

PWGSC Contract # HT372-163682/001/CY

POR Registration # 050-16

HC POR: 16-07

Contract Award Date: October 20, 2016

Delivery Date: March 29, 2017



Chemicals Management and Environmental Health Issues Survey and Focus Groups

FINAL REPORT

Ce rapport est également disponible en français

Submitted to:

Health Canada

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March 2017

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SUMMARY

Methodology

EKOS Research Associates conducted a national survey of 2,100 residents of Canada aged 18 and older. The survey was conducted online among members of EKOS' *Probit* panel, a randomly selected panel of Canadian households in January 2017. The sample included an oversample of parents with children six years of age or younger (n=573). Weighting was applied to the sample to ensure that the total sample of n=2,100 reflects the characteristics of the general public by region, age, gender and parental status. The total sample of n=2,100 carries a margin of error of +/-2.1 percentage points, calculated at a 95 per cent confidence interval. The targeted sample of parents with children six years of age and younger carries a margin of error of 4.1 percentage points at a 95 per cent confidence interval.

In the second component, ten focus groups were held with a subset of respondents from the survey to further discuss and contextualize findings. Two groups were held in English in Halifax and three were held in each of Toronto and Calgary, in addition to two individual in-person interviews in Calgary. Two groups were also held in French in Montreal.

Findings

Perceived Risk

- **Most Canadians feel that their own or their family's health is impacted by common environmental factors in and around their home.** About one-third feel they are impacted a great deal, while another two in five say they are impacted a fair amount.
- **Two-thirds of Canadians feel that household chemicals and pesticides pose a risk to their health or family's health.** Half feel that substances such as oil, turpentine, paint, and paint thinners pose a risk. Roughly two in five expressed concerns over air fresheners and scented candles, building materials and renovation supplies, the lead in applied paint, or improper disposal of pharmaceutical drugs. Focus group participants likewise perceive health risks of household products such as household cleaners, use and storage of pesticides, and various plastics in the home. **Two-thirds of Canadians feel that air quality or mould and humidity pose a risk to their health or family's health.** Just over half feel that water quality poses a risk. Roughly two in five think that carbon monoxide, food safety, or cigarette smoke are a risk to their health. When asked to select the single greatest factor of concern, **one-third of Canadians said they are most concerned about air quality, and nearly as many are concerned about water quality.**
- **About half of Canadians feel that lead, asbestos, and mercury pose a risk to human health.** Two in five indicated that arsenic, bisphenol A/BPA, formaldehyde, or Dioxin/PCB's

pose a risk to health. Focus group participants substantiated that they are most concerned about the factors that are unknown or they feel they have less control over (asbestos, mould, prior applications of paint, and radon).

- **About six in ten Canadians are concerned that exposure to chemical substances in their home can potentially lead to breathing problems or cancer.** Two in five are concerned that chemical exposure will result in allergies.

Taking Action

- **Most Canadians (84 per cent) agree that it is possible to take steps to prevent or lower health risks posed by common household products. Three-quarters agree that how consumers use or dispose of common household products is a large part of this risk.** Two-thirds agree that it is possible to test for some chemicals in the home that pose a health risk. However, just half feel that chemicals in common household products pose a significant risk no matter how they are used or disposed of by consumers. Focus group participants perceive that some risks are within their control to mitigate and that informing themselves is a primary action to preventing or lowering health risks.
- Just over three-quarters say it is likely that if they had information about possible health risks around their home, along with steps to take, they would make changes to reduce the risk. Of the one in five who say they would not, the primary reasons put forward by about one in six to one in ten are that the steps would likely be too expensive, they do not feel it is a big enough problem, that the information is often contradictory or confusing, or that they rent their house and can not control the changes. Some focus group participants believe it is their own responsibility to inform themselves; some feel that they are limited by not having enough available time to research information, source “safer” products, are confused or overwhelmed by information.
- Most Canadians are either confident (40 per cent) or moderately confident (41 per cent) that they know what steps to take to prevent or reduce health risks to their family from environmental factors in and around their home. Focus group participants who feel not well enough informed tend to also feel there are factors which pose a risk no matter what they do or are most concerned about factors in the environment.
- In terms of actions taken to mitigate these risks, **three-quarters of Canadians open windows and ensure proper ventilation or maintain a smoke free home.** Over half say they properly dispose of unused or expired pharmaceuticals, read all instructions on product labels, follow those instructions, use protective equipment, or use products with fewer chemicals. Focus group participants also noted preventative measures such as properly storing household products, proper use of household products, and ardent selection of products brought into the home.
- **Almost nine in ten pointed to their health and the health of their family as a primary motivator for taking steps to reduce risks.** Two-thirds said they take action because it is

good for the environment. Overwhelmingly, focus group participants cited health and the health of their family, particularly children, as the reasons for taking steps to reduce risk from environmental factors and household products. Many also said that environmental concerns are a benefit to taking steps.

Looking for Information

- Just over half of Canadians say that they have looked for information on what steps can be taken to prevent or reduce risk from environmental contaminants in and around the home. Of those who have looked for information, most feel that the information found was helpful (44 per cent) or moderately helpful (41 per cent). The vast majority of these respondents has taken steps (40 per cent) or partially taken some steps (48 per cent) to reduce risk as a result of information heard or read. Many focus group participants can find the information they are looking for, but others said that they are not sure where to find good information, or that information is not relevant, or difficult to decipher.
- When asked to identify any barriers that may keep them from taking steps to reduce health risks in the home, **two in five Canadians said that it is too expensive to take these steps**. About one-third indicated that they feel a lack of control to make certain changes, the information is not available when making decisions, or the information is confusing or complicated. Many focus group participants said that cost is a barrier to taking action in some cases. Environmental products tend to have higher prices that add up over time, and renovations that involve remediation are also a significant cost. However, some participants said that many actions require no cost (proper use and storage of household products) or may cost less than traditional household products (using “old fashioned” cleaning remedies).
- **Fewer than one in six say they always look for information about what a product contains before purchasing**, while just over one in three indicated they read product information before purchase most of the time. One-third do this sometimes and fourteen per cent say they almost never read product information.

Information of Interest

- Respondents showed a keen interest in staying informed on how best to protect their health around the home, with two-thirds indicating they would like to learn more on the subject.
- In terms of how it relates to protecting their health, **Canadians expressed a strong interest in learning more about household chemicals (65 per cent), pesticides and herbicides (52 per cent) and personal care products (51 per cent)**. Two in five would like to hear more about building materials, as well as products that emit fragrances. Focus group participants suggested that there is a clear need for more straightforward, easy to use and relevant information, and that this information needs to be organized and available on a well publicized site so that everyone knows where to access it.

- **Air and water quality topped the list of environmental factors about which Canadians would like to learn more**, selected by 66 per cent and 60 per cent of respondents, respectively. Half expressed interest in mould and humidity, and two-fifths would be interested in receiving information on wireless devices.
- **Online search engines rank as the most popular medium for obtaining information on household health risks, with three-quarters of respondents selecting it as a key outlet.** Six in ten, meanwhile, indicated that they would consult the Health Canada website. Half would simply check the product label, while four in ten would seek guidance from a health professional.
- **By a wide margin, websites and product labels emerged as the two most popular formats for accessing information on household health risks**, selected by 63 per cent and 54 per cent of respondents, respectively. About one in three expressed a preference for pamphlets and brochures or a product search engine.
- **Three-quarters of respondents expressed a high degree of trust in Health Canada and health care professionals, while seven in ten have faith in not-for-profit health groups.** Just over half, meanwhile, would rate non-profit environmental groups as trustworthy. Respondents are considerably more cautious when it comes to manufacturers, retailers, and building contractors, with as many respondents rating these groups as less trustworthy. Sources that are trusted and reputable carry considerable weight for many focus group participants. Government is considered to be a trusted source according to most focus group participants, followed by health professionals. The use of many sources to corroborate information is also a key approach for some.
- **Results expressed only a moderate level of interest in a mobile app that offers guidance on how to mitigate potential risks from household chemicals.** Two-fifths of respondents said they would be highly interested, although just over one-third expressed little to no interest. One in five said that they would be moderately interested. Similarly, interest expressed by focus group participants in a mobile app that provides product safety information was moderate. Some speculated they would use this occasionally to check on products, typically while shopping, most said that it would be of limited value.

Parents of Children Six or Younger

- **Parents of children six years of age or younger are more concerned than many about the potential risk to health from environmental factors in and around their home.** In particular, they have higher levels of concern for household chemicals, as well as personal care products and unused pharmaceuticals. Air quality and mould are also key concerns, and water quality and perceived risks from wireless devices are bigger concerns for this segment than they are for many others.

- Parents are largely concerned about the impacts on the health of children, along with concerns for risks of cancer and respiratory problems more generally.
- Most parents report taking at least some steps to reduce the risks to health from environmental factors, including opening windows when chemicals are used, maintaining a smoke-free home, using fewer chemicals and increasing the frequency of cleaning. As with other younger Canadians, however, they are less likely to look for information, read labels and follow instructions, use protective equipment, or properly dispose of unused or expired pharmaceuticals than some others.
- As with other Canadians, six in ten have looked for information on steps they can take to reduce risk, although a sizable proportion have not. While many who have sought information describe it as helpful, some expressed a lack of confidence in the information, or found it to be insufficient, impractical, confusing or contradictory, or hard to find. The most useful information was said to provide descriptions of how to dispose of products safely and useful methods of storing dangerous products.
- When describing limitations of the information or in their own ability to take steps, **expense was given as a key reason, more often cited by parents of young children than reported by others.** Some also said that information is confusing, too technical, or features competing messaging, as well as being hard to find, and time consuming to find and read.
- It is not surprising then that parents expressed a strong interest in having more information, particularly on issues that concern them the most (e.g., air quality, mould, household chemicals). Focus group participants also clearly articulated a desire for sources of clear, relevant, and validated information from trustworthy and unbiased sources.
- **Along with online search engines in general, parents expressed a strong preference for obtaining information from Health Canada and from health professionals,** as two key trusted sources, along with non-profit health groups.
- Although some indicated an interest in a mobile app with relevant information that they could use before and during shopping trips, some others in the survey and in focus groups said that websites and product labels are the way in which they would most like to take in information.

Feedback on Communications Materials

- Focus group participants were presented with a list of six sample calls to action as examples of what a Health Canada public education campaign might target. Participants agreed that having a list of straightforward actions that could reduce the risks to health in and around the home is useful for the public
- Three general concepts of possible approaches for a campaign were also presented.
 - ◆ Concept 1: Care for your home health as you would your own health. Some saw this as a natural extension to caring for your health and the

only concept that immediately linked to the home. However, the concept was generally viewed as being complicated in wording and the point not instantly obvious. Some felt that the concepts may be about general house repairs or that the idea that they “are where they live” off-putting when they do not want to be judged by where they live.

- ◇ Concept 2: First Aid Kit for your home. This concept was most positively received as the concept that immediately instilled the idea of a list of actions to take. However, the wording of “first aid” was not supported because a first aid kit already exists in the home and has a specific purpose, and because a first aid kit is a reactive measure when something has gone wrong. Participants generally saw the calls to action as proactive, therefore, not congruent with applying first aid. Phrases such as tool kit or tool box and check lists were seen as better variations of the concept.
- ◇ Concept 3: Your health is in your hands. This concept was favoured the least. The idea of personal responsibility is seen as acceptable; although, empowerment is seen as a tired and overused concept for many or adds undue pressure and guilt. Nearly universally, the superhero reference was received poorly as an overdone concept.

The total contract value for the POR project is \$95,730 (including HST).

Supplier Name: EKOS Research Associates
PWGSC Contract #HT372-163682/001/CY
Contract Award Date: October 20, 2016
To obtain more information on this study, please e-mail por-rop@hc-sc.gc.ca

This certification is to be submitted with the final report submitted to the Project Authority.

