 per cent), and then appearance (11 per cent). Unsafe/untrustworthiness of the source of water (11 per cent), presence of chemicals, as well as odour (both cited by 10 per cent of First Nations respondents) were among the top seven reasons provided for unsafe water.

A comparison against the responses of residents of other small communities suggests that First Nations residents are more likely to blame pollution and the qualities of the water that they can feel/perceive themselves (i.e., pollution, chemicals and taste). Other members of the general public are more apt to suspect the treatment facilities, the water source, and to point to BWA's and general discussion (e.g., in the media) about poor water quality in small communities.

Reasons for Unsafe Water

“Why do you consider your tap water supply to be unsafe?”

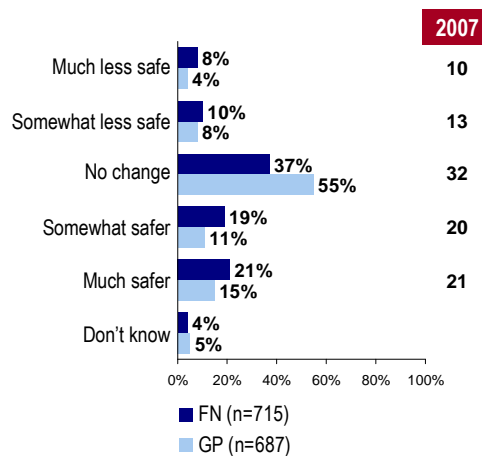


- First Nations residents with a college education were more likely than others to list the presence of pollutants and/or mineral content (36 per cent) as is also the case among residents of Manitoba (39 per cent); and Alberta reserve residents noted the appearance (34 per cent) and odour (22 per cent) of their water as reasons to believe their tap water supply is unsafe (although the sample is quite small; n=32). Residents of Manitoba point to pollutants and mineral content in the water. Those in larger communities (5000 or more residents) are also more likely to consider their tap water unsafe because of the appearance (23 per cent) and odour of it (26 per cent), and the smallest communities (with fewer than 500 residents) are slightly more apt to focus on the presence of chemicals (20 per cent) although again, the small sample sizes suggest caution in interpretation; n=37-40.

Respondents were also asked about their perception of any changes in water quality in the last five years and their perceived reasoning behind this decline/improvement. More than one-third of First Nations residents believe that their water quality has remained the same over the past five years (37 per cent). Four in ten believe that their water is now safer than it was (19 per cent say somewhat safer, 21 per cent much safer). That said, just under one in five judge their water to be less safe to drink than it was five years ago (10 per cent somewhat less safe, eight per cent much less safe). The general public, on the other hand, are more apt to say there has been no change in their water quality over the last five years (no more or less safe to drink than five years ago) in comparison (reported by 55 per cent), although 12 per cent believe that their water has deteriorated over time, which is only slightly lower than the results among First Nations communities. Results for First Nations communities show a marginal improvement from 2007 when 23 per cent judged their water to be very or somewhat worse in terms of safety (compared with the current 18 per cent).

Perceived Change in Water Quality

“Would you consider your tap water to be more or less safe to drink than five years ago? Is it...?”

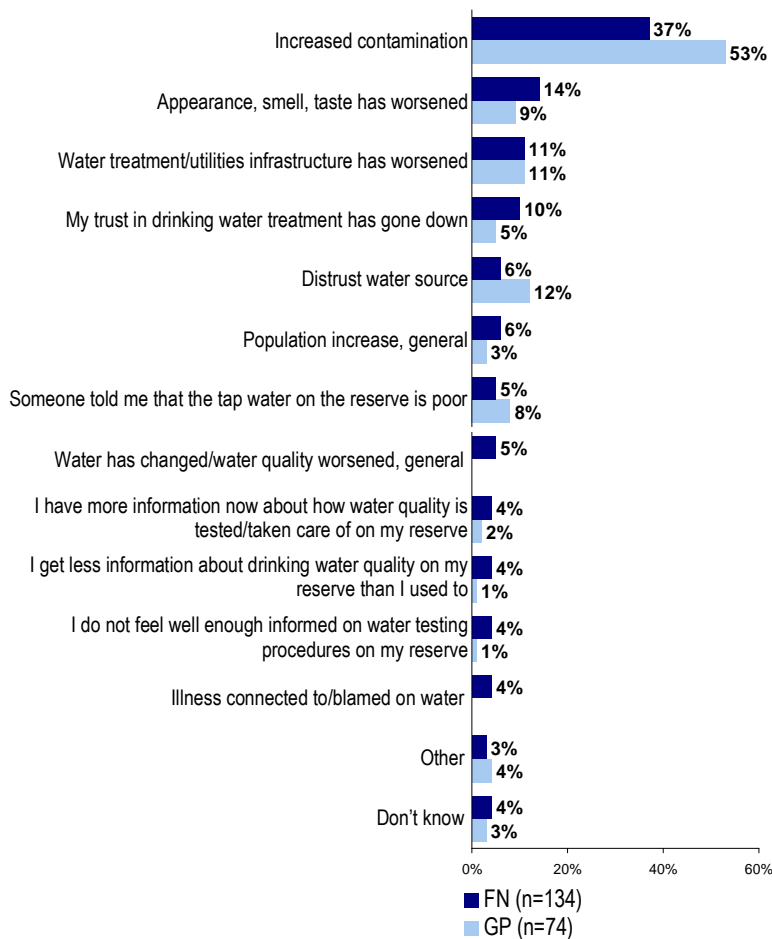


- Residents of larger reserves (i.e., over 5000) are more likely to consider their tap water to have deteriorated over time (31 per cent perceive tap water as less safe), as are those living in communities that have experienced three or more BWA's (27 per cent), and those who are currently or have recently (34 per cent) had a BWA in place. Perceived deterioration of water quality also goes hand in hand with a general view that one's water is unsafe and of poor quality. In fact, 47 per cent of those judging their water to be very unsafe also report that their water quality has deteriorated over the last five years.
- Residents on reserves in Manitoba, Ontario and Alberta (between 23 and 25 per cent, each viewing their tap water to be less safe compared to five years ago) are more apt than others across the country to say that their water has deteriorated over time.
- First Nations residents more apt to say their water quality has remained the same are within 50kms from a major city (47 per cent), as well as those who live on-reserve in the provinces of Quebec (53 per cent) and Alberta (48 per cent).
- Reserve residents living in Saskatchewan (52 per cent) are more apt than those from other regions to view their tap water as safer than five years ago.

First Nations respondents who reported their tap water quality to be less safe to drink than five years ago were asked for their reasons for this. At the top of the list, more than one-third identified increased contamination as the source of deterioration. Residents of other small communities considering their tap water as less safe today are considerably more apt to point to contamination as the problem (53 per cent of the general public noted this, compared with 37 per cent of First Nations respondents). Distrust of their water source was mentioned by more general public respondents (12 per cent) compared reserve residents (six per cent). Less than one in six residents on reserves (14 per cent) cited appearance, smell or taste as the reason for judging the water to be inferior today. One in ten pointed to water treatment/utilities infrastructure having worsened as well their trust in drinking water treatment having declined over time. Other reasons cited by roughly one in twenty are: distrust in the water source; population increase (general); someone having told them that the tap water on the reserve is poor; and a general perception that the water has changed/water quality worsened. Some also said that they have more information now about how water quality is tested or taken care of on their reserve, they get less information than they used to about drinking water quality on their reserve, they don't feel well enough informed on water testing procedures, or there was illness (theirs or others) which ultimately was blamed on water.

Reasons for Declining Water Quality

“Why do you consider your tap water to be less safe to drink than five years ago?”



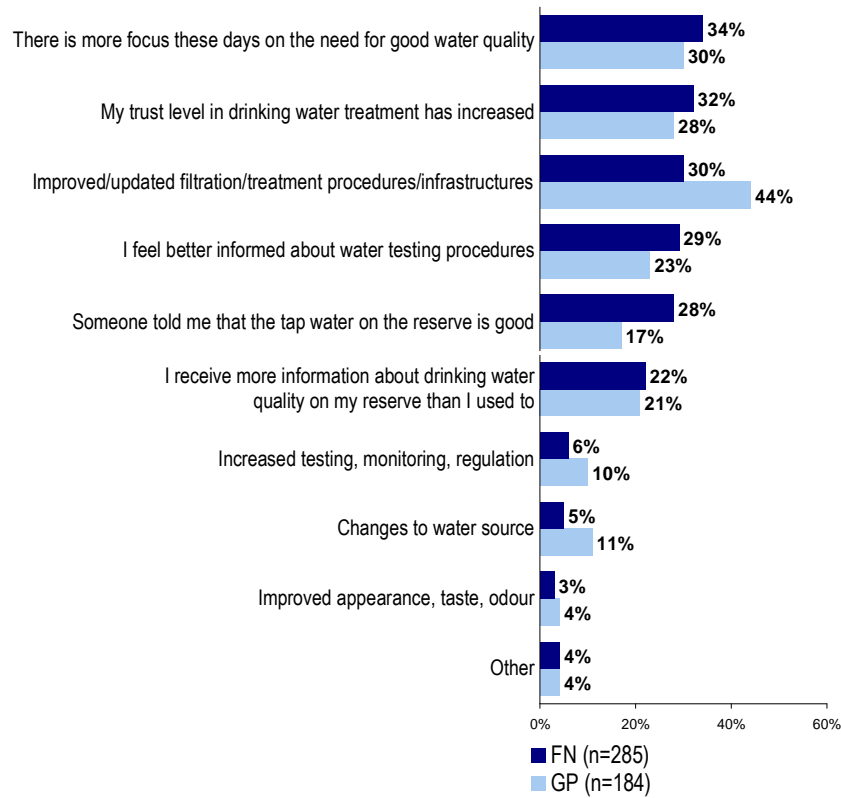
HC Water Quality On-Reserve, April 2009

First Nations respondents who felt their tap water quality to be safer to drink than five years ago were asked about their main reasons for this perceived increase in water quality. One-third said that there is more focus these days on the need for good water quality, or that their trust level in drinking water treatment has increased. Three in ten noted there are improved/updated filtration and treatment procedures/infrastructures, that they feel better informed about water testing procedures, or that someone had told them that the tap water (on the reserve) is good. Just under one-quarter (22 per cent) said they receive more information about drinking water quality on their reserve than they used to. A handful of residents pointed to increased testing, monitoring, regulation; changes to water source; and improved appearance, taste, odour as reasons behind their perceived increase in water quality.