I hereby certify as Senior Officer of EKOS RESEARCH ASSOCIATES INC. that the deliverables fully comply with the Government of Canada political neutrality requirements outlined in the *Communications Policy* of the Government of Canada and Procedures for Planning and Contracting Public Opinion Research. Specifically, the deliverables do not include information on electoral voting intentions, political party preferences, standings with the electorate or ratings of the performance of a political party or its leader.

Signed:



Susan Galley, Senior Vice President
EKOS Research Associates Inc.

1. INTRODUCTION

The Chemicals Management Plan (CMP) was created to address a need to reduce risks Canadians may face as a result of harmful chemicals in their homes and environment. It is the combined effort of Health Canada and Environment and Climate Change Canada. The plan expands on previous initiatives by assessing the potential risk of chemicals used in Canada and taking action when they are found to be harmful. A key aspect of this is to ensure public awareness of risks and appropriate responses. This is accomplished through making environmental health guides available to Canadians, and through activities such as awareness and learning events, public distribution of information, and social media promotion. The result is a myriad of avenues through which Canadians can be exposed to this vital health messaging; however, a renewed public outreach strategy must be created to provide simple messaging and updated tactics based on Canadians' information needs.

The current public opinion research explores behavioural and information seeking trends of Canadians related to chemicals and environmental impact. The information will be used by Health Canada in the development of a unified five-year public outreach strategy aimed at prompting Canadians to avoid or minimize risk from harmful household materials. Paramount to this new strategy is an informative social marketing campaign informing and motivating Canadians to protect their health and the health of those close to them by appropriately responding to substances found to be of concern in the home.

The objectives of the research are as follows:

- Assess target audience's knowledge of environmental factors;
- Determine which environmental factors are of concern to Canadians;
- Identify Canadians' behaviours related to current environmental health;
- Identify motivators and barriers to taking actions that reduce the health risks from possible contaminants in the home;
- Explore the methods through which Canadians prefer to receive their information on health risks from possible contaminants in the home; and
- Compare results with the baseline survey measured in 2009, where possible, given change in methodology from telephone administration in 2009 to online administration in 2017.

1.1 METHODOLOGY

a) Survey

EKOS Research Associates conducted a national survey of 2,100 residents of Canada aged 18 and older. The survey was conducted online among members of EKOS' *Probit* panel, a randomly recruited panel of Canadian households. The field dates for this survey were January 11-23, 2017. The average interview length to complete the questionnaire was 18 minutes.

The sample included a targeted segment of parents with children six years of age or younger (n=573). An oversample was collected in this segment to ensure sufficient cases in the analysis of results for this group. Weighting was applied to the sample to ensure that the total sample of n=2,100 reflects the characteristics of the general public by region, age, gender and parental status.

The *Probit* panel consists of randomly selected Canadians identified via telephone-based RDD dialling (they do not opt themselves into the panel), with a blended landline and cellphone sample frame providing equal probability sampling and full coverage of the Canadian population with access to a telephone. Because of this approach, the samples derived from the *Probit* panel are considered probabilistic in nature. On this basis, the total sample of n=2,100 carries a margin of error of +/-2.1 percentage points, calculated at a 95 per cent confidence interval. The targeted sample of parents with children six or younger carries a margin of error of 4.1 percentage points at a 95 per cent confidence interval.

The survey instrument was pre-tested with 71 cases (40 in English and 31 in French) to ensure that the data was being accurately recorded and that the questions were properly understood by respondents.

Respondents were invited to complete the survey via a bilingual e-mail invitation message sent to the randomly selected sample frame. The questionnaire was programmed online on a secure webserver accessible only to individuals with a valid PIN. Respondents were offered to complete the survey in the official language of their choice, as well as through an accessible version which can be read using screen reading software.

To reach the full sample of 2,100, a total of 13,105 panel members were randomly selected, using a stratified approach (to reach the target group and ensure sufficient sample in smaller geographic regions with smaller populations). The participation rate for the survey was 16 per cent. This is a typical participation rate for this kind of survey.

b) Characteristics of the Survey Sample

Following are characteristics of the sample of 2,100 respondents in the survey.

Table 1.1: Sample Characteristics

	Total
<i>n=</i>	2100
<i>What is the language you speak most often at home?</i>	
English	78%
French	23%
<i>What is the highest level of formal education that you have completed?</i>	
High School or less	24%
Registered Apprenticeship or other trades certificate or diploma	6%
College, CEGEP or other non-university certificate or diploma	22%
University certificate or diploma below bachelor's level	9%
Bachelor's degree	29%
Post graduate degree above bachelor's level	18%
<i>Which of the following categories best describes your total household income? That is, the total income of all persons in your household combined, before taxes?</i>	
Under \$40,000	20%
\$40,000 to just under \$60,000	14%
\$60,000 to just under \$80,000	12%
\$80,000 to just under \$100,000	12%
\$100,000 to just under \$150,000	19%
\$150,000 and above	12%
Refused	11%
<i>Were you born in Canada?</i>	
Yes	86%
No	14%
<i>Do you own or rent your home?</i>	
Own	72%
Rent	26%
<i>Are you the parent or legal guardian of any children currently living in the household?</i>	
Yes	42%
No	57%
<i>What are the ages of children in the home?</i>	
Under 6	65%
6-12	37%
13-15	14%
16-18	12%
19 or older	14%

	Total
<i>Are there individuals living in your home who are 65 years of age or older?</i>	
Yes	24%
No	76%
<i>Are there individuals living in your home who are vulnerable to health risks?(e.g., children and pregnant women, Indigenous peoples, seniors)?</i>	
Yes	24%
No	73%
Region (unweighted)	
British Columbia and Yukon	14%
Alberta and Northwest Territories	9%
Saskatchewan and Manitoba	10%
Ontario	35%
Quebec and Nunavut	21%
Atlantic	11%
Age (unweighted)	
18-34	24%
35-44	21%
45-54	18%
55-64	16%
65+	18%
Gender (unweighted)	
Male	48%
Female	52%

In terms of possible response bias, the sample over represents those with post secondary education, including 56 per cent with a university level of education compared with 23 per cent in the population, and under represents those with high school/elementary or college levels of education. There are fewer Canadians born outside of Canada represented in the sample (14 per cent) than found in the population (25 per cent).

Note to readers

Overall results are presented in text, charts, and tables. Bulleted text is used to describe specific segments of the sample if they are statistically and substantively different from the overall results for the entire sample (i.e., at least five per cent or more from the overall mean in any given subgroup). If differences are not noted in the report it can be assumed that they are either not statistically significant in their variation from the overall result or that the difference was judged to be too small to be noteworthy.

Readers should note that results for the proportion of respondents in the sample that either said “don’t know” or did not provide a response may not be indicated in the graphic representation of the results. Results may also not total to 100 per cent due to rounding.

c) Focus Groups

In order to add further context and understanding to the survey results, nine focus groups were held in four Canadian cities (Montreal (2), Toronto (3), Halifax (2), and Calgary (3), as well as two key informant interviews held in Calgary. Participants were recruited from the EKOS in-house randomly generated panel, *Probit* (recruitment screener can be found in Appendix C). Half of the discussions targeted recruitment on parents of young children (6 years old or younger), while the other included parents of older children and other Canadians. Groups were stratified to ensure a balance of men and women and representation of a variety of adult age cohorts. In total, 63 individuals participated in the discussions, of the 85 recruited. A focus group guide (provided in Appendix D) was developed by EKOS in consultation with the client. Discussions centred on a number of issues common to the survey: concerns about real and perceived health risks in and around the home, steps taken to reduce risk, sources of information and assessment of quality and trustworthiness of information available, as well as views about how well informed participants feel and corresponding information needs. Participants were also asked to provide feedback on three concepts under consideration in the development of a public education campaign. Most discussions were held in English, with the exception of the two focus groups held in Montreal, which were held in French.

Each focus group was 90 minutes in duration. Groups were held in professional focus group facilities. Refreshments were provided and participants were provided \$75 for their attendance. Video or audio recordings, researchers' notes and observations from the focus groups formed the basis for analysis and reporting of results.

It should be kept in mind when reading this report that findings from the focus groups are qualitative in nature, designed to provide a richer context rather than to measure percentages of the target population. These results are not intended to be used to estimate the numeric proportion or number of individuals in the population who hold a particular opinion as they are not statistically projectable.

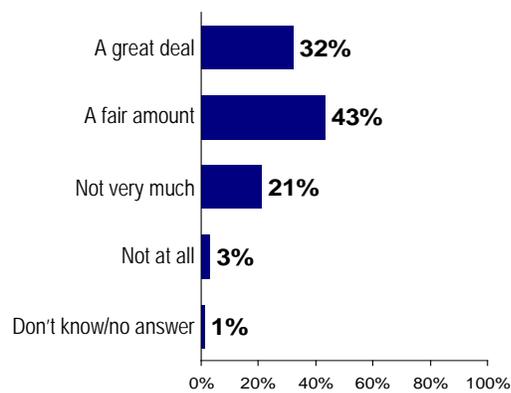
2. PERCEIVED RISK

2.1 PERCEIVED HEALTH RISK

Most Canadians feel that common environmental factors in and around their home have an impact on their own or their family's health. About one-third (32 per cent) said they believe there is a great deal of impact, while another two in five (43 per cent) say they are impacted a fair amount. Conversely, one in five (21 per cent) do not perceive that environmental factors in the home have very much of an impact, and a few (three per cent) feel that the impact is non-existent.

Perceived Health Risk

"How much, if at all, do you believe you and/or your family's health is impacted by common environmental factors in and around your home?"



- Residents of Quebec are more apt than those in other regions to believe their health is impacted by household environmental factors. Those in British Columbia and Alberta are less likely than other residents to feel their health is impacted by environmental factors in the home.
- Women, Canadians with a university education, and those aged 18-34 are all more likely to feel there is a great deal of impact.
- Parents, particularly with children six years old or younger, are also more likely to report a great deal of impact from environmental factors in the home.

- Those who rent their home are more apt than those who own to believe their health is impacted a great deal.

a) Focus Groups

When focus group participants were asked about how or when they started thinking about the health risks of things in and around their home many said that there is no “starting point” that they can point to in terms of awareness of these issues. They described the gradual and evolving process of becoming more aware of the impact of environment on health as society is paying more attention about these two issues over time. “Awareness is building in layers for all of us”. Many said that as society is slowly becoming more aware, it is becoming more commonplace to be concerned about health risks. Some also said that they have always been conscious of these issues, largely from their upbringing at home (from parents who were more conscious and concerned about impact on health and healthy lifestyle choices).

For others, having children had a large impact on the attention that they pay to these issues. “You start hearing about things like whether or not to vaccinate”, and health risks and concerns start to take on new meaning and importance.

Similarly, some described getting older and feeling more vulnerable because of health concerns as the impetus to start thinking about these issues. Related to this, people in the home with allergies or environmental sensitivities have some households paying more attention and taking greater care with choices of products, what comes into the home, and how cleaning and renovations are performed.

Many said that you simply “hear things”. There are conversations that happen with people you know (e.g., other parents, colleagues) that start you thinking. News and other content in the media (e.g., talk shows, consumer report shows) increase your attention, not just to the immediate topic, but to other similar health issues. Kids also come home with information, according to some parents, that also starts conversations and gets you thinking.

2.2 PERCEIVED RISK OF HOUSEHOLD PRODUCTS

Selected from a list provided, two-thirds of Canadians feel that household chemicals (66 per cent) and pesticides (64 per cent) pose a risk to their health or family's health. This seems a marginal increase from 2016 when 61 per cent felt the same¹. Half (51 per cent) feel that substances such as oil, turpentine, paint, and paint thinners pose a risk. Roughly two in five think that air fresheners and scented candles (43 per cent), building materials and renovation supplies (43 per cent), the lead in applied paint (42 per cent), or improper disposal of pharmaceutical drugs (40 per cent) are a risk to their health. About one-third perceive a risk in personal care products (36 per cent) or unused pharmaceutical drugs (36 per cent). One-quarter are concerned about consumer product safety (25 per cent), while one in five feel that materials used for hobbies or crafts (18 per cent) are a risk to their health. Only one in ten (11 per cent) feel that natural health products are among the factors in their home that pose a risk to their health.

Perceived Risk of Household Products

"What factors in and around your home do you think pose a risk to your health and the health your family?" (Prompted from list, select all that apply)



- Residents living in Quebec (and therefore also Francophone Canadians) are more apt than those in other regions to be concerned about the risk of most factors.
- Canadians age 18-54 and women are more apt than their counterparts to be concerned about the risk of most factors. More specifically, those ages 18-34 are more concerned about

¹ Canadian Environmental Health Habits and Behaviours Survey, TNS Canada, 2016.

personal care products and consumer product safety. Women are more concerned than men about household chemicals, air fresheners/sprays and scented candles, building materials and lead-based paint.

- Parents, particularly parents of children six or younger, are more concerned than others about household chemicals, personal care products, unused pharmaceuticals and consumer product safety.

2.3 PERCEIVED RISK OF HOUSEHOLD ENVIRONMENTAL FACTORS

Turning to the risks presented by household environmental factors, two-thirds of Canadians feel that air quality (66 per cent) or mould and humidity (60 per cent) pose a risk to their health or family's health (again based on a list provided). Over one-half feel that water quality (55 per cent) poses a risk. Roughly two in five think that carbon monoxide (44 per cent), food safety (41 per cent), or cigarette smoke (41 per cent) are a risk to their health. About one-third perceive a risk in contaminated soil (32 per cent), wireless devices (32 per cent), radiation (31 per cent), or garbage and disposal of products (31 per cent). One-quarter are concerned about radon gas (28 per cent) or excessive noise (26 per cent). Finally, one in five (18 per cent) include wood smoke among the factors in their home that pose a risk to their health.

Perceived Risk of Household Environmental Factors

“What factors in and around your home do you think pose a risk to your health and the health your family?” (Prompted from list, select all that apply)



Only items with 5% or more shown in chart



n=2100

Health Canada: Chemicals Management Survey, 2017

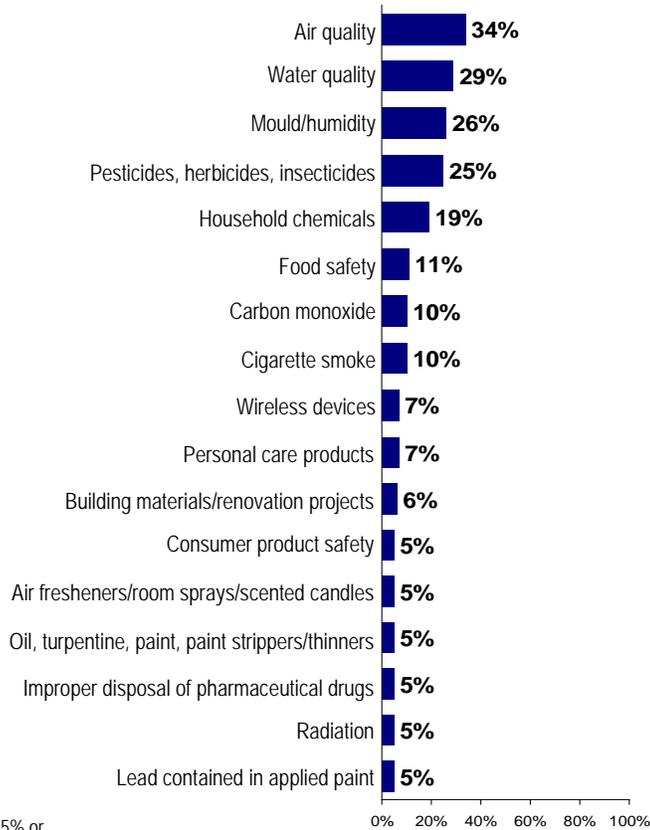
- Those in Quebec (and Francophone Canadians) are more apt than residents of other regions to be concerned about the risk of most factors.
- Canadians age 18-54 and women are more apt than their counterparts to be concerned about the risk of most factors. More specifically, those age 18-34 are more concerned about cigarette smoke and garbage. Those in the 35-54 age group are more likely than other age groups to perceive a risk in air quality, radon gas, wireless devices, and mould. Women are more concerned than men about carbon monoxide, contaminated soil, wireless devices, radiation, garbage/disposal of products and wood smoke.
- Parents in general are more often concerned about wireless devices than other Canadians. Parents of children six or younger are more apt to be concerned than others about water quality.

2.4 FACTORS OF GREATEST CONCERN

When asked to select the single greatest factor of concern, the same top five factors noted previously as posing a risk to their health or family's health were reported from the list provided to respondents. One-third of Canadians (34 per cent) say they are most concerned about air quality, while nearly as many are concerned about water quality (29 per cent). About one-quarter are concerned about mould and humidity (26 per cent) or pesticides (25 per cent). One in five are most concerned about household chemicals (19 per cent). One in ten are concerned about food safety (such as safe handling practices and preparation) (11 per cent), carbon monoxide (10 per cent), or cigarette smoke (10 per cent). A variety of other concerns are also mentioned, including wireless devices (seven per cent), personal care products (seven per cent), or building materials (six per cent). Fewer (five per cent each) are most concerned about consumer product safety, air fresheners, paint-based products, improper disposal of pharmaceutical drugs, radiation, or lead in applied paint.

Factors of Greatest Concern

"Which of the following are you the most concerned about for you and your family?" (Prompted from list, select all that apply)



Only items with 5% or more shown in chart



n=2041

Health Canada: Chemicals Management Survey, 2017

- Those living in Quebec are more likely than residents of other regions to be concerned about air quality and water quality. Those in Saskatchewan and Manitoba are more apt to be concerned about pesticides than others across the country while residents of Atlantic Canada stand out in their concern for mould and humidity.
- Older Canadians (age 65 and over) are more likely than younger counterparts to be concerned about pesticides. Younger Canadians (age 18-34), along with parents of children six years old and younger, are more apt than their counterparts to be concerned about household chemicals, personal care products and consumer product safety. Younger Canadians, along with those with lower income (under \$40,000) are also more likely to be most concerned than others about cigarette smoke.

a) Focus Group Findings

Focus participants expressed concern about a number of environmental factors and household products in and around the home. These perceived health risks include products such as household cleaners, along with specific agents for a few such as Bleach, Borax, and “dollar store” cleaners. Some participants are concerned about various plastics in the home (food containers, water pipes) and use and storage of pesticides. Focus group participants living in older homes are concerned about factors “unknown” in the home such as the use of asbestos or lead paint in the home prior to their occupancy. Some are concerned about environmental factors including mould in the home from windows or other leaks, along with carbon monoxide, and particles released from carpets. A few are concerned about products and air quality because of the prevalence of asthma or eczema for members of their household.

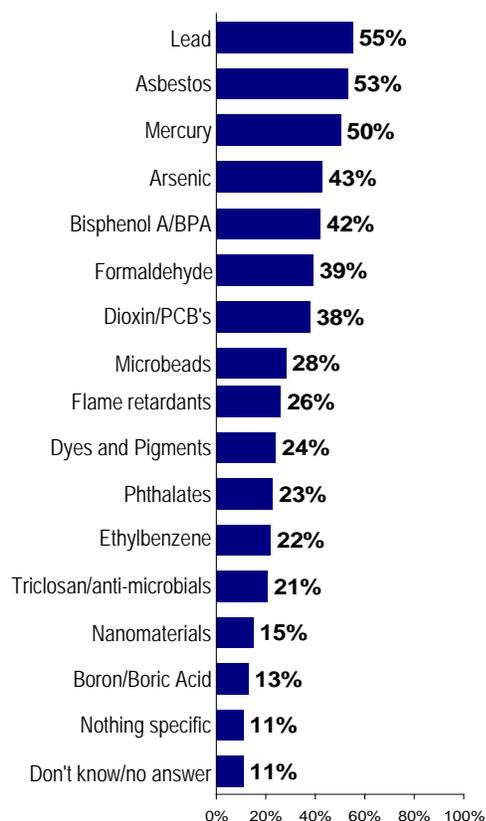
Participants in Halifax are primarily concerned about Radon; however, participants overall are most concerned about the factors that are unknown or they feel they have less control over (asbestos, mould, “what is under the layers of paint”, things neighbours are burning).

2.5 TYPES OF CHEMICALS/PRODUCTS POSING RISK

Canadians are concerned about dozens of hazardous chemicals that may pose a risk to their own or their family's health. Over half of Canadians feel that three chemicals pose a risk from the list provided; lead (55 per cent), asbestos (53 per cent), and mercury (50 per cent). Two in five indicated that arsenic (43 per cent), bisphenol A/BPA (42 per cent), formaldehyde (39 per cent), or Dioxin/PCB's (38 per cent) pose a risk. One-quarter are concerned about the risk of microbeads (28 per cent), flame retardants (26 per cent), dyes and pigments (24 per cent) and phthalates (23 per cent). Ethylbenzene (22 per cent) and Triclosan/anti-microbials (21 per cent) are perceived as a risk by one in five. About one in seven feel that nanomaterials (15 per cent) or Boric Acid (13 per cent) pose a risk to their health. Only one in ten are not concerned about anything specific (11 per cent) or do not know (11 per cent).

Types of Chemicals/Products Posing Risk

“What types of chemicals, or products with chemicals, do you believe pose a risk to the health of you and your family?” (Prompted from list, select all that apply)



n=2100

Health Canada: Chemicals Management Survey, 2017

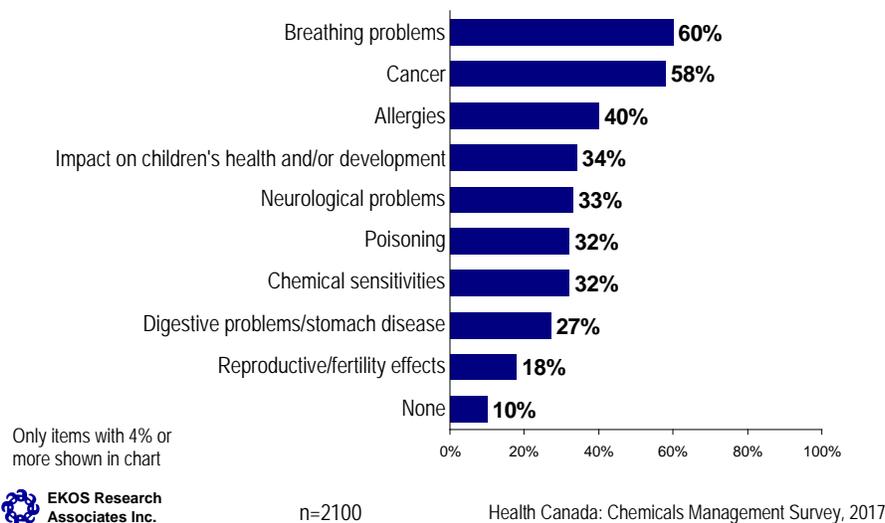
- Generally, women, Canadians who are 35 to 54 and university-educated Canadians are more likely to be concerned than others about many of these chemicals.
- Residents of British Columbia are more apt than those in other regions to list dioxin/PCB's, microbeads, and triclosan/anti-microbials. Those in Quebec (and Francophones) are more apt to cite a risk of lead, boric acid, mercury, and arsenic compared with other Canadians. Those in Ontario are more likely to point to formaldehyde.
- Parents are more apt than those without children at home to say phthalates, dyes and pigments, BPA, nanomaterials and Boron pose a risk.

2.6 NATURE OF RISKS POSED

The majority of Canadians are concerned that exposure to chemical substances in their home can potentially lead to breathing problems (60 per cent) or cancer (58 per cent) compared with other health impacts from the list provided. This is a similar level of concern shown in 2009² when respiratory problems and cancer also topped the list. Two in five (40 per cent) are concerned that chemical exposure will result in allergies. One-third believes that exposure to chemical substances may impact children's health or development (34 per cent), result in neurological problems (33 per cent), poisoning (32 per cent), or chemical sensitivities (32 per cent). One-quarter are concerned that exposure will result in digestive problems or stomach disease (27 per cent), and one in five are concerned about reproductive or fertility effects (18 per cent).