There are two significant differences between the reasons provided for increasing water quality among the First Nations residents living on-reserve and those of the general public (living in a similarly small community). First, the general public were considerably more likely (11 per cent more) to point to improved/updated filtration/treatment procedures/infrastructures as the foundation for feeling better about tap water today than five years ago. First Nations respondents were also more apt (11 per cent more) to report that someone told them that their tap water on the reserve is good. .

Reasons for Increasing Water Quality

“Why do you consider your current tap water to be safer to drink than five years ago?”



- First Nations reserve residents in British Columbia (45 per cent) and Ontario (49 per cent) were more likely to cite improved/updated filtration/treatment procedures/infrastructures as a reason they consider their current tap water to be safer to drink than five years ago. Alberta reserve residents (18 per cent) were more apt to cite a change in their water source as a reason, as were Ontario reserve residents (12 per cent). Ontarian were also more likely to cite increased testing, monitoring and regulation (14 per cent). Residents on reserves in Saskatchewan (44 per cent) were more apt to point to a greater trust in the treatment process than they used to have five years ago.
- Youth (under 25 years of age) and those with a grade school education are more apt than others to say that someone told them that the tap water on the reserve is good (49 per cent among youth and 27 per cent of grade school educated reserve residents), that they generally feel better informed (43 and 37 per cent), that there is a greater focus on water quality these days (52 and 41 per cent), and that they receive more information about drinking water quality on their reserve than they used to (32 and 31 per cent, respectively).

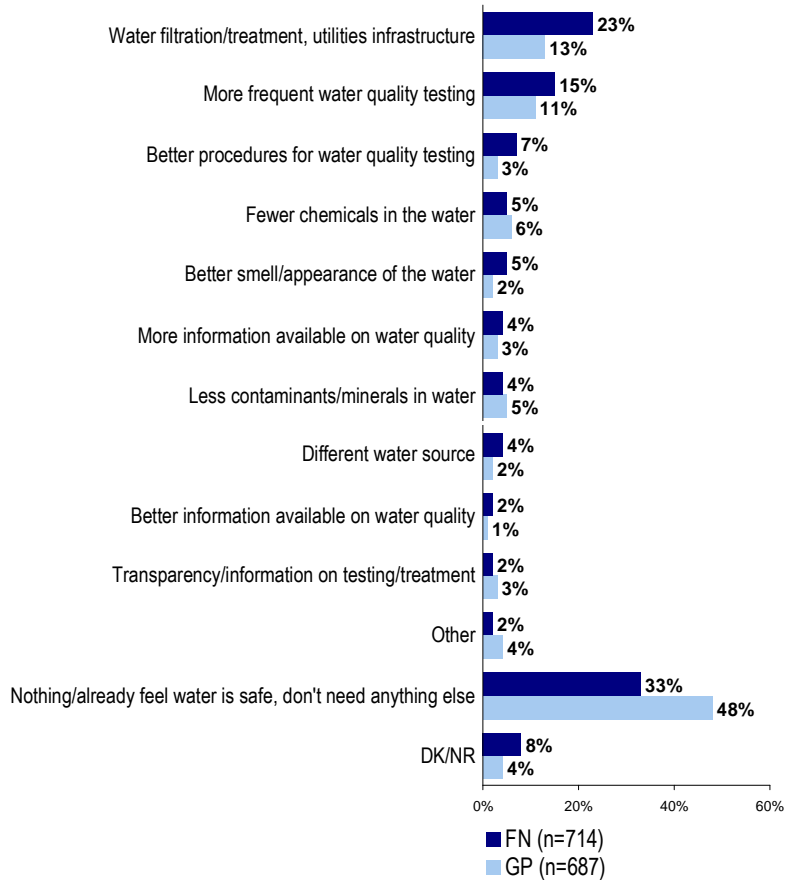
2.3 COMMUNICATIONS NEEDS REGARDING WATER QUALITY

Respondents were asked what would make them feel safer about their tap water quality (or even more safe, in the case of those who already think it is safe). At the top of the list was water filtration/treatment and/or utilities infrastructure, cited by one in four (23 per cent), followed by more frequent water quality testing (15 per cent). Fewer than one in ten said that better procedures for water quality testing would provide reassurance, and one in twenty noted fewer chemicals in the water, and a better smell or appearance of the water as potential reassurance measures. Only a handful of First Nations respondents would feel safer about their tap water quality if more information was available on water quality, if there were less contaminants/minerals in water, or if they used a different water source. It should be noted that one-third of First Nations respondents said that nothing was required as they already feel that their water is safe. In comparison, nearly half of other small community residents also said that no further reassurance was required.

Results are very similar among residents of other small communities, with slightly less emphasis placed on water filtration and infrastructure (although this still tops the list).

Perceived Requirements for Reassurance

“What would make you feel (even) safer about your tap water quality?”



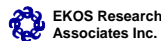
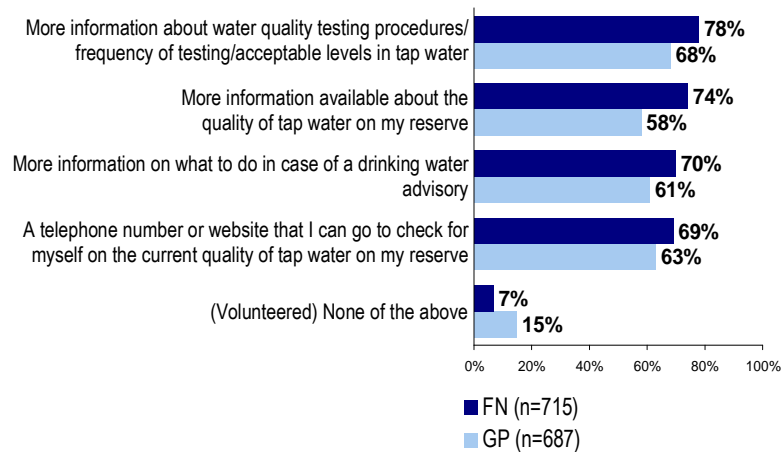
- Water filtration/treatment, and/or utilities infrastructure is more apt to make tap water quality safer according to First Nations residents on reserves who have had BWA's (29 per cent), as well as those in Ontario (31 per cent). Alberta reserve residents (18 per cent) were less likely than other regions to reply that nothing would make them feel safer, while Quebec reserve residents (43 per cent) were most likely to cite nothing would make them feel safer as they already feel water is safe.
- Reserve residents who are under 25 years of age are least likely (44 per cent) to require any further reassurance as they feel their tap water quality is already safe (or 14 per cent are unsure of what would make them feel safer about their water quality).

- Communities that have not had any previous BWA's (39 per cent), those who consider their drinking water quality to be good (50 per cent), as well as those who view their tap water safety as having improved (40 per cent) over the past five years are also less likely to need any further reassurance as they already feel water is safe.

Respondents were then asked about the types of information that would help to reassure them about their tap water quality. Roughly three-quarters of First Nations residents living on-reserve feel that more information about water quality testing procedures/frequency of testing or the acceptable levels in tap water, or more information about the quality of tap water on their reserve would make them feel safer. Seven in ten also wish to know more about what to do in case of a Drinking Water Advisory (DWA), as well as be provided with a telephone number or website they could access to check on the current quality of their reserves' tap water. Compared to residents of other small communities, there is a higher demand among First Nations reserve residents for more information about water quality testing procedures/frequency of testing, what to do in the case of a DWA, and a telephone number or website that would allow them to check current quality of tap water on their reserve, with the widest gap in demand for information about quality of tap water on their reserve.

Perceived Requirements for Reassurance (Prompted)

“Please indicate which of the following would make you feel safer about your tap water quality.” [Prompted list]



HC Water Quality On-Reserve, April 2009

- First Nations residents on reserves in Alberta have a stronger demand for more information across all areas (between 79 to 88 per cent, each), while First Nations residents on reserves in Quebec express less demand for information (between 53 to 65 per cent, each).

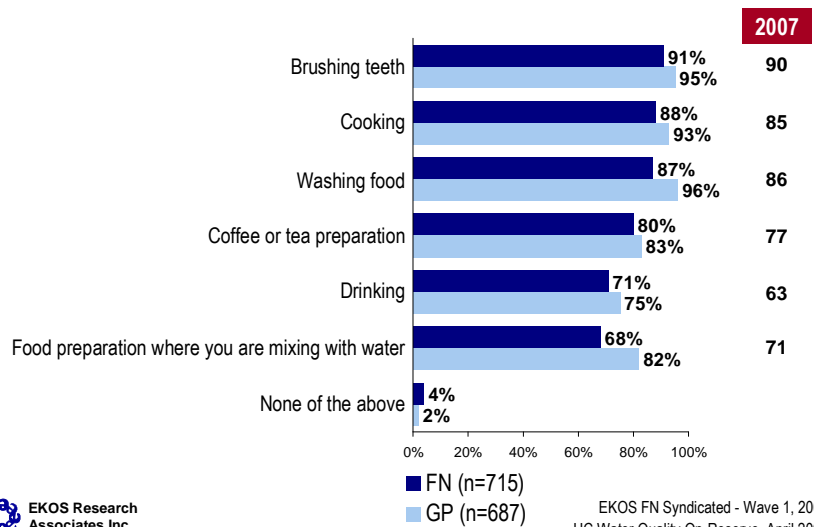
- Households with children are more apt to be looking for information. Those with younger children, in particular, are more apt to be looking for information about what to do in a BWA (80 per cent).
- Residents with the least education also have the greatest demand for information across all types of information examined (between 76 and 82 per cent, each).
- Residents who feel the quality of their drinking water is poor and/or their tap water supply is less safe are more apt to be looking for information in general.