Nature of Risks Posed

"What types of potential health problems from exposure to chemical substances in your home are you currently concerned?" (Prompted from list, select all that apply)



- Residents of Quebec are more concerned than others about most potential health effects.
- There is also an age divide with those under age 55 more concerned about most potential health problems than those 55 and over.
- Parents are more likely to be concerned about impact on children's health than other adults, and, particularly for those with children six years old and younger, poisoning and reproductive and fertility effects.

² Chemical Management and Environmental Health Issues: Baseline Survey, Environics Research Group, June 2009.

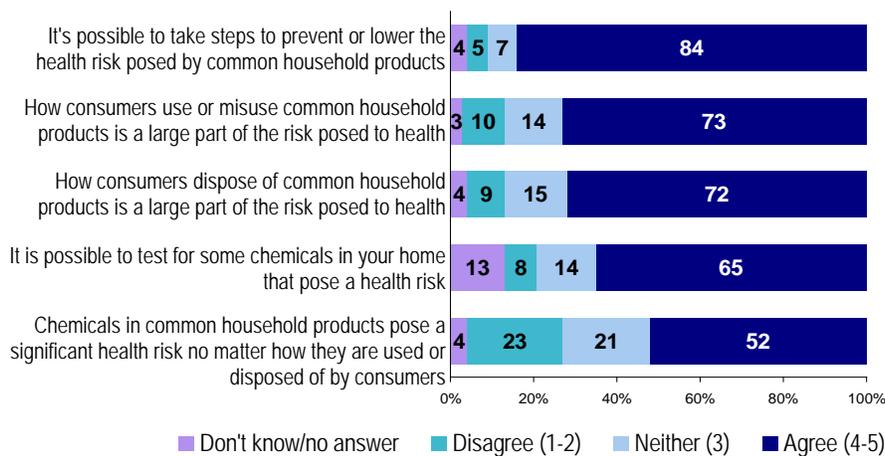
3. TAKING ACTION

3.1 PERCEPTIONS ON MITIGATING RISK

Most Canadians (84 per cent) agree that it is possible to take steps to prevent or lower health risks posed by common household products. Nearly three-quarters of Canadians agree that how consumers use (73 per cent) or dispose of (72 per cent) common household products is a large part of the risk posed to health. Two-thirds agree it is possible to test for some chemicals in the home that pose a health risk. About half (52 per cent), however, feel that chemicals in common household products pose a significant health risk no matter how they are used or disposed of by consumers.

Perceptions on Mitigating Risk

“To what extent do you agree or disagree with the following?”



EKOS Research Associates Inc.

n=2100

Health Canada: Chemicals Management Survey, 2017

- Residents of Quebec are far more likely than others to agree that chemicals pose a risk no matter how they are used. Those in Alberta are less likely to agree than the average across the country.
- Women, along with those with lower income (\$40,000 and under) and education (high school or less), are more likely than their counterparts to agree that chemicals pose a risk no matter

how they are used. Men, those with university education, income over \$120,000, or who own their own home more often disagree.

- Older Canadians (age 55 and over) are more likely than younger Canadians to feel that how consumers use or dispose of household products is a large part of the risk and that it is possible to take steps to prevent or lower the health risk posed by these products.
- The views of parents are generally reflective of the overall average.

a) Focus Groups

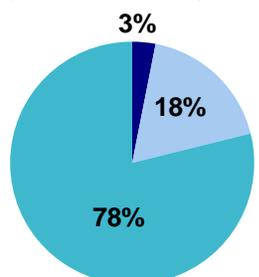
Most focus group participants feel that it is possible to take steps to prevent or lower the health risk of environmental factors and household products. These participants said that it is worth taking action to prevent risk and make a conscious choice to do, or not do, certain things that are within their control. As explained by one participant, "I think you always have a choice, and sometimes your choice is just not to use them". For some, the actions are so routine that they did not come to mind immediately. Many of the steps taken include obtaining information, such as researching products online and reading product labels and MSD sheets. As noted by one "knowledge is power".

3.2 LIKELIHOOD OF TAKING ACTION

Most Canadians would like to take informed action about health risks. Over three-quarters (78 per cent) said it is likely that if they had information about possible health risks around their home, along with steps to take, they would make changes to reduce the risk. Of the one in five (18 per cent) who said they would not, the primary reasons are that the steps would likely be too expensive (17 per cent), they do not feel it is a big enough problem (13 per cent), that the information is often contradictory or confusing (11 per cent), or that they rent their house and can not control the changes (10 per cent).

Likelihood of Taking Action

"Many of us know something is a health risk, but we don't always do anything about it. If you had information about possible health risks in and around your home, and steps you could take, how likely would you be to make changes to reduce the risk?"

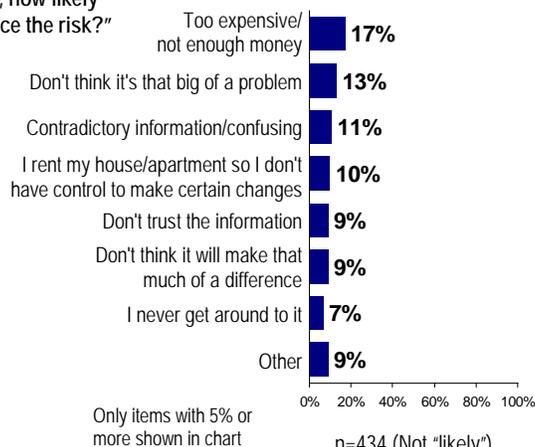


■ Not likely (1-2)
 ■ Moderately likely (3)
 ■ Likely (4-5)

n=2100



"Could you expand on why it is you feel this way?"



Only items with 5% or more shown in chart

0% 20% 40% 60% 80% 100%

n=434 (Not "likely")

Health Canada: Chemicals Management Survey, 2017

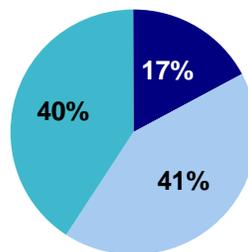
- Those in Quebec are more likely than residents of other regions to say they would make changes.
- Women, and Canadians who own their home, are also more apt to say they would make changes than others. Those over age 65 are also more likely to say they would make changes.
- Older Canadians, those with university education, higher income, and homeowners are all more apt to feel that they would not take steps because they do not feel it is that big of a problem. Those not born in Canada are more apt to say they would not make changes because they do not trust the information compared with those born in Canada.
- While parents are no more or less likely than others to say they would make changes, among those unlikely to do so, parents of children six years old or younger are more likely to point to confusing or contradictory information than those with older children or no children in the home.

3.3 CONFIDENCE IN KNOWLEDGE TO TAKE ACTION

Most Canadians are either confident (40 per cent) or moderately confident (41 per cent) that they know what steps to take to prevent or reduce the health risk to their family from environmental factors in and around their home. Fewer than two in five (17 per cent) say they are not confident.

Confidence in Knowledge to Take Action

“How confident are you that you know what steps to take to prevent or reduce the health risk to you and your family from environmental factors in and around your home?”



■ Not confident (1-2)
■ Moderately confident (3)
■ Confident (4-5)



n=2100

Health Canada: Chemicals Management Survey, 2017

- Men are more confident than women that they know what steps to take.
- Those with a high school education or less, along with those who rent their home, more often say they are not confident they know what steps to take compared with those with more education and homeowners.
- Parents, particularly those with children six years old or younger, are more apt than those without children at home to say they are confident of the steps to take.

a) Focus Groups

Many focus group participants said they feel well enough informed of the risks associated with environmental factors and household products. Some said it is their own responsibility to inform themselves; however, some contend that they are limited by not having enough available time to research information or source “safer” products, along with feeling confused by conflicting or new information, particularly for those with children. For example, one described using Borax to clean diapers for a first child but was advised not to use for second child; another said, “We had to get all non BPA stuff for the 6 year old but, hey we already gave this stuff to the 11 year old and she seems okay”. A few noted the small print on the labels of cleaners and other products as a barrier to understanding the contents and risks.

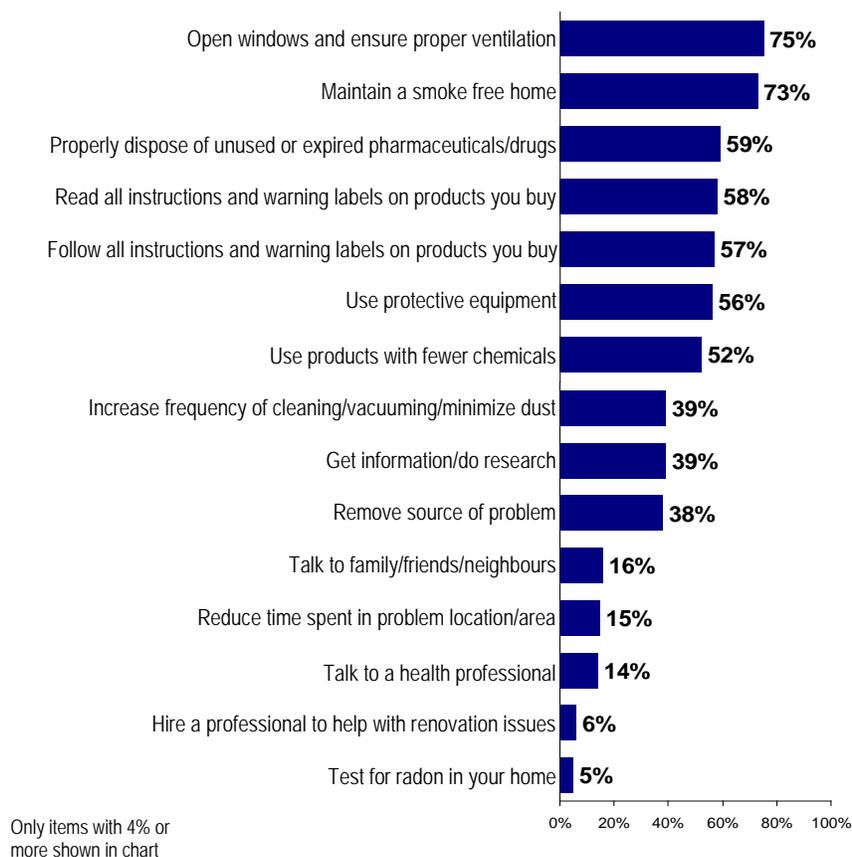
Some do not feel well enough informed; primarily those who feel that there are factors which pose a risk no matter what they do. These participants are also most concerned about factors in the environment (such as cellular towers, noise levels from traffic or construction) or the effectiveness of cumulative exposure (“what about when chemicals are mixed – you use one cleaner, then you use another cleaner – what are the effects. No one knows” or “Why are kids getting more allergies now?”). In addition, a few mentioned that “natural” products cost more, but may not necessarily be safer to use; “(natural products promote that) they are environmentally friendly but they really aren’t”.

3.4 TYPES OF ACTION PREVIOUSLY TAKEN

Canadians have taken a multitude of actions with the aim of protecting the health of their family from environmental contaminants or factors in and around the home. Three-quarters report that they open windows and ensure proper ventilation (75 per cent) or maintain a smoke free home (73 per cent), according to results from the list provided. Over half said they properly dispose of unused or expired pharmaceuticals (59 per cent), read all instructions on product labels (58 per cent), follow those instructions (57 per cent), use protective equipment (56 per cent), or use products with fewer chemicals (52 per cent). Over one-third make sure to clean and dust frequently (39 per cent), obtain information or conduct research (39 per cent), or remove the source of the problem (38 per cent). Fewer than one in five have spoken with family, friends or neighbours (16 per cent), reduced time spent in the problem locations (15 per cent) or have talked to a health professional (14 per cent). Six per cent have hired a professional to help with renovation issues (such as to remove asbestos or lead paint), and five per cent have tested for radon in their home.

Types of Actions Previously Taken

“Have you personally taken any of the following steps in the past year to protect your health and the health of your family from environmental contaminants or factors in and around your home?” (Prompted from list, select all that apply)



n=2100

Health Canada: Chemicals Management Survey, 2017

- Residents of British Columbia, women, and those ages 55 and over are more likely than other Canadians to have taken most of the steps.
- Parents, particularly parents of children six years old or younger, are less likely than those with no children at home to say that they use protective equipment, read or follow instructions and warnings on labels on products they buy, as well as properly dispose of unused or expired pharmaceutical drugs. They are, however, more likely than others to use products with fewer chemicals and increase the frequency of cleaning.

a) Focus Groups

Many cited actions that are preventative or include safety measures for the use of household products. These include storing chemicals (such as household cleaners and outdoor pesticides) in separate cabinets, marked containers, and especially away from children. Proper use of household products was often noted, including wearing gloves or a mask during use, and proper ventilation of the home, especially for tasks such as painting or cleaning the oven. Cleanliness is also a factor including washing hands and food, not wearing shoes indoors (because of contaminants picked up outdoors), and keeping the house clean and free from dust and particles (including regularly changing the furnace filter).

Many also described some choices they make about products they bring into the home. Some mentioned they use household cleaners promoted as environmentally-friendly cleaners, along with using "old fashioned" cleaning methods such as baking soda and vinegar; "use more elbow grease for cleaning and less products". Some participants said they buy water-based paints or ensure that the plastics they purchase do not contain BPA. A few explained that they avoid the use of carpets in their home to minimize environmental factors trapped in fibres, or purchase carpeting that does not use chemical treatment. Decisions on personal products were also noted such as using soaps or deodorant that are considered to pose less risk. A few take steps specifically regarding lightbulbs; "I had to replace all my led light bulbs, I don't like when they break because they release chemicals. I was worried for my family."

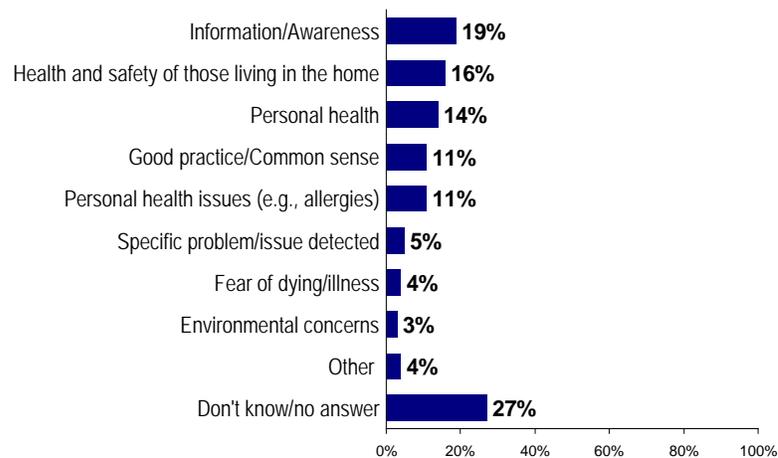
Of note, while many participants in Halifax are concerned about radon, very few have taken steps to have their home tested for radon, citing the cost of the test or lack of awareness about how to arrange for testing.

3.5 REASONS FOR TAKING ACTION

As noted, almost all of those who participated in the survey have taken at least some steps to protect themselves from household contaminants. Of these respondents, one in five (19 per cent) say they took these steps because of information they had come across. One in six, meanwhile, were motivated by concerns for the health and safety of those in the home (16 per cent) or for their own health (14 per cent). One in ten say they felt these measures were simply good practice (11 per cent) or that they took these measures to accommodate personal health issues (such as allergies) among those in the home (11 per cent).

Reasons for Taking Action

“What prompted you to take these steps?” (Prompted from list)



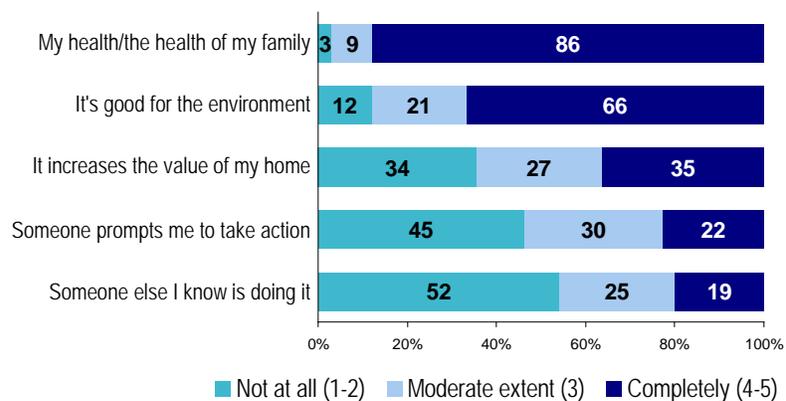
- Compared to men, women are more apt to attribute their actions to concerns for the health and safety of those living in the home or their personal health requirements (e.g. allergies).
- Parents, particularly parents of children six years old or younger, are considerably more likely to say that they took these steps to protect the health of those living in the home.
- Seniors (i.e., those ages 65 and over) are more likely to cite personal health as their primary motivation for taking these measures. Those under the age of 55 are more likely to mention their concern for those living in the home.
- University graduates are more likely to have undertaken these actions in order to protect the health and safety of those living in the home.

3.6 MOTIVATIONS TO ACT

Canadians primarily look to protect their family when taking action to reduce health risks from environmental factors in the home. Over four in five (86 per cent) indicated that their health and the health of their family is the reason they take steps to prevent or reduce risks. Two-thirds (66 per cent) said they take action because it is good for the environment. One-third (35 per cent) have a practical motivation of increasing the value of their home. Roughly one in five are influenced by other people and have taken steps to prevent or reduce health risks because someone prompted them to take action (22 per cent) or because someone else was doing it (19 per cent).

Motivations to Act

“How much of a reason are each of the following for you to take steps to prevent or reduce health risks from environmental factors in the home?”



n=2100

Health Canada: Chemicals Management Survey, 2017

- Quebecers are more apt to be motivated by the health of their family, because it is good for the environment, and the impact on the value of their home compared with residents of other regions.
- Those with a university education and with income over \$120,000 are more apt to say they are motivated by their health and the health of their family than those less educated and affluent.
- Homeowners, congruently, are more apt than those who rent to be motivated because it increases the value of their home.

- Canadians age 18-34, along with parents of children six or younger, are more likely than others to be motivated because someone prompted them to take action or someone else they know is doing it.

a) Focus Groups

Overwhelmingly, focus group participants talked about health and the health of their family, particularly children, as the reasons for taking steps to reduce risks from environmental factors and household products. As described by one participant, “Health of my children is most important, and your own health comes after that. Once that is addressed, everything else is a dead heat for third place.” Many said that environmental concerns are a benefit to taking action (with some noting the overlap between actions that improve personal health also can help the environment, such as not pouring contaminants down the drain). A few participants also pointed to pressure or influence from family and friends as a reason for taking action. Very few cited the benefit of increasing the value of (or ability to sell) their home as a reason for taking steps to reduce risk.

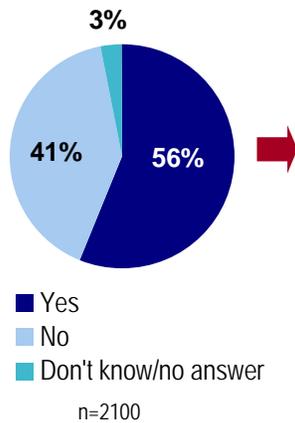
4. INFORMATION PREVIOUSLY SOUGHT

4.1 LOOKING FOR INFORMATION ON STEPS TO TAKE

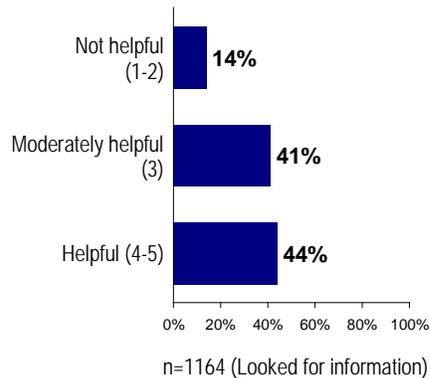
Although most Canadians feel that common environmental factors in and around their home have an impact on their personal or their family's health, fewer have looked for information on the steps to take to reduce risks. Just over half (56 per cent) of Canadians say that they have looked for information on what steps can be taken to prevent or reduce risks from environmental contaminants in and around the home. Two in five (41 per cent) have not. Of those who have looked for information, only one in seven (14 per cent) say that the information was not helpful. Most feel that the information found was helpful (44 per cent) or moderately helpful (41 per cent). By comparison to results collected in a similar study and question in 2009³, current findings suggest that Canadians are more apt to find information helpful than they were eight years ago, when only one in five found the information helpful.

Looking for Information on Steps to Take

"Have you ever looked for information on what steps you can take to prevent or reduce risk from environmental contaminants in and around your home?"



"Generally, how helpful have you found the information to be in determining what to look for in possible health risks or steps you can take to reduce the risk to you and your family?"



Health Canada: Chemicals Management Survey, 2017

³ Chemical Management and Environmental Health Issues: Baseline Survey, Environics Research Group, June 2009.

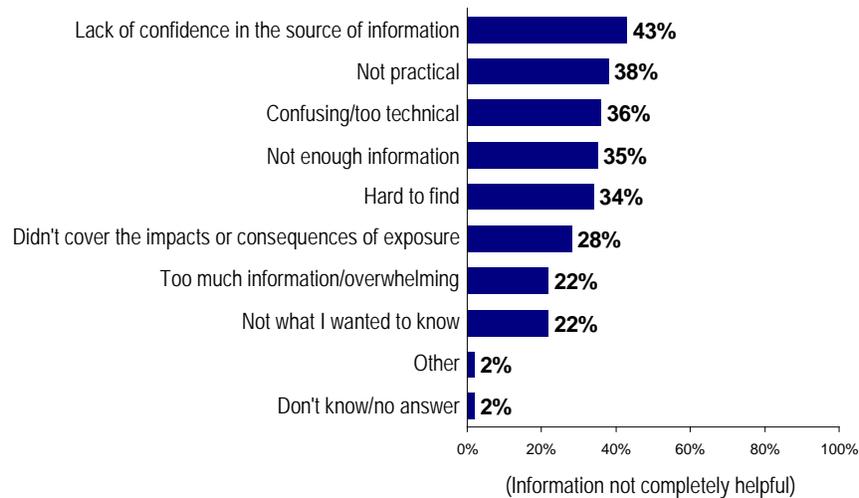
- Residents of Alberta are more likely than those in other regions to have looked for information.
- Those with a university education, household incomes over \$120,000, own their own home, and parents are more apt to have looked for information than other Canadians. Younger Canadians (age 18-34) are least likely to have looked for information compared with those 35 or older.
- Residents of Quebec are more likely than those in other regions to say that the information found was very helpful.

4.2 LIMITATIONS OF INFORMATION

As noted, of those who looked for information on what steps can be taken to prevent or reduce risks from environmental contaminants in and around the home over half found the information to be only moderately or less helpful. From the list provided, two in five (43 per cent) of these found the information to be less than optimally helpful because they lacked confidence in the source of information. Slightly fewer feel that the information is not practical (38 per cent), or confusing or too technical (36 per cent). Roughly one-third said that there is not enough information (35 per cent) or that the information is hard to find (34 per cent). Just over one-quarter (28 per cent) said that the information was limited in terms of not communicating the impacts or consequences of exposure. One in five were overwhelmed by the information (22 per cent) or the information was not what they wanted to know (22 per cent).