2.4 TAP WATER USAGE

First Nations residents are less likely to use their tap water across all applications compared with residents of other small communities. For example, tap water is used by most residents on reserves for brushing teeth (91 per cent) and washing food (87 per cent). It is also used by most residents for cooking (88 per cent), and, to a lesser extent, for coffee or tea preparation (80 per cent). On the other hand, only seven in ten use tap water for drinking (71 per cent), or for food preparation that involves mixing ingredients with water (68 per cent). These are less frequently used applications on-reserve, relative to the usage in other small communities (in the general public), where 75 to 82 per cent use tap water for these purposes. In most cases, there is a slight increase of a few percentage points in use of tap water for individual applications on-reserve since 2007. The most notable increase is in drinking which is up 8 points from 63 per cent in two years.

Usage of Tap Water

“Do you use your tap water for any of the following...?”



- First Nations people on-reserve in British Columbia (85 per cent) are more apt than those in any other region to report using tap water for drinking, and coffee or tea preparation (87 per cent). Residents in British Columbia (76 per cent) and Quebec (81 per cent) are more likely than other regions to use tap water as an ingredient in food preparation. Residents in Saskatchewan are least likely to use tap water as an ingredient in food preparation (57 per cent) or for making coffee and tea (73 per cent). Ontario reserve residents are also less likely (72 per cent) than others to use tap water when preparing coffee or tea. Residents of Quebec reserves are the most likely across the country to use their tap water in the preparation of food (81 per cent). Residents of the largest communities (over 5000 population) tend to use their tap water least across all applications.
- Naturally, those on-reserve who use tap water for all uses explored in the survey are more likely to be comfortable with their quality and safety of water overall (rating the quality of drinking water in their community as good, the safety of the tap water as somewhat to very safe, and their tap water as safer today than five years ago).

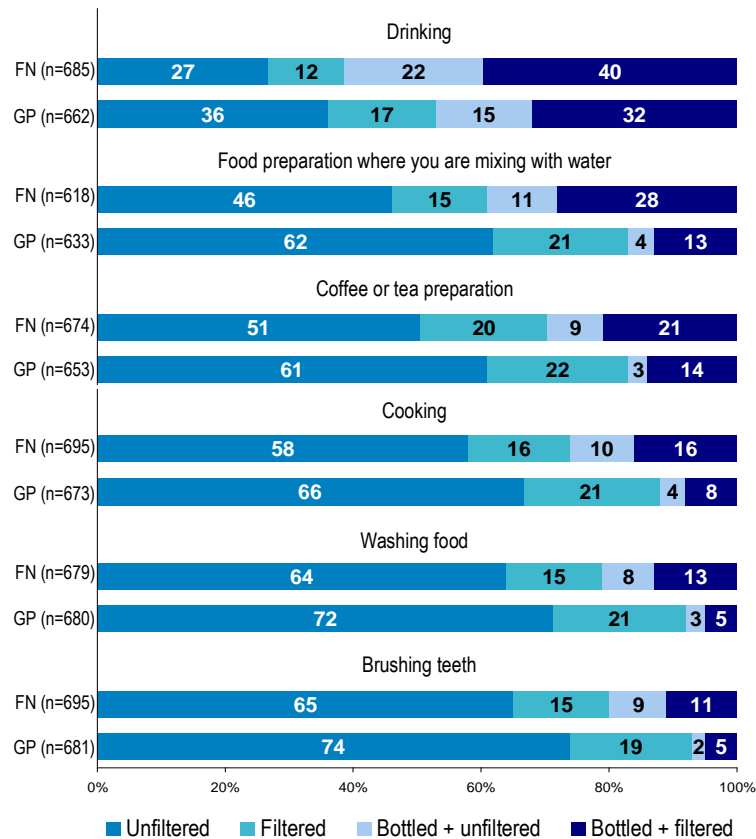
2.5 USE OF UNFILTERED TAP WATER

Two in five (40 per cent) of First Nations on-reserve use a combination of bottled plus filtered water for drinking. Other sources of drinking water include both bottled and unfiltered (22 per cent), filtered only (12 per cent), or unfiltered only (27 per cent). Usage of unfiltered water increases for food and beverage preparation, such as water for use as an ingredient in food preparation (46 per cent) or for coffee or tea preparation (51 per cent), and increases steadily for cooking (58 per cent), washing food (64 per cent), and brushing teeth (65 per cent). Residents on reserves are more likely than residents of other small communities to use a combination of bottled and filtered water for all applications explored in the survey.

When asked whether respondents ever used bottled water for anything in their household, First Nations on-reserve residents (64 per cent) were more likely than residents of other small communities (46 per cent) to respond that they did.

Filtered vs. Unfiltered Tap Water

“Is that filtered or unfiltered tap water in each of these cases...?”

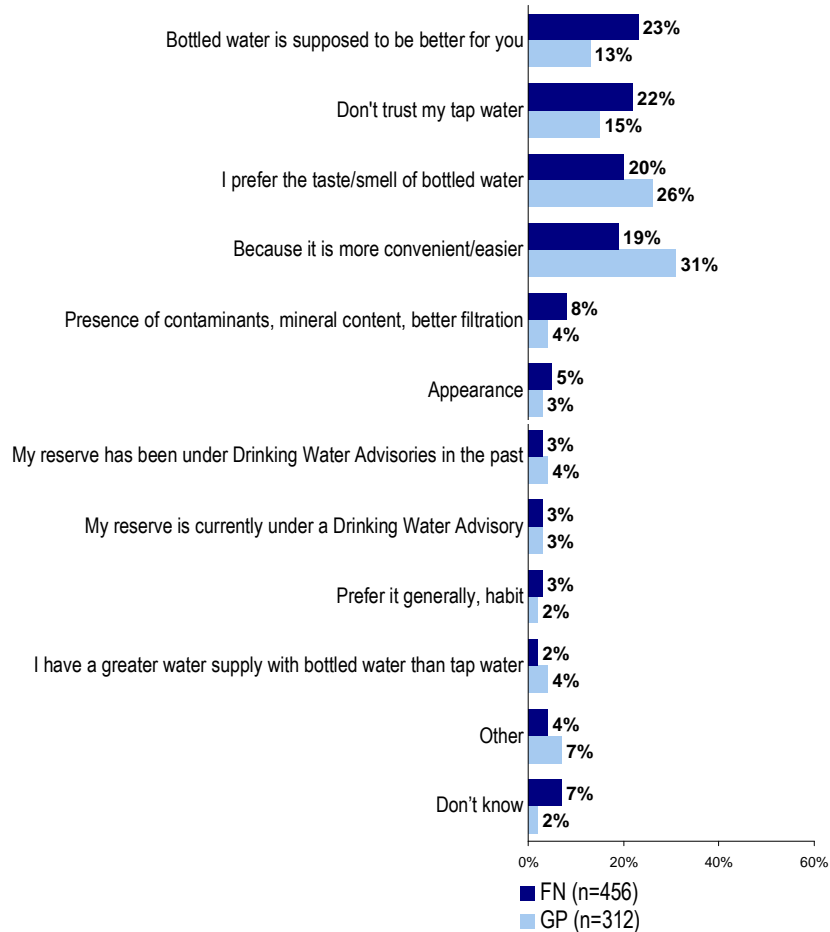


- First Nations people on-reserve in British Columbia are more likely than those in any other region to use unfiltered water for all six water consumption uses (ranging from 40 to 77 per cent). Residents of the Atlantic also seem higher in their consumption of unfiltered water; however, the results are not statistically different, often because of small sample size in this region. Residents on reserves in Ontario are more apt than those in other regions to use both bottled and filtered water for drinking (54 per cent), as are residents of larger reserves in general (51 per cent). Ontario residents are also more apt to use bottled and filtered water for washing food (19 per cent), cooking (22 per cent), brushing teeth (17 per cent) and coffee/tea preparation (28 per cent).
- Those on-reserve who use bottled plus filtered water are less likely to be comfortable with the quality and safety of their water, and more apt to have had BWA's in the past, particularly when using the water for drinking, cooking or preparing food/drinks.

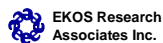
First Nations people living on-reserve provide a variety of reasons for using bottled instead of tap water. One in five said that bottled water is supposed to be better for you (23 per cent), that they don't trust their tap water (22 per cent), they prefer the taste or smell of bottled water (20 per cent), or that bottled water is more convenient to drink (19 per cent). Significantly more residents of other small communities cited the latter two reasons; that they prefer the taste or smell of bottled water or the convenience, when compared with First Nations residents. A scattering of other reasons for using bottled water were also provided by residents on reserves, including better filtration in bottled water (of contaminants, minerals, etc.) (eight per cent), its appearance, that the reserve has had Drinking Water Advisories in the past or is currently under a drinking Water Advisory, that they prefer it generally, or that it is a habit, or that they have a greater water supply with bottled water than tap water.