Limitations of Information

“What aspects about the information were not helpful?” (Prompted from list, select all that apply)



- Older Canadians (over age 65) were much more apt to report information that was confusing or too technical. Younger Canadians (age 18-34) more often found that the information was not what they wanted to know.
- Parents were marginally less apt to say that the information was not helpful because it was too technical or confusing compared with those without children living at home.
- Anglophones were more likely than Francophones to say they lacked confidence in the source of information, there was too much information, or the information did not cover the impacts of exposure.

a) Focus Groups

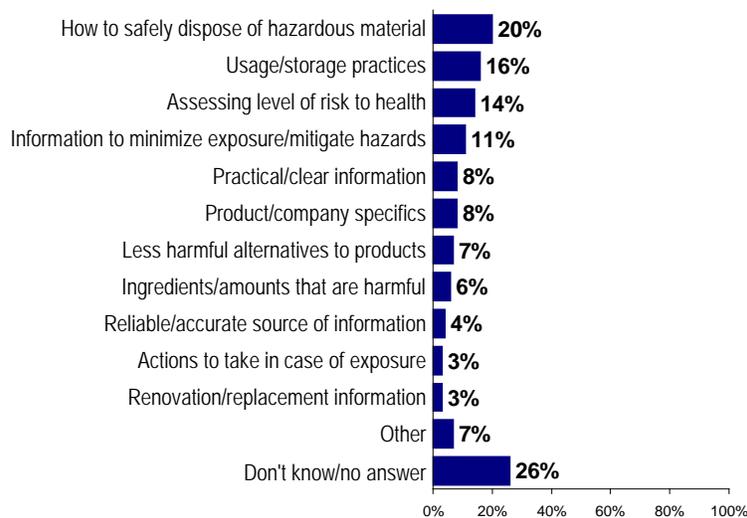
From the perspective of focus group participants the user-friendliness of information currently available is moderate and mixed. Many said that they can find information, but others said that they are not sure where to find good information. Two major complaints about information are that it is not relevant (i.e. not what they need to know) or is very technical in nature and difficult to decipher. Many participants expressed that it is all about the sources of information. If sources are recognizable, reputable and trustworthy, then likely the information is as well. Many of the sources they encounter when looking for information they either do not consider to be reputable or come from organizations that are likely biased (e.g., product manufacturers with something to gain, special interest groups) and can be misleading in subtle ways. Having information that is verified is seen as key for many.

4.3 USEFULNESS OF INFORMATION

As noted, more than two-fifths of those who looked for information on what steps can be taken to prevent or reduce risks from environmental contaminants found the information helpful. Of these respondents, one-fifth (20 per cent) found information on how to safely dispose of hazardous material to be helpful, selected from the list provided. One in six were aided by information on usage and storage practices (16 per cent) or by information to help assess the level of risk to one's health (14 per cent). About one in ten made use of information on how to minimize exposure to environmental contaminants (11 per cent), found the information to be clear and practical (eight per cent), found the information on product and company specifics to be helpful (eight per cent), used the information to find less harmful alternatives (seven per cent), or learned more about household ingredients that are harmful (six per cent).

Usefulness of Information

"What aspects about the information were helpful?" (Prompted from list)



n=512 (Information helpful)

Health Canada: Chemicals Management Survey, 2017

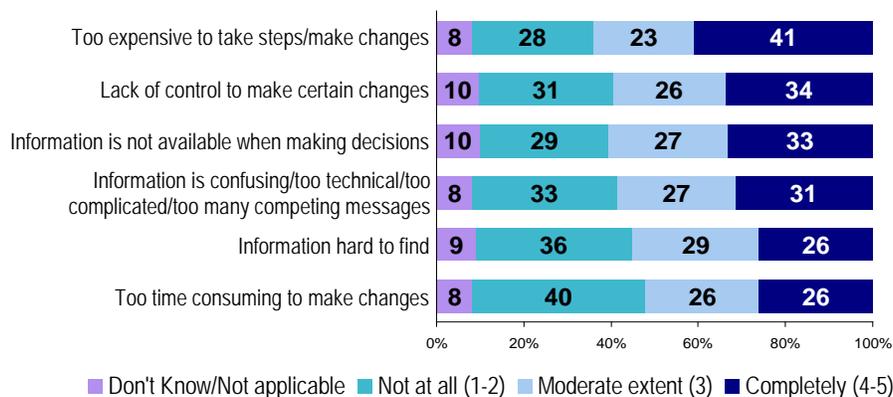
- Women are more apt to have used the information to find alternative, less harmful products.
- Parents were marginally less apt than others to say that the information was helpful because it told them how to safely dispose of hazardous material or how to assess the level of risk to health.

4.4 REASONS FOR LIMITATIONS OF INFORMATION

There are many reasons that keep Canadians from getting the information they need or taking steps to prevent or reduce health risks from environmental factors in the home. Among the tested options, two in five (41 per cent) said that it is too expensive to take steps or make changes to reduce risk. About one-third reported a lack of control to be able to make certain changes (34 per cent), that the information is not available when making decisions (33 per cent), or that the information is confusing or complicated (31 per cent). One-quarter said the information is hard to find (26 per cent) or it is too time consuming to make changes (26 per cent).

Reasons for Limitations of Information

“Sometimes there are things that keep us from getting the information we need or taking steps to prevent or reduce health risks from environmental factors in the home. To what extent have each of the following kept you and your family from taking action?”



- Residents of Quebec, younger Canadians (age 18-34), and parents with children six or younger more often noted all of the tested reasons as having kept them from taking action than other Canadians (with the exception of information being confusing, where parents of young children are no different from other Canadians).
- Residents of British Columbia, along with those with a university degree, or higher income (\$120,000 and over) are least apt to report that the information they found is confusing. This is also the case among respondents who do not live in a household that includes seniors, children, those who are pregnant or any others who are particularly vulnerable to health risks.

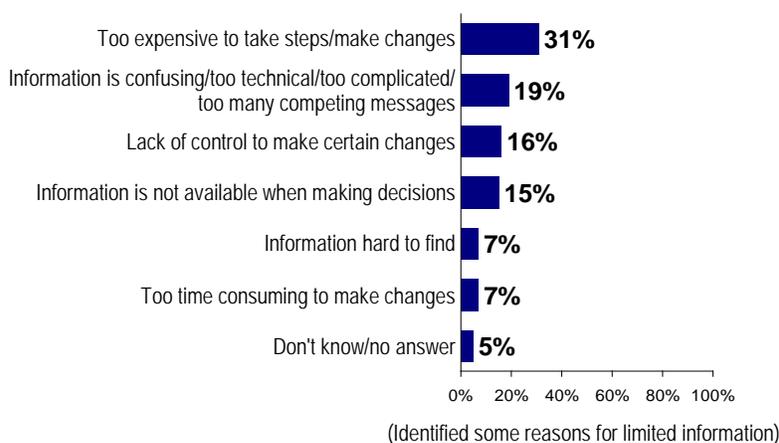
- Those with lower income (under \$40,000), women, those who rent, and individuals not born in Canada, are more apt than their counterparts to say they lack control to make certain changes or it is too expensive to make changes.

4.5 BARRIERS TO TAKING ACTION

Those respondents who rated two or more of the factors from Section 4.3 as major obstacles to taking action were asked to select what they consider to be the greatest barrier from a list provided. For nearly one-third (31 per cent), the largest single barrier to taking action to reduce the health risk of products in and around the home is that it is too expensive to take action. Fewer than two in five say the information is too confusing (19 per cent), they feel a lack of control to make changes (16 per cent) or the information is not available when making decisions (15 per cent). Seven per cent indicated that information is hard to find or it is too time-consuming to make changes.

Barriers to Taking Action

“Which of these do you find to be the largest single barrier to taking action to reduce the health risk of products in and around your home?” (Prompted list)



n=1080

Health Canada: Chemicals Management Survey, 2017

- Women, younger Canadians (age 18-34), parents, and those who have a household income under \$100,000, are all more likely than others to say that the cost to make changes is the largest single barrier to taking action.
- Parents are less likely than other Canadians to say that the information is confusing or too technical.

- Older Canadians (age 65 and over) are more apt to say the main barrier is that information is too confusing than reported by others.
- Those who rent their home and those born outside of Canada more often point to a lack of control to make certain changes than other Canadians.
- Younger Canadians feel it is too time consuming to make changes; this is much less so for older Canadians.

a) Focus Groups

Many focus group participants said that cost is a barrier to taking action in some cases. As noted by one, “You want to do the best you can, but there are many things that can cost more and you have to balance with other cost issues”. Environmental products tend to have higher prices that add up over time, and renovations that involve remediation to remove asbestos or mould are also a significant cost. A few participants in older homes indicated reluctance to begin a renovation for fear of revealing the unknown contaminants currently “undisturbed” in their home and the associated cost. However, some participants said that many actions require no cost (such as proper use and storage of household products) or may cost less than traditional household products (such as using vinegar to clean rather than single-purpose cleaners).

Some participants, particularly those with higher income, said that cost is not a barrier to them when considering actions that they perceive will protect their health; “we will find the money to do this”.

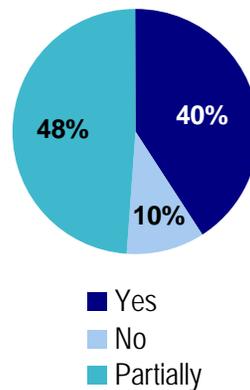
Other barriers, noted by some, include the time involved to take action to reduce risk (researching information, sourcing ‘better’ products or buying organic at special stores or markets take time or are less convenient). A few participants rent their house or apartment; with a portion indicating that their landlord is attentive to any concerns and another portion with potential risks in their home that are not addressed by the landlord. Finally, a few said that they do not do more to address risks “because of procrastination or inertia. If something came up, (I) would pursue doing more”. For these participants, products that have been stored in their home for years, or a lack of evidence of environmental factors causing risk in their home, are not perceived as a threat and therefore not addressed.

4.6 IMPACT OF INFORMATION ON TAKING ACTION

Among those who have looked for information on steps to prevent or reduce risk from environmental contaminants, two in five (40 per cent) indicated they have taken steps to reduce risk as a result of information heard or read. Just under half (48 per cent) have partially taken some steps, and one in ten (10 per cent) have not.

Impact of Information on Taking Action

“Did you take these steps as a result of the information you heard or read?”



n=1160 (Took steps)

Health Canada: Chemicals Management Survey, 2017

- Taking action as a result of information does not vary significantly by demographic group.

4.7 NATURE OF IMPACT ON ACTION

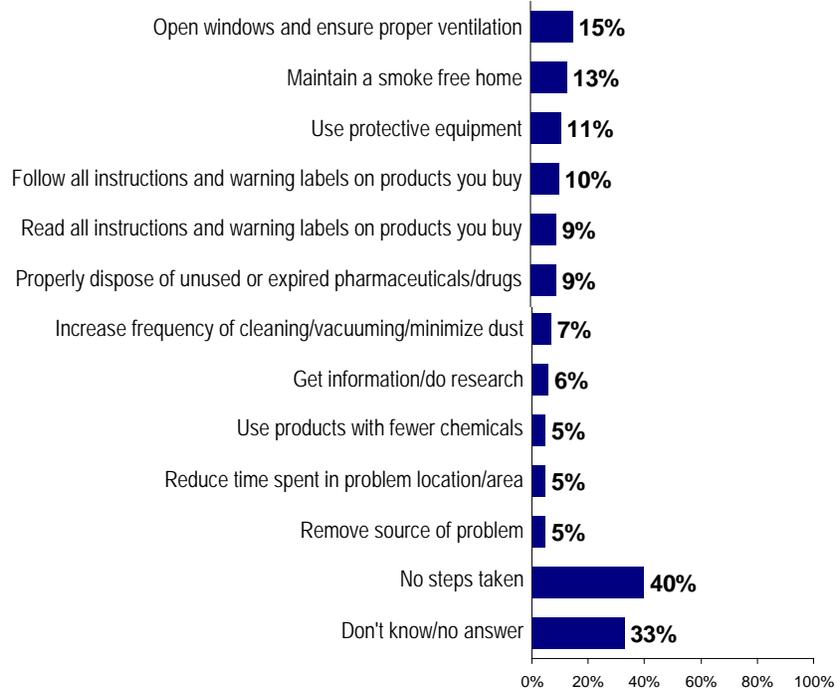
The small number of respondents (n=60) who indicated they had not taken any steps to protect their health from environmental contaminants were asked to identify the actions they would be likely to take in the future from a list provided. Two in five (40 per cent) said they would not take any steps. Of those who would, just over one in ten would open windows and ensure proper ventilation (15 per cent), maintain a smoke free home (13 per cent), or use protective equipment (11 per cent). One in ten said they would follow (10 per cent) or read (nine per cent) all instructions and warning labels on products they buy. Varied other actions would be taken by very small proportions, including increasing the frequency of cleaning (seven per cent), searching for information (six per cent), using products with fewer chemicals

(five per cent), reducing the time spent in problem areas (five per cent), or removing the source of the problem (five per cent).