Reasons for Using Bottled Water Over Tap Water

“Why is it that you use bottled water instead of tap water?”



(Asked of those who use bottled water for anything in their household)



HC Water Quality On-Reserve, April 2009

- First Nations people living on-reserve in Alberta are more likely than those in any other region to use bottled water because they don't trust their tap water (39 per cent) or because of the appearance of their tap water (14 per cent). Residents on reserves in Manitoba are more apt (36 per cent) than those in other regions to use bottled water because it is supposed to be better for them. Quebec reserve residents are more likely than others to use bottled water as it is more convenient and/or easier (32 per cent).
- As one might expect, First Nations residents who drink bottled water because they don't trust their tap water are typically less satisfied with the quality (43 per cent) and safety (53 per cent) of their tap water. Conversely, those who use bottled water because it is more convenient are

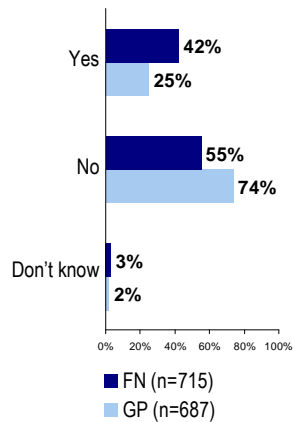
more apt to be satisfied with the quality (35 per cent rate quality as good) and safety of their tap water (41 per cent rate tap water as very safe).

2.6 WATER ADVISORIES

Four in ten (42 per cent) First Nations people living on-reserve indicate that they have been or are currently under a Drinking or Boil Water Advisory. This is compared with 25 per cent of residents in other small communities. One in ten (11 per cent) residents on reserves reported a boil water advisory within the past few weeks. One-third (32 per cent) experienced their most recent DWA months ago, while two in five (41 per cent) recall that the last DWA took place a year or more ago. In comparison, in terms of when the last DWA or BWA was experienced by the general public, this is rather similar to that which was experienced by those on-reserve although fewer within the general public were unsure when the last advisory was issued and thus more (within the general public) identified the last one as having taken place months ago.

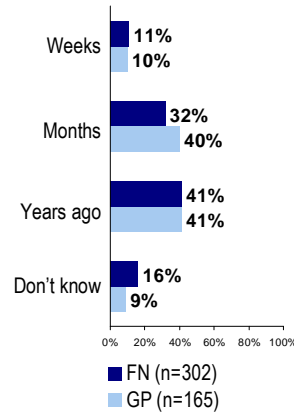
Drinking Water Advisories

“Has your reserve ever been or are you currently under a Drinking or Boil Water Advisory, as far as you know?”



EKOS Research Associates Inc.

“When was the last Drinking or Boil Water Advisory issued on your reserve?”



HC Water Quality On-Reserve, April 2009

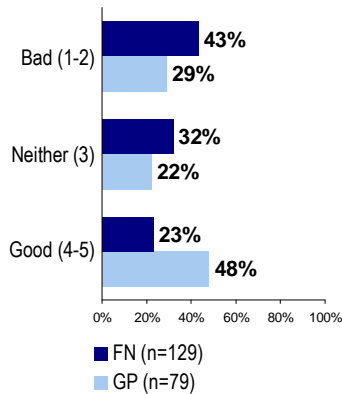
- As might be expected, residents on reserves that have had an Advisory are typically less comfortable overall with the quality (52 per cent rate quality as bad), safety (57 per cent rate tap water as very unsafe) and deterioration (56 per cent view tap water as less safe compared to five years ago) of their water.

First Nations people living on-reserve who have not experienced a DWA/BWA within the last 12 months provide a more positive rating of the quality and safety of their tap water supply compared to First

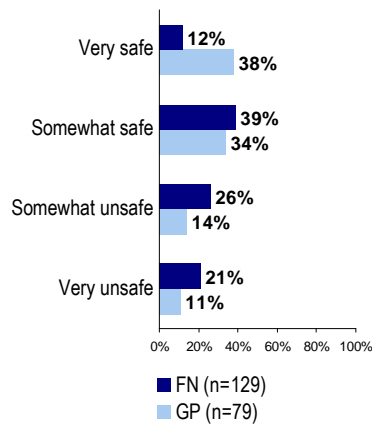
Nations people living on-reserve who have been under a water advisory within this timeframe. While half (51 per cent) of those who have not experienced a DWA/BWA rate their drinking water quality as good, less than one quarter (23 per cent) of First Nations reserve residents who have experienced a DWA/BWA within the last 12 months feel the same. Similarly, nearly three quarters (73 per cent) of reserve residents who have not experienced a DWA/BWA within the last 12 months perceive their tap water supply as somewhat or very safe, while only half (51 per cent) of First Nations reserve residents who have experienced an advisory within the last 12 months view their tap water supply this way.

Water Quality and Safety: Replicated

“How would you rate the quality of drinking water on your reserve?”



“How safe or unsafe do you think your tap water supply is? Is it...?”

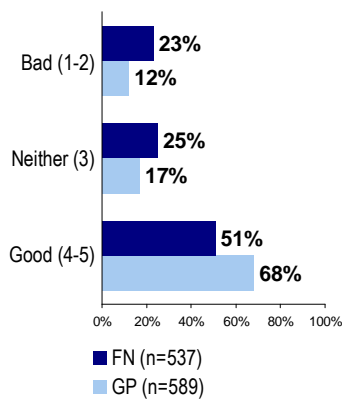


Those who have experienced a DWA/BWA within the last 12 months

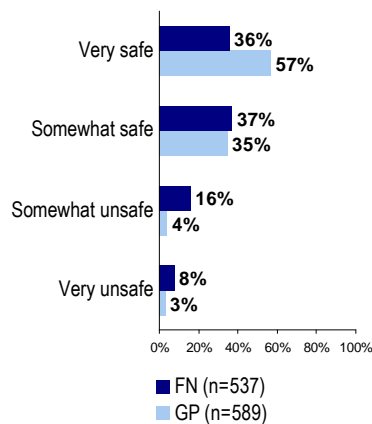
HC Water Quality On-Reserve, April 2009

Water Quality and Safety: Replicated (2)

“How would you rate the quality of drinking water on your reserve?”



“How safe or unsafe do you think your tap water supply is? Is it...?”



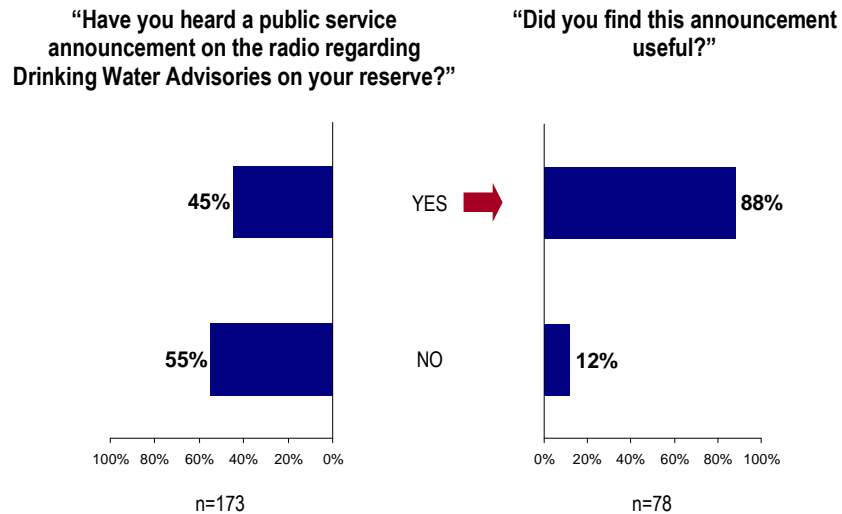
Those who have not experienced a DWA/BWA within the last 12 months

HC Water Quality On-Reserve, April 2009

2.7 COMMUNICATIONS OF BOIL WATER ADVISORIES

Nearly half (45 per cent) of First Nations people on-reserve who reported a DWA within the past 12 months also reported that they recall hearing a public service announcement about a DWA on the radio. Of those who had heard this announcement, one in three (36 per cent) recalled being told to boil water before consuming it, just over one in two (22 per cent) recalled that there was a problem with the water and another one in six (14 per cent) recalled that they should exercise caution in using/how they use the water. Of those who heard the radio announcement, most (88 per cent) found the announcement useful.

Awareness of Public Service Announcement on DWA



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Associates Inc.

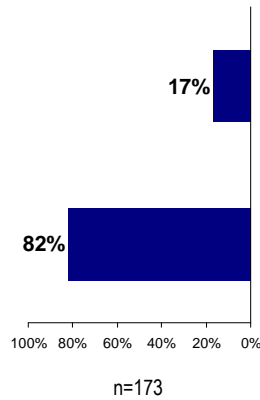
HC Water Quality On-Reserve, April 2009

- Residents on reserve in Manitoba (65 per cent) are more likely than those in any other region to have heard about the DWA on the radio.
- Households identified as more vulnerable (including having younger children, under the age of two) are more apt (54 per cent) to have heard the radio announcement.

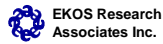
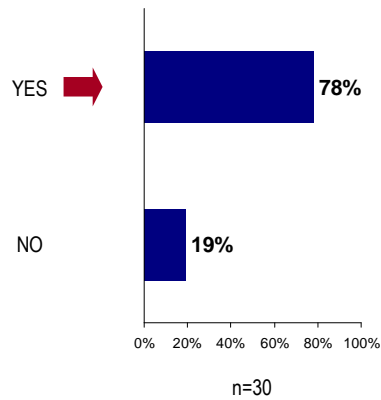
Fewer than one in five (17 per cent) have seen a door hanger addressing DWA's on their reserve. Nearly four in five of those who recall the door hanger (78 per cent) found the information on the door hanger to be useful in the Advisory and two in three (64 per cent) recall the notification as having provided purification suggestions.

Awareness of A Door Hanger on DWA

“Have you seen a door hanger addressing Drinking Water Advisories on your reserve?”



“Did you find this useful?”



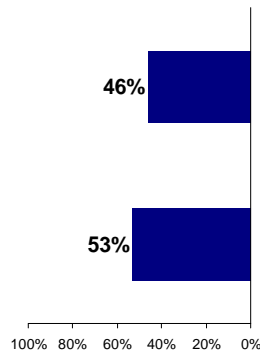
HC Water Quality On-Reserve, April 2009

- Reserve residents whose community has recently or are currently under a DWA are more apt (27 per cent) to have seen a door hanger addressing these issues.

Awareness of the poster discussing DWA's is mixed, with 46 per cent indicating that they have seen the poster. Of those who have seen the poster, nine in ten (91 per cent) found it to be useful. Details recalled from the poster include the Water Advisory generally, exercising caution by boiling water, dates and times associated with the Advisory, causes of the problem, and measures taken to control or solve the problem.

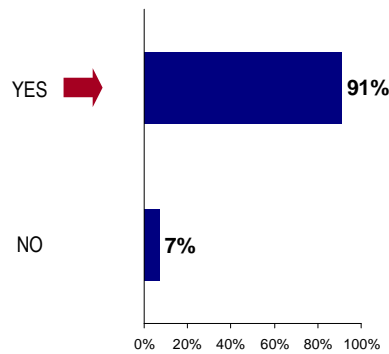
Awareness of A Poster Discussing DWA

“Have you seen a poster discussing Drinking Water Advisories on your reserve?”

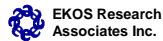


n=173

“Did you find this useful?”



n=80



HC Water Quality On-Reserve, April 2009

2.8 PROFILE OF RECENT BWA OR DWA RESERVE RESIDENTS

Following is a brief snapshot of the First Nations residents who recently experienced a BWA or DWA. The results suggest some differences among residents who have experienced an Advisory in the past four weeks, while other results suggest that a BWA/DWA in the previous year generates different views.

Profile of Reserve Residents According to Last Drinking or Boil Water Advisory Issued

	Within the last 1-4 weeks	In last year (but not in last month)	More than 1 year ago	Never
How would you rate the quality of drinking water on your reserve?				
Bad	46%	41%	22%	23
How safe or unsafe do you think your tap water supply is? Is it...				
Very safe	11%	13%	34%	36
Very unsafe	30%	16%	7%	8
Would you consider your tap water to be more or less safe to drink than five years ago? Is it...				
Less safe	34%	27%	21%	14
Why do you consider your current tap water to be safer to drink than 5 years ago?				
Improved/updated filtration/treatment procedures/infrastructure	18%	20%	44%	29
Do you use your tap water for any of the following...				
Drinking	52%	66%	73%	73
Cooking	72%	87%	89%	89
Brushing teeth	74%	92%	92%	92
Washing food	74%	79%	93%	88
Food preparation where you are mixing with water	46%	66%	70%	71
Coffee or tea preparation	65%	78%	82%	82
None of the above	14%	3%	3%	3
Do you use your bottled water for any of the following...				
Drinking	97%	95%	88%	94
Cooking	61%	40%	36%	40
Brushing teeth	42%	31%	32%	31
Washing food	50%	32%	25%	32
Food preparation where you are mixing with water	61%	50%	52%	51
Coffee or tea preparation	57%	49%	42%	41
Have you seen a door hanger addressing Drinking Water Advisories on your reserve?				
Yes	27%	16%	10%	n/a

- Reserve residents who have had a DWA within the last month are more likely to perceive the quality of drinking water in their community as bad and the safety of their tap water supply as very unsafe. As the recency of the last DWA declines, so too does their rating of the quality and safety of water in their community being poor. Similarly, those who have experienced a DWA in the last four weeks are more apt to consider their tap water to be less safe than five years ago. Once again, this consideration declines with the increasing amount of time since their last drinking water advisory.
- First Nations reserve residents who believe their current tap water is safer to drink than five years ago due to improved and/or updated filtration, treatment procedures, and infrastructure more often had their last drinking water advisory over one year ago.
- First Nations people on reserve who have had a DWA within the last four weeks are less likely to use their tap water and more apt to use bottled water for any of the applications discussed compared to those who last experienced a DWA more than one month ago.
- Reserve residents whose community recently (in the last four weeks) experienced a DWA are more apt to have seen a door hanger addressing DWA's on their reserve.

APPENDIX A
FIRST NATIONS SURVEY INSTRUMENT

INTRO

Hello, my name is ... and I work for Ekos Research Associates. We are conducting a survey for the Government of Canada to obtain the views of Canadians living in smaller, rural communities on important health related issues. The survey will only take 8 minutes, and does not involve sales of any kind. Your participation is voluntary and will not affect any services you might receive from the Government of Canada, but it is appreciated as it helps the government to design and deliver better services for all Canadians. The survey is registered with the National Survey Registration System and all of your answers will remain completely confidential. Can I ask if you are at least 18 years old and a regular resident of this household?

- Yes May I begin? 1
- No 2

INTRO2

If... INTRO.EQ.2

Is there someone at home now that I could speak to who is 18 years of age or older and a regular resident of this household?

- Yes Ask to speak to that person and repeat intro..... 1 ->INTRO
- Person not available arrange callback..... 2 ->INTRO
- No, there's nobody else REFUSAL 3 ->THNK2

PRIV [0,0]

This call may be recorded for quality control or training purposes.

SEX

Record gender of respondent

DO NOT ASK

- Male..... 1
- Female 2

LANGI

Record language of correspondence

DO NOT ASK

- English..... 1
- French..... 2

Q30

Do you consider yourself to be an Aboriginal person?

- Yes..... 1
- No -> THANK & TERMINATE; CODE AS IG 2 ->THNK2

Q31

If.. Q30.EQ.1

Do you live on a reserve for at least 6 months of the year?

- Yes..... 1
- No -> THANK & TERMINATE; CODER COMME IG 2 ->THNK2

CONF1

Before I start the interview, I'd like to confirm the first three digits of your postal code to help us determine the province and size of community that you live in. What I have listed for your postal code is &&APOSTC.

- Yes this is correct 1
- No this is not correct..... 2

CONF2

If.. CONF1.EQ.2

Can you provide me with the first 3 digits of your postal code.

- first 3 digits of the postal code-> ACONF2; S3 L1 C3 1
- DK/NR 9

SCR1

As far as you know, how many people live on your reserve?

- Less than 500..... 1
- 501 1000..... 2
- 1001 5000..... 3
- More than 5000 -> THANK & TERMINATE; CODER COMME IG 4 ->THNK2

Q1

On a scale from 1, very bad to 5, very good with 3 meaning neither good nor bad, how would you rate the quality of drinking water on your reserve?

- 1 Very bad 1
- 2 2
- 3 Neither good nor bad 3
- 4 4
- 5 Very good 5
- (DO NOT READ) Don't know 8
- (DO NOT READ) Refuse 9

Q2

How safe or unsafe do you think your tap water supply is? Is it...

READ LIST

- Very safe 1
- Somewhat safe 2
- Somewhat unsafe 3
- Very unsafe 4
- (DO NOT READ) Don't know 8 B
- (DO NOT READ) Refuse 9 B

Q3 [1,14]

If... Q2.EQ.3,4

Why do you consider your tap water supply to be unsafe?

DO NOT READ LIST; CHECK ALL THAT APPLY; PROMPT FOR MORE THAN ONE ANSWER IF THERE IS ONE

- Your reserve is currently under a drinking/boil water advisory 1
- Your reserve has been under a drinking/boil water advisory in the past 2
- You have heard water on your reserve is unsafe 3
- Appearance 4
- Taste 5
- Odour 6
- There is always talk of bad water quality these days in small communities and reserves, so assume it's bad on my reserve as well (NOTE: to interviewer not related to respondent's community specifically) 7
- I don't have any confidence in the people responsible for the water supply on my reserve 8
- Other (specify)-> AQ3; C350 L2 C75 77 B
- Don't know 99 BX

Q4 [1,8]

If... Q3.EQ.3

Where did you hear that the water supply on your reserve is unsafe?

DO NOT READ; PROMPT FOR AS MANY ANSWERS AS APPLY

Television	1	
Radio	2	
Local newspaper	3	
Community/Band/Township council.....	4	
Government of Canada.....	5	
Health Canada (specifically)	6	
Word of Mouth (family or friends).....	7	
Other (specify)-> AQ4; C350 L2 C75	77	B
Do not recall	98	BX

P5

P5=((Q2==1||Q2==2)?1:2)

even	1
2.....	2

Q5 [1,14]

What would make you feel &P5 safer about your tap water quality?

DO NOT READ

More frequent water quality testing.....	1	
Better procedures for water quality testing.....	2	
More information available on water quality	3	
Better information available on water quality	4	
Fewer/no boil water advisories.....	5	
Knowing why water is under a Water/Boil Advisory when it's announced	6	
Fewer chemicals in the water	7	
Better smell/appearance of the water.....	8	
Other (specify)-> AQ5; C350 L2 C75	77	B
Nothing already feel water is safe, don't need anything else	98	BX

Q8 [1,4]

Please indicate which of the following would make you feel safer about your tap water quality.