Nature of Impact on Action

[IF YES] "What steps are you most likely to take to prevent or lower the health risk to you and your family from environmental factors in and around the home?"

(Prompted from list)



Only items with 5% or more shown in chart



n=60

Health Canada: Chemicals Management Survey, 2017

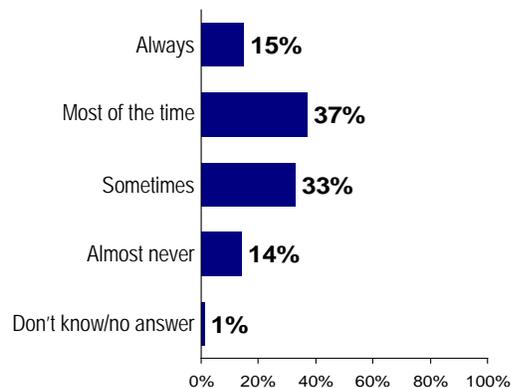
> Actions do not vary significantly by demographic variables.

4.8 INCIDENCE OF ASSESSING RISK BEFORE PURCHASE

Some people look for information on the risk of environmental health products in their home while others do not. When purchasing a product, fewer than one in five (15 per cent) said they always look for information about what a product contains before purchasing. Nearly two-fifths (37 per cent) indicated they read product information before purchase most of the time. One-third (33 per cent) do this sometimes and fourteen per cent said they almost never read product information. Based on a general comparison of results from a similar question posed in 2009, findings suggest that consumers today are more likely to look for information about products before purchasing them at least some of the time, but not always. In 2009, about three in ten said that they never looked for information, but at the same time one in four said they always do.

Incidence of Assessing Risk Before Purchase

“Some people look for information while others do not. When you purchase a product, how often do you look for information about what these products contain before purchasing?”



n=2100

Health Canada: Chemicals Management Survey, 2017

- Regionally, those in Quebec are much less apt than others across the country to look for product information.
- Older Canadians (age 65 and over) are more likely to read product information while younger Canadians (age 18-34) are least likely to do so.
- Respondents in households with those vulnerable to health risks are more apt to say they look for information.
- Parents of children six or younger are somewhat more likely to say they look for information while they are shopping for a specific product.

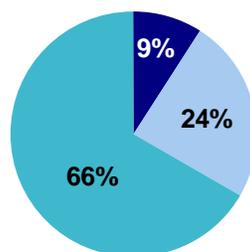
5. INTEREST IN INFORMATION

5.1 INTEREST IN INFORMATION

Respondents showed a keen interest in staying informed on how best to protect their health around the home, with two-thirds (66 per cent) indicating they would like to learn more on the subject. One in four (24 per cent) said they are moderately interested and just one in ten (nine per cent) expressed little to no interest. A general comparison with 2009 suggests that the level of interest has risen over the last eight years, given that only a third said they were interested in 2009, and one in five said that they were not interested.

Interest in Information

“How interested would you be in learning more about how to protect your health and the health of your family in and around the home?”



■ Not interested (1-2)
■ Moderately interested (3)
■ Interested (4-5)

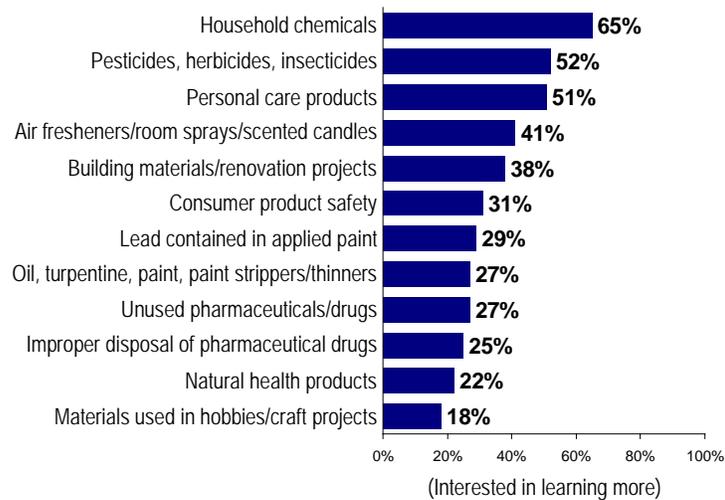
- Residents of Quebec are more interested than other Canadians in learning more about protecting their health.
- Women expressed somewhat more interest than men.
- Parents were also more apt to express an interest in information compared with those with no children living at home.

5.2 INFORMATION: HOUSEHOLD PRODUCTS OF INTEREST

Those respondents who expressed at least some interest in learning about protecting their health around the home were asked to select the various household products about which they would like to receive more information. Two-thirds (65 per cent) indicated that they would like to learn more about household chemicals from the list provided, while half would like to learn about pesticides and herbicides (52 per cent) or personal care products (51 per cent). Two in five would like to hear more about products that emit fragrances (41 per cent) and building materials (38 per cent). Three in ten also expressed interest in consumer product safety (31 per cent), lead contained in paint (29 per cent), various paints and solvents (27 per cent), unused pharmaceuticals (27 per cent), and improper disposal of pharmaceuticals (25 per cent). Respondents are comparatively less interested in natural health products (22 per cent) and materials used in craft projects (18 per cent). Household chemicals were also at the top of an unprompted list in 2009.

Information: Household Products of Interest

“What types of environmental health factors in and around your home are you most interested in learning more about?” (Prompted from list, select all that apply)



EKOS Research
Associates Inc.

n=1894

Health Canada: Chemicals Management Survey, 2017

- Compared to men, women express a greater desire to learn more about mitigating the risks posed by personal care products and natural health products.
- Those age 65 and over are more apt to select household chemicals and pesticides and herbicides. Those under the age of 35, in contrast, are comparatively more concerned about consumer product safety.

- Compared to other educational cohorts, university graduates are relatively more interested in personal care products and consumer product safety.
- Those with children six years old and younger are relatively more concerned about consumer product safety, as well as, to a lesser degree, concerns for materials used in hobbies and crafts.

5.3 INFORMATION: ENVIRONMENTAL FACTORS OF INTEREST

Respondents who conveyed a desire to find out more about protecting their health around the home were also asked to identify the various environmental factors about which they would like to learn more. Air and water quality topped the list, selected by 66 per cent and 60 per cent of respondents, respectively. Half (54 per cent) expressed interest in mould and humidity, while two-fifths would be interested in receiving information on wireless devices (41 per cent). Three in ten selected disposal of products (34 per cent), radon gas (33 per cent), food safety (33 per cent), radiation (32 per cent), carbon monoxide (32 per cent), or contaminated soil (27 per cent). Fewer than one in five respondents showed an interest in noise (17 per cent), wood smoke (15 per cent), or cigarette smoke (14 per cent).

Information: Environmental Factors of Interest

“What types of environmental health factors in and around your home are you most interested in learning more about?” *(Prompted from list, select all that apply)*



- Regionally, residents of Atlantic Canada are comparatively more concerned about wood smoke.
- Compared to other age cohorts, those under the age of 35 expressed a keener interest in learning about food safety and cigarette smoke.
- Parents are relatively more interested in learning about the hazards of wireless devices than those without children at home. Parents of children who are over the age of six are more likely than parents of younger children, or those with no children at home to be interested in information about radiation and radon gas.
- Compared to homeowners, those who rent their homes are twice as likely to select cigarette smoke.

a) Focus Groups

In terms of need for additional information, tools or products focus group participants often found it difficult to pinpoint. They did suggest that there is a clear need for more straightforward, easy to use and relevant information, and that this information needs to be organized and available on a well publicized site so that everyone knows where to access it. Websites that provide references and link to other sites for more detail were also seen as a helpful way to organize information. A few participants talked about a dedicated “product safety” website that provide updates, consumer ratings, and information on what to look for, how to implement solutions, what to do in an emergency and so on.

Some participants emphasized the need for clear product labels that tell you what you need to know (e.g., warning symbols related to health risk), without crowding it with a lot of excess or technical detail. Some spoke about product information and warnings pushed out through key websites, and use of videos with product information and consumer ratings, that many find trustworthy.

In-store product endorsements or endorsements on labels of healthy products were also mentioned as useful. This was discussed, in part, within the context of the growing evolution of consumer awareness and demand for healthier products. Manufacturers’ increasing awareness of this is reflected in the recent Tide advertising campaign to remind parents about safe storage of laundry pods away from children. This was brought up in several of the discussions as a valuable contribution to awareness.

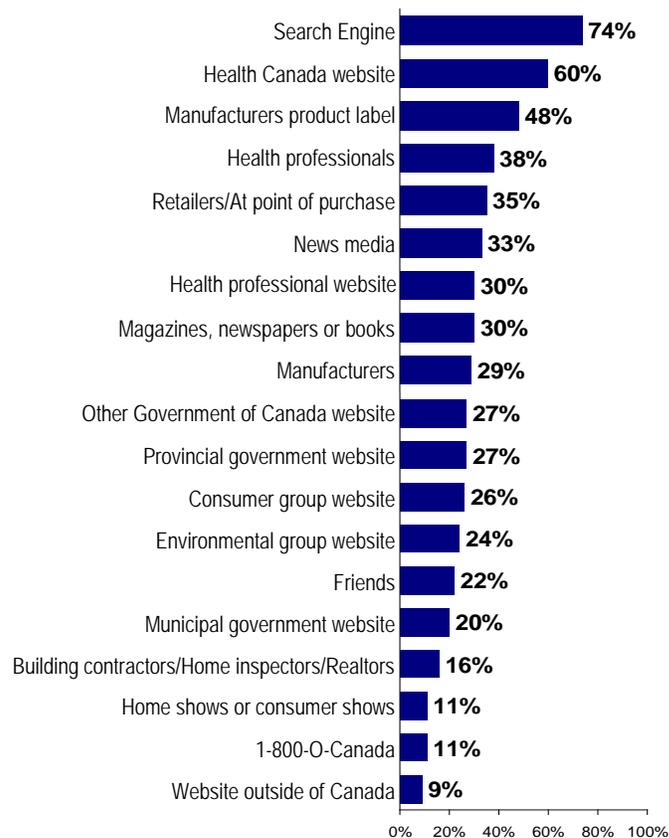
New product lines and warnings and recalls from product manufacturers also have a big impact, according to some participants. Several in Calgary described, for example, a family member or someone in their social circle starting to become connected with or informed about a new natural product line that opened up new awareness and conversations about what to pay attention to and how to do things differently. Similarly, public warnings and recalls are attention grabbers that get many consumers thinking, not just about the specific product, but generally paying more attention to impact of products and product use on health.

5.4 PREFERRED SOURCE OF INFORMATION

Respondents were asked to identify the various sources that they would consult for information on household health risks from a list provided. As in 2009, online search engines rank as the most popular medium for obtaining this information, with three-quarters of respondents (74 per cent) selecting it as a key outlet. Six in ten (60 per cent), meanwhile, indicated that they would consult the Health Canada website, which seems higher than found in 2009 when it was a distant second to online search engines in an unprompted list. Half (48 per cent) would simply check the product label, while four in ten (38 per cent) would seek guidance from a health professional. These two emphasize the importance of clear labelling and assistance of health professionals in educating the public. About one-third would turn to a retailer (35 per cent), news media (33 per cent), a health professional website (30 per cent), print media such as books (30 per cent), or the product manufacturer (29 per cent). Health professionals also seem to have risen as a preferred source compared with results from 2009, although 2009 did not provide a list to respondents so health professionals may simply not have been an obvious, top of mind choice. One-quarter would obtain their information from websites hosted by a federal department other than Health Canada (27 per cent), a provincial government (27 per cent), a consumer group (26 per cent), or an environmental group (24 per cent). One in five would rely on friends (22 per cent) or their municipal government's website (20 per cent). Information channels that were selected by fewer than one in five respondents include building contractors (16 per cent), home shows (11 per cent), 1-800-O-Canada (11 per cent), and a foreign website (nine per cent).