READ LIST AND SELECT ALL THAT APPLY INTERVIEWER NOTE: READ FULL LIST AS YES/NO. YOU MUST GET A YES/NO RESPONSE TO EACH CHOICE OPTION

More information available about the quality of tap water on my reserve	1	
More information about water quality testing procedures, frequency of testing on my reserve, and about acceptable levels in tap water	2	
A telephone number or website that I can go to, to be able to check for myself on the current quality of tap water on my reserve	3	
More information on what to do in case of a drinking water advisory	4	
VOLUNTEERED NONE OF THE ABOVE	9	BX

Q9

Would you consider your tap water to be more or less safe to drink than five years ago?
Is it...

READ LIST

Much less safe	1	
Somewhat less safe.....	2	
No change.....	3	
Somewhat safer	4	
Much safer.....	5	
(DO NOT READ) Don't know	8	B
(DO NOT READ) Refuse	9	B

Q10 [1,12]

If... Q9.EQ.1,2

Why do you consider your tap water to be less safe to drink than 5 years ago?

DO NOT READ; TAKE AS MANY AS APPLY; PROMPT FOR MULTIPLE ANSWERS

You get less information about drinking water quality on your reserve than you used to	1	
Your trust in drinking water treatment has gone down	2	
You do not feel well enough informed on water testing procedures on your reserve	3	
You have more information now about how water quality is tested/taken care of on your reserve	4	
There is more talk in the media these days about poor water quality	5	
Someone told you that the tap water on the reserve is poor	6	
Other (specify)-> AQ10; C350 L2 C75.....	77	B
Don't know	99	BX

Q11 [1,8]

If... Q10.EQ.6.OR.Q3.EQ.3

Where did you hear that the tap water is poor?

DO NOT READ; PROMPT FOR AS MANY ANSWERS AS APPLY

Television	1	
Radio	2	
Local newspaper	3	
Community/Band/Township council.....	4	
Government of Canada.....	5	
Health Canada (specifically)	6	
Word of Mouth (family or friends).....	7	
Other (specify)-> AQ11; C350 L2 C75.....	77	B
Do not recall	98	BX

Q12 [1,10]

If... Q9.EQ.4,5

Why do you consider your current tap water to be safer to drink than 5 years ago?

READ LIST; TAKE ALL THAT APPLY AND PROMPT FOR MORE MULTIPLE ANSWERS

You receive more information about drinking water quality on your reserve than you used to.....	1	
There is more of a focus these days on the need for good water quality	2	
Your trust level in drinking water treatment has increased	3	
You feel better informed about water testing procedures on your reserve	4	
Someone told you that the tap water on the reserve is good.....	5	
(DO NOT READ) Other (specify)-> AQ12; C350 L2 C75	77	B
(DO NOT READ) None of the above	98	BX
(DO NOT READ) Don't know	99	BX

Q131 [1,6]

Do you use your tap water for any of the following...

READ LIST

Drinking	1	
Cooking	2	
Brushing teeth.....	3	
Washing food	4	
Food preparation where you are mixing with water, such as baby formula or jello...	5	
Coffee or tea preparation	6	
(DO NOT READ) None of the above	7	BX
(DO NOT READ) Don't know	8	BX
(DO NOT READ) Refuse	9	BX

Q13P [0,0]

If... Q131.EQ.1-6

Is that filtered or unfiltered tap water in each of these cases...

Q13A

If... Q131.EQ.1

Drinking
Filtered 1
Unfiltered..... 2
Don't know 8
Refuse..... 9

Q13B

If... Q131.EQ.2

Cooking
Filtered 1
Unfiltered..... 2
Don't know 8
Refuse..... 9

Q13C

If... Q131.EQ.3

Brushing teeth
Filtered 1
Unfiltered..... 2
Don't know 8
Refuse..... 9

Q13D

If... Q131.EQ.4

Washing food
Filtered 1
Unfiltered..... 2
Don't know 8
Refuse..... 9

Q13E

If... Q131.EQ.5

Food preparation where you are mixing with water, such as baby formula or jello
Filtered 1
Unfiltered..... 2
Don't know 8
Refuse..... 9

Q13F

If... Q131.EQ.6

Coffee or tea preparation

Filtered	1
Unfiltered.....	2
Don't know	8
Refuse.....	9

Q14A

Do you ever use bottled water for anything in your household?

Yes.....	1
No.....	2
Don't know	9

Q14 [1,6]

If... Q14A.EQ.1

Do you use your bottled water for any of the following...

READ LIST

Drinking	1
Cooking	2
Brushing teeth.....	3
Washing food	4
Food preparation where you are mixing with water, such as baby formula or jello...	5
Coffee or tea preparation	6
(DO NOT READ) None of the above	7 BX
(DO NOT READ) Don't know	8 BX
(DO NOT READ) Refuse	9 BX

Q15 [1,13]

If... Q14.EQ.1-6

Why is it that you use bottled water instead of tap water?

DO NOT READ; SELECT ALL THAT APPLY; PROMPT FOR MULTIPLE ANSWERS

Don't trust my tap water	1	
My reserve is currently under a Drinking Water Advisory	2	
My reserve has been under Drinking Water Advisories in the past.....	3	
I prefer the taste/smell of bottled water	4	
I have a greater water supply with bottled water than tap water.....	5	
Bottled water is supposed to be better for you.....	6	
It looks better to be drinking bottled water it's a status symbol.....	7	
It was recommended by Health Canada	8	
Because it is more convenient/easier.....	9	
Other (specify)-> AQ15; C350 L2 C75	77	B
Don't know	99	BX

Q16

What is the main source of your household tap water? Is it...

READ LIST

Piped directly to the home.....	1	
Individual well.....	2	
Cistern (water in a holding tank)	3	
(DO NOT READ) Community Well.....	4	B
(DO NOT READ) Water Pump.....	5	B
(DO NOT READ) Something else (specify)-> AQ16; C350 L2 C75	77	B
(DO NOT READ) No running water.....	9	B
(DO NOT READ) Don't know	7	B
(DO NOT READ) Refuse	8	B

Q17

Do you receive enough household tap water for all your domestic needs?

Yes.....	1
No	2
(DO NOT READ) Don't know	8
(DO NOT READ) Refuse	9

Q18

Has your reserve ever been or are you currently under a Drinking or Boil Water Advisory, as far as you know?

Yes.....	1
No	2
Don't know	9

Q19A

If... Q18.EQ.1

When was the last Drinking or Boil Water Advisory issued on your reserve?

- Currently under one..... 990
- enter number-> AQ19A; N2.0 [1-97]..... 90 N
- weeks 1
- months 2
- years ago..... 3
- Don't know 998

Q19CL

If... Q18.EQ.1

Q19CL =

(((\$Q19A==990)?1:(\$Q19A==1&&\$AQ19A<53)?1:(\$Q19A==2&&\$AQ19A<13)?1:(\$Q19A==3&&\$AQ19A<=1)?1:2)

- Have been under a drinking water advisory within the last 12 months 1
- Else 2

Q32

If... Q19CL.EQ.1

Have you heard a public service announcement on the radio regarding Drinking Water Advisories on your reserve?

- Yes..... 1
- No..... 2
- Don't know 9

Q33A [1,3]

If... Q32.EQ.1

Can you provide additional details about what you might have heard?

- Yes, please specify-> AQ33A; C350 L2 C75 77
- No..... 98 X
- Don't know 99 X

Q33B

If... Q32.EQ.1

Did you find this announcement useful?

Yes.....	1
No.....	2
Don't know	9

Q34

If... Q19CL.EQ.1

Have you seen a door hanger addressing Drinking Water Advisories on your reserve?

Yes.....	1
No.....	2
Don't know	9

Q35A [1,3]

If... Q34.EQ.1

Can you provide additional details about what you might have seen?

Yes, please specify-> AQ35A; C350 L2 C75	77	
No.....	98	X
Don't know	99	X

Q35B

If... Q34.EQ.1

Did you find this door hanger useful?

Yes.....	1
No.....	2
Don't know	9

Q36

If... Q19CL.EQ.1

Have you seen a poster discussing Drinking Water Advisories on your reserve?

Yes.....	1
No.....	2
Don't know	9

Q37A [1,3]

If... Q36.EQ.1

Can you provide additional details about what you might have seen?

- Yes, please specify-> AQ37A; C350 L2 C75 77
- No 98 X
- Don't know 99 X

Q37B

If... Q36.EQ.1

Did you find this poster useful?

- Yes..... 1
- No..... 2
- Don't know 9

Q20

If... Q18.EQ.1

How many times in the last five years has your reserve been under a Drinking Water Advisory?

- enter number of times-> AQ20; N3.0 [0-900] 1
- Have not lived here for 5 years..... 998
- Do not recall 999

Q21

As far as you know, how far is your reserve from the closest major city (in kilometres)?

- kilometres-> AQ21; N4.0 [1-9000] 1
- Don't know 9999

Q22

In what year were you born?

NOTE: ANSWER THE FULL YEAR, I.E. 1977 as "1977"

- Year-> AQ22; N4.0 [1900-1991] 1
- REFUSED 9999

Q23

What is the highest level of education that you have completed?

Grade school.....	1
High school.....	2
Some college/CEGEP.....	3
College/CEGEP.....	4
Some Technical/trade school.....	5
Completed technical/trade school.....	6
Some University.....	7
Undergraduate degree.....	8
Graduate degree (Masters, PhD, Med/Law).....	9
Other (specify)-> AQ23; C150 L1 C75.....	77
DK/NR.....	99

Q24

How many people typically live in your household?

&SKP1

people-> AQ24; N2.0 [1-20].....	1
DK/NR.....	99

Q25

How many of those who typically live in your household are children?

children-> AQ25; N2.0 [0-20].....	1
DK/NR.....	99

CHK1

CHK1=((\$AQ25 > \$AQ24) ? 1 : 2)

# CHILDREN GREATER THAN # PEOPLE IN HOUSEHOLD.....	1
2.....	2

SKP1

If... CHK1.EQ.1

The number of children can not be greater than number of people in the household. Please correct your answer. 1

->Q24

SKP27

If... AQ25.EQ.0.OR.Q25.EQ.99

If no kids, skip to Q27[FR] S'il n'y a pas d'enfants, passer à Q27

1..... 1

->Q27

Q26A

How many are under 2

The number of children = &&AQ25 &SKP2

children-> AQ26A; N2.0 [0-20]..... 1

DK/NR 99

Q26B

How many are 2-5

children-> AQ26B; N2.0 [0-20] 1

DK/NR 99

Q26C

How many are 6-11

children-> AQ26C; N2.0 [0-20] 1

DK/NR 99

Q26D

How many are 12 or older

children-> AQ26D; N2.0 [0-20]..... 1

DK/NR 99

CHK2

If... Q26A.NE.99.AND.Q26B.NE.99.AND.Q26C.NE.99.AND.Q26D.NE.99

CHK2=(((AQ26A+AQ26B+AQ26C+AQ26D)=\$AQ25)?1:2)

1..... 1

OF CHILDREN MUST EQUAL # IN Q25 2

SKP2

If... CHK2.EQ.2

OF CHILDREN MUST EQUAL # IN Q25. Please correct your answer. 1 ->Q26A

Q27

Is your house used as a daycare for children who do not live in your household?

- Yes..... 1
- No..... 2
- DK/NR 9

Q28

How many people over the age of 64 live in your household?

&SKP3

- people-> AQ28; N2.0 [0-20] 1
- DK/NR 99

CHK3

CHK3=((\$AQ28 > \$AQ24) ? 1 : 2)

- # OVER 64 GREATER THAN # IN HOUSEHOLD 1
- 2 2

SKP3

If... CHK3.EQ.1

The number of seniors can not be greater than number of people in the household. Please correct your answer. 1 ->Q28

Q29

Excluding any young children or seniors over the age of 64, is there anyone living in your household who is vulnerable to illness?

- Yes..... 1
- No..... 2
- DK/NR 9

QTHNK

That is all the questions that I have. Thank you for your time.

Completion 1 D

APPENDIX B
GENERAL POPULATION, SMALL
COMMUNITIES SURVEY INSTRUMENT

INTRO

Hello, my name is ... and I work for Ekos Research Associates. We are conducting a survey for the Government of Canada to obtain the views of Canadians living in smaller, rural communities on important health related issues. The survey will only take 8 minutes, and does not involve sales of any kind. Your participation is voluntary and will not affect any services you might receive from the Government of Canada, but it is appreciated as it helps the government to design and deliver better services for all Canadians. The survey is registered with the National Survey Registration System and all of your answers will remain completely confidential. Can I ask if you are at least 18 years old and a regular resident of this household?

- Yes May I begin? 1
- No 2

INTRO2

If... INTRO.EQ.2

Is there someone at home now that I could speak to who is 18 years of age or older and a regular resident of this household?

- Yes Ask to speak to that person and repeat intro..... 1 ->INTRO
- Person not available arrange callback..... 2 ->INTRO
- No, there's nobody else REFUSAL 3 ->THNK2

PRIV [0,0]

This call may be recorded for quality control or training purposes.

SEX

Record gender of respondent

DO NOT ASK

- Male..... 1
- Female 2

LANGI

Record language of correspondence

DO NOT ASK

- English..... 1
- French..... 2

CONF1

Before I start the interview, I'd like to confirm the first three digits of your postal code to help us determine the province and size of community that you live in. What I have listed for your postal code is &&APOSTC.

- Yes this is correct 1
- No this is not correct..... 2

CONF2

If... CONF1.EQ.2

Can you provide me with the first 3 digits of your postal code.

- first 3 digits of the postal code-> ACONF2; S3 L1 C3 1
- DK/NR 9

SCR1

As far as you know, how many people live in your community?

- Less than 500..... 1
- 501 1000..... 2
- 1001 5000..... 3
- More than 5000 -> THANK & TERMINATE; CODE AS IG..... 4 ->THNK2

Q1

On a scale from 1, very bad to 5, very good with 3 meaning neither good nor bad, how would you rate the quality of drinking water in your community?

- 1 Very bad 1
- 2..... 2
- 3 Neither good nor bad..... 3
- 4..... 4
- 5 Very good..... 5
- (DO NOT READ) Don't know 8
- (DO NOT READ) Refuse 9

Q2

How safe or unsafe do you think your tap water supply is? Is it...

READ LIST

Very safe	1	
Somewhat safe.....	2	
Somewhat unsafe.....	3	
Very unsafe.....	4	
(DO NOT READ) Don't know	8	B
(DO NOT READ) Refuse	9	B

Q3 [1,9]

If... Q2.EQ.3,4

Why do you consider your tap water supply to be unsafe?

DO NOT READ LIST; CHECK ALL THAT APPLY; PROMPT FOR MORE THAN ONE ANSWER IF THERE IS ONE

Your community is currently under a drinking/boil water advisory.....	1	
Your community has been under a drinking/boil water advisory in the past.....	2	
You have heard water in your community is unsafe	3	
Appearance	4	
Taste	5	
Odour.....	6	
There is always talk of bad water quality these days in small communities, so assume it's bad in my community as well (NOTE: to interviewer not related to respondent's community specifically)	7	
I don't have any confidence in the people responsible for the water supply in my community.....	8	
Other (specify)-> AQ3; C350 L2 C75	77	B
Don't know	99	BX

Q4 [1,8]

If... Q3.EQ.3

Where did you hear that the water supply in your community is unsafe?

DO NOT READ; PROMPT FOR AS MANY ANSWERS AS APPLY

Television	1	
Radio	2	
Local newspaper.....	3	
Community/Band/Township council.....	4	
Government of Canada.....	5	
Health Canada (specifically)	6	
Word of Mouth (family or friends).....	7	
Other (specify)-> AQ4; C350 L2 C75	77	B
Do not recall	98	BX

P5

P5=((Q2==1||Q2==2)?1:2)

even	1
2.....	2

Q5 [1,9]

What would make you feel &P5 safer about your tap water quality?

DO NOT READ

More frequent water quality testing.....	1	
Better procedures for water quality testing.....	2	
More information available on water quality	3	
Better information available on water quality	4	
Fewer/no boil water advisories.....	5	
Knowing why water is under a Water/Boil Advisory when it's announced	6	
Fewer chemicals in the water	7	
Better smell/appearance of the water.....	8	
Other (specify)-> AQ5; C350 L2 C75.....	77	B
Nothing already feel water is safe, don't need anything else	98	BX

Q8 [1,4]

Please indicate which of the following would make you feel safer about your tap water quality.

READ LIST AND SELECT ALL THAT APPLY INTERVIEWER NOTE: READ FULL LIST AS YES/NO. YOU MUST GET A YES/NO RESPONSE TO EACH CHOICE OPTION

More information available about the quality of tap water in my community	1	
More information about water quality testing procedures, frequency of testing in my community, and about acceptable levels in tap water	2	
A telephone number or website that I can go to, to be able to check for myself on the current quality of tap water in my community.....	3	
More information on what to do in case of a drinking water advisory	4	
VOLUNTEERED NONE OF THE ABOVE	9	BX

Q9

Would you consider your tap water to be more or less safe to drink than five years ago?
Is it...

READ LIST

Much less safe	1	
Somewhat less safe	2	
No change.....	3	
Somewhat safer	4	
Much safer.....	5	
(DO NOT READ) Don't know	8	B
(DO NOT READ) Refuse	9	B

Q10 [1,7]

If... Q9.EQ.1,2

Why do you consider your tap water to be less safe to drink than 5 years ago?

DO NOT READ; TAKE AS MANY AS APPLY; PROMPT FOR MULTIPLE ANSWERS

You get less information about drinking water quality in your community than you used to.....	1	
Your trust in drinking water treatment has gone down	2	
You do not feel well enough informed on water testing procedures in your community.....	3	
You have more information now about how water quality is tested/taken care of in your community	4	
There is more talk in the media these days about poor water quality	5	
Someone told you that the tap water in the community is poor.....	6	
Other (specify)-> AQ10; C350 L2 C75.....	77	B
Don't know	99	BX

Q11 [1,8]

If... Q10.EQ.6.OR.Q3.EQ.3

Where did you hear that the tap water is poor?

DO NOT READ; PROMPT FOR AS MANY ANSWERS AS APPLY

Television	1	
Radio	2	
Local newspaper	3	
Community/Band/Township council.....	4	
Government of Canada.....	5	
Health Canada (specifically)	6	
Word of Mouth (family or friends).....	7	
Other (specify)-> AQ11; C350 L2 C75.....	77	B
Do not recall	98	BX

Q12 [1,6]

If... Q9.EQ.4,5

Why do you consider your current tap water to be safer to drink than 5 years ago?

READ LIST; TAKE ALL THAT APPLY AND PROMPT FOR MORE MULTIPLE ANSWERS

- You receive more information about drinking water quality in your community than you used to..... 1
- There is more of a focus these days on the need for good water quality 2
- Your trust level in drinking water treatment has increased 3
- You feel better informed about water testing procedures in your community 4
- Someone told you that the tap water in the community is good..... 5
- (DO NOT READ) Other (specify)-> AQ12; C350 L2 C75 77 B
- (DO NOT READ) None of the above 98 BX
- (DO NOT READ) Don't know 99 BX

Q131 [1,6]

Do you use your tap water for any of the following...

READ LIST

- Drinking 1
- Cooking 2
- Brushing teeth..... 3
- Washing food 4
- Food preparation where you are mixing with water, such as baby formula or jello... 5
- Coffee or tea preparation 6
- (DO NOT READ) None of the above 7 BX
- (DO NOT READ) Don't know 8 BX
- (DO NOT READ) Refuse 9 BX

Q13P [0,0]

If... Q131.EQ.1-6

Is that filtered or unfiltered tap water in each of these cases...

Q13A

If... Q131.EQ.1

- Drinking**
- Filtered 1
- Unfiltered..... 2
- Don't know 8
- Refuse..... 9

Q13B

If... Q131.EQ.2

Cooking

Filtered	1
Unfiltered.....	2
Don't know	8
Refuse.....	9

Q13C

If... Q131.EQ.3

Brushing teeth

Filtered	1
Unfiltered.....	2
Don't know	8
Refuse.....	9

Q13D

If... Q131.EQ.4

Washing food

Filtered	1
Unfiltered.....	2
Don't know	8
Refuse.....	9

Q13E

If... Q131.EQ.5

Food preparation where you are mixing with water, such as baby formula or jello

Filtered	1
Unfiltered.....	2
Don't know	8
Refuse.....	9

Q13F

If... Q131.EQ.6

Coffee or tea preparation

Filtered	1
Unfiltered.....	2
Don't know	8
Refuse.....	9

Q14A

Do you ever use bottled water for anything in your household?

- Yes..... 1
- No..... 2
- Don't know 9

Q14 [1,6]

If.. Q14A.EQ.1

Do you use your bottled water for any of the following...

READ LIST

- Drinking 1
- Cooking 2
- Brushing teeth..... 3
- Washing food 4
- Food preparation where you are mixing with water, such as baby formula or jello... 5
- Coffee or tea preparation 6
- (DO NOT READ) None of the above 7 BX
- (DO NOT READ) Don't know 8 BX
- (DO NOT READ) Refuse 9 BX

Q15 [1,10]

If.. Q14.EQ.1-6

Why is it that you use bottled water instead of tap water?

DO NOT READ; SELECT ALL THAT APPLY; PROMPT FOR MULTIPLE ANSWERS

- Don't trust my tap water 1
- My community is currently under a Drinking Water Advisory 2
- My community has been under Drinking Water Advisories in the past 3
- I prefer the taste/smell of bottled water 4
- I have a greater water supply with bottled water than tap water..... 5
- Bottled water is supposed to be better for you..... 6
- It looks better to be drinking bottled water it's a status symbol..... 7
- It was recommended by Health Canada 8
- Because it is more convenient/easier 9
- Other (specify)-> AQ15; C350 L2 C75 77 B
- Don't know 99 BX

Q16

What is the main source of your household tap water? Is it...

READ LIST

Piped directly to the home.....	1	
Individual well.....	2	
Cistern (water in a holding tank).....	3	
(DO NOT READ) Community Well.....	4	B
(DO NOT READ) Water Pump.....	5	B
(DO NOT READ) Something else (specify)-> AQ16; C350 L2 C75	77	B
(DO NOT READ) No running water.....	9	B
(DO NOT READ) Don't know	7	B
(DO NOT READ) Refuse	8	B

Q17

Do you receive enough household tap water for all your domestic needs?

Yes.....	1	
No.....	2	
(DO NOT READ) Don't know	8	
(DO NOT READ) Refuse	9	

Q18

Has your community ever been or are you currently under a Drinking or Boil Water Advisory, as far as you know?

Yes.....	1	
No.....	2	
Don't know	9	

Q19A

If... Q18.EQ.1

When was the last Drinking or Boil Water Advisory issued in your community?

enter number-> AQ19A; N2.0 [1-97].....	90	N
weeks	1	
months	2	
years ago.....	3	
Don't know	998	
Refuse.....	999	

Q20

If... Q18.EQ.1

How many times in the last five years has your community been under a Drinking Water Advisory?

- enter number of times-> AQ20; N3.0 [1-900]..... 1
- Have not lived here for 5 years..... 998
- Do not recall 999

Q21

As far as you know, how far is your community from the closest major city (in kilometres)?

- kilometres-> AQ21; N4.0 [1-9000]..... 1
- Don't know 9999

Q22

In what year were you born?

NOTE: ANSWER THE FULL YEAR, I.E. 1977 as "1977"

- Year-> AQ22; N4.0 [1900-1991] 1
- REFUSED 9999

Q23

What is the highest level of education that you have completed?

- Grade school..... 1
- High school..... 2
- Some college/CEGEP..... 3
- College/CEGEP..... 4
- Some Technical/trade school..... 5
- Completed technical/trade school..... 6
- Some University 7
- Undergraduate degree..... 8
- Graduate degree (Masters, PhD, Med/Law) 9
- Other (specify)-> AQ23; C150 L1 C75..... 77
- DK/NR 99

Q24

How many people typically live in your household?

&SKP1

people-> AQ24; N2.0 [1-20] 1
DK/NR 99

Q25

How many of those who typically live in your household are children?

children-> AQ25; N2.0 [0-20]..... 1
DK/NR 99

CHK1

CHK1=((\$AQ25 > \$AQ24) ? 1 : 2)

CHILDREN GREATER THAN # PEOPLE IN HOUSEHOLD..... 1
2..... 2

SKP1

If... CHK1.EQ.1

The number of children can not be greater than number of people in the household. Please correct your answer. 1 ->Q24

SKP27

If... AQ25.EQ.0.OR.Q25.EQ.99

If no kids, skip to Q27

1 1 ->Q27

Q26A

How many are under 2

&SKP2

children-> AQ26A; N2.0 [0-20]..... 1
DK/NR 99

Q26B

How many are 2-5

children-> AQ26B; N2.0 [0-20] 1
DK/NR 99

Q26C

How many are 6-11

children-> AQ26C; N2.0 [0-20] 1
DK/NR 99

Q26D

How many are 12 or older

children-> AQ26D; N2.0 [0-20] 1
DK/NR 99

CHK2

CHK2=(((AQ26A+AQ26B+AQ26C+AQ26D)==AQ25)?1:2)

1 1
OF CHILDREN MUST EQUAL # IN Q25 2

SKP2

If... CHK2.EQ.2

OF CHILDREN MUST EQUAL # IN Q25. Please correct your answer. 1 ->Q26A

Q27

Is your house used as a daycare for children who do not live in your household?

Yes..... 1
No..... 2
DK/NR 9

Q28

How many people over the age of 64 live in your household?

&SKP3
people-> AQ28; N2.0 [0-20] 1
DK/NR 99

CHK3

CHK3=((\$AQ28 > \$AQ24) ? 1 : 2)
OVER 64 GREATER THAN # IN HOUSEHOLD 1
2 2

SKP3

If... CHK3.EQ.1

The number of seniors can not be greater than number of people in the household. Please correct your answer. 1 ->Q28

Q29

Excluding any young children or seniors over the age of 64, is there anyone living in your household who is vulnerable to illness?

Yes..... 1
No..... 2
DK/NR 9

Q30

Do you consider yourself to be an Aboriginal person?

Yes..... 1
No..... 2
DK/NR 9

Q31

If... Q30.EQ.1

Do you live on a reserve for at least 6 months of the year?

Yes..... 1
No..... 2
DK/NR 9

QTHNK

That is all the questions that I have. Thank you for your time.

Completion..... 1 D

APPENDIX C

RESPONSE RATES

Call Results and Response Rates Table – General Public

Total Numbers Accepted		5099
Total out of scope		809
Numbers not in service	661	
Fax or modem or business	129	
Duplicates	3	
Numbers blocked by Phone companies	16	
Unresolved		1806
Busy , no answers, Answering machines	1806	
Retired, called 10 times without success	0	
In-scope Non-responding		1665
Other	11	
Incapable(ill, deceased, deaf)	17	
Refusals	1625	
Break offs	12	
In-scope Responding units		819
Completes	687	
Ineligible.	80	
Language disqualified	28	
Quota Filled	10	
Response Rate		19.1%

Average Length 8.0 minutes

Duration: March 17th until March 29th.

Call Results and Response Rates Table – First Nations Residents on Reserves

Call disposition table			
Final disposition	#	Totals	# of calls
A Invalid numbers		4358	3336
BC - Blocked by Bell	23		41
BU - Business/Fax /Modem	490		698
DU - Duplicate Number	5		18
NF - Invalid Number	3840		2579
B Unresolved		4708	15642
AM - Callback in 2 hrs	3104		11586
AP - Callback - Specific time/date	31		86
EV - Evening Call Request	0		0
FR - French Household	7		32
HO - Head Office - Unreachable 1-800#'s	0		0
IC - Incomplete	0		0
NA - Callback in 12 hrs	1552		3875
ON - Will go Online to Complete Survey	0		0
RFAP - 1st Refusal - AP set	4		26
RH - Referred to Head Office	0		0
RT - Number Retired	0		0
SA - Soft AP - Date/Time Required	0		0
X - Exit without Dialing	10		37
D Ineligible		2221	3993
IG - Ineligible	2096		3810
LN - Language Barrier	104		159
QF - Quota Filled	21		24
E Non-responding, eligible		4674	11184
IR - Incomplete Refusals	30		66
R2 - Final Refusal	1001		3538
RFNA - 1st Refusal - NA/AM	629		3857
RF - Refusal	2984		3721
UN - Unavailable within Project Timeframe	30		2
F Completed interviews		715	1340
Complete	715		1340
TOTALS	16676	16676	35495

Response rate 23.8%

Average Length 10.0 minutes

Duration: April 8th until April 29th