Preferred Sources of Information

“When looking for information on health risks (e.g., household chemicals, lead, carbon monoxide poisoning, radon, etc.) that may be present in your home, which sources would you prefer to access this information from?” (Prompted from list, select all that apply)



Only items with 4% or more shown in chart



n=2100

Health Canada: Chemicals Management Survey, 2017

- Regionally, Quebec residents are more likely to turn to traditional print sources such as magazines, newspaper, or books, while they are noticeably less likely to rely on product labels, manufacturers, and municipal government websites.
- Men are somewhat more likely than women to turn to a search engine or a manufacturer. Women express comparatively greater trust in Health Canada’s website, news media, print media, or a website run by a health professional.
- Those ages 35 and under are more apt to turn to a health professional for their information, while those ages 65 and over are more dependent on product labels and news media.

- Those with a university education are more likely to make use of nearly all of the online sources tested. These respondents are also more likely to prefer health professionals.
- Francophones are more likely to select search engines and traditional print media. Anglophones, in contrast, are more apt to choose manufacturers, product labels, contractors, and any of the specific websites tested.
- While there are no key sources that stand out as more often preferred by parents compared with those with no children living at home, they are less likely to rely on product manufacturers' labels and retailers or generally at point of purchase.

a) Focus Groups

Focus group participants described a wide variety of sources that they like to use. Many talked about online searches using Google or going to key trusted sources like WebMD. Online consumer reports and ratings were noted as a good source (i.e., strength in numbers). Some talked about shows on television and the radio (e.g. Marketplace, Holmes on Homes) that provide information about product safety and risks related to use, storage and disposal. That said, several also said that they would welcome more of this type of specific and practical information on what to and not to do. A few also talked about specific knowledgeable sources (e.g., friends or colleagues in specific occupations, connections with industry associates or informed parent groups). Several participants in different discussions also spoke of reliance on academic studies and information from health professionals (e.g., physical, pharmacy, information put out by hospitals) or large and reputable NGO's (Canadian Lung Association, Canadian Cancer Society, Heart and Stroke Foundation). Manufacturer product labels and websites are also considered good information sources for some, while others tend to be suspicious of these or find them unhelpful because of lack of clarity.

Generally sources that are trusted and reputable carry considerable weight for many. Use of many sources to corroborate information is also a key approach for some.

Many also noted that information is ever changing and consumers need to continue to check on product safety as new information is available. "All you can do is go with the new information you have", "Know better, Do better" were some of the sentiments expressed. Many participants said that information is abundant now so there are many sources you can use to inform yourself. Corroboration from multiple sources is also a key rule for some, particularly when there is contradictory information (e.g., which and whether to use sunscreens, bug repellents). Wading through the multiple sources to find the most trustworthy is often a key challenge.

Some said that personal stories and consumer ratings are sources of awareness and corroboration (i.e., strength in numbers).

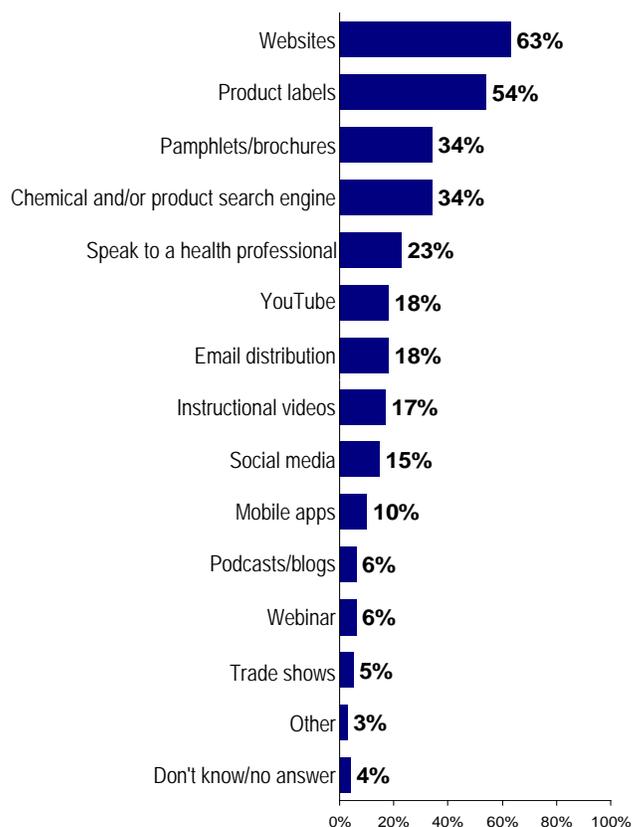
Government is considered to be a trusted source according to most participants, followed by health professionals. Several discussions turned to the role of government to help make sense of the multitude of sources of information, to stand out from the many sources of information as a trusted “go to” place where consumers can find up to date, reliable and relevant information, that is easy to understand and easy to implement.

5.5 FORMAT OF INFORMATION

Respondents were asked more generally to identify the formats through which they would prefer to access information regarding health risks that may be present in their homes. By a wide margin, websites and product labels emerged as the two most popular formats for accessing this information from the list provided, selected by 63 per cent and 54 per cent of respondents, respectively. About one in three expressed a preference for pamphlets and brochures (34 per cent in each) or a product search engine (34 per cent). One in four (23 per cent) would prefer to consult with a health professional, while one in six selected YouTube (18 per cent), email distribution (18 per cent), instructional videos (17 per cent), or social media (15 per cent).

Format of Information

“When looking for information on health risks (e.g., household chemicals, lead, carbon monoxide poisoning, radon, etc.) that may be present in your home, what format or source would you prefer to use to access this information?” (Prompted from list, select all that apply)



- Compared to other regions of Canada, residents of Atlantic are more amenable to online media outlets such as YouTube and social media.
- Women are more likely than men to prefer pamphlets.
- Compared to other age groups, those under the age of 35 are more likely to prefer YouTube, social media, and mobile applications. Seniors (i.e., those ages 65 and over), in contrast, are more apt to select product labels, pamphlets, and email distribution lists.
- Compared with others, parents are slightly more likely to favour social media and mobile apps. They are also somewhat less likely than those with no children at home to see the value in pamphlets, product labels or a chemical/product search engine.

a) Focus Groups

Focus group participants expressed interest in obtaining information in a variety of formats, including print (brochures, pamphlets), as well as online (websites, social media public service announcements/bulletins, YouTube videos) and through traditional media (shows and public service announcements on radio and television).

In terms of websites, easily accessible, well organized and easy to use information were described, as well as FAQs that allow readers to quickly scan for relevant information. Short, bulleted style also seems to work for many, along with infographics. This included detailed product information as well as specific steps to be taken (i.e., tips, and “how to” lists). Cost effective solutions to common problems and assistance for lower income households were also mentioned by a few. Use of plain and standardized language (i.e., avoiding technical terms or use of multiple terms for the same substance) were also seen as helpful. Easy, look up tables, where users can search for a product, were also suggested. Several also said that it is important to use plain and transparent language, and to avoid use of terms often used in marketing approaches, such as “natural” that consumers feel are open to interpretation.

In addition to a website with information, a call-in line that can be used to verify the safety of products was also seen as a format that would be valuable for some.

Also discussed was outreach in the community, including in-person contact (public meetings, information booths, seminars) particularly to prospective and new parents, and to parents through connections with schools and community activities. Some mentioned posters and pamphlets left in schools and community centres for parents to notice, read or take home, to pique interest, provide basic facts or checklists, along with a phone number and website for more information. Some participants in Toronto also spoke of educating children in schools to be aware and also to take the information home to inform parents. Some disagreed, however, citing the risk of raising anxiety with children about things that are outside of their control.

Participants were divided on the timing for this information. For some, having information in advance for general knowledge and awareness or in the planning stages of some renovation makes the most sense. For others, having access to a website (or app) in-store, when making actual purchasing decisions is the best time.

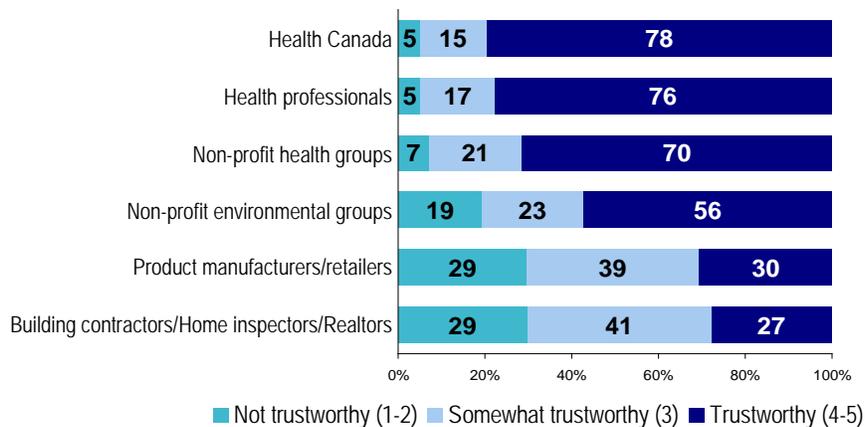
5.6 PERCEIVED TRUSTWORTHINESS OF INFORMATION PRODUCERS

Respondents were presented with a list of six groups that routinely deliver information regarding household health risks and asked to rate the amount of trust they place in each one. Three-quarters of respondents expressed a high degree of trust in Health Canada (78 per cent) and health care professionals (76 per cent), while seven in ten (70 per cent) have faith in not-for-profit health groups,

suggesting the latter two as potential trusted partners from the perspective of the public. Six in ten (56 per cent), meanwhile, would rate non-profit environmental groups as trustworthy. Respondents are considerably more cautious when it comes to manufacturers, retailers, and building contractors, with as many respondents rating these groups as less trustworthy. Compared with levels of confidence expressed in 2009, levels of trust seem higher in all areas in 2017. (Note that Health Canada was not asked in 2009.)

Perceived Trustworthiness of Information Producers

“When looking for information on health risks (e.g., household chemicals, lead, carbon monoxide poisoning, radon, etc.) that may be present in your home, how trustworthy do you think the following sources of information are?”



n=2100

Health Canada: Chemicals Management Survey, 2017

- Regionally, Quebec residents are more likely to rate non-profit health groups as trustworthy.
- Compared to men, women place comparatively more faith in non-profit environmental groups.
- Those under the age of 35 are more likely to see manufacturers and contractors as highly trustworthy.
- University graduates are more likely to express trust in Health Canada, health professionals, and non-profit environmental groups than those with a high school or college degree.
- Compared to their Anglophone counterparts, Francophones put more trust in all of the spokespersons tested.
- The level of trust perceived among parents is similar to that expressed by others, although parents of children six years old and younger place marginally greater trust in product manufacturers and building contractors, home inspectors and realtors than those with no children at home.

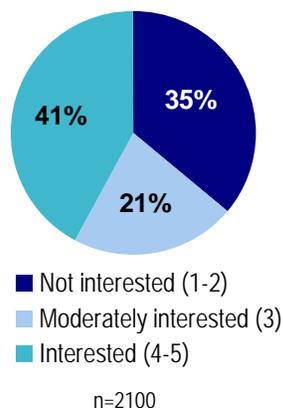
5.7 INTEREST IN AN INFORMATION APP

Results highlight a moderate level of interest in a mobile application that contains information about household chemicals and guidance on how to mitigate potential risks. Two-fifths of respondents (41 per cent) said they would be highly interested in such an app, although a similar proportion (35 per cent), expressed little to no interest. One in five (21 per cent) said they would be moderately interested.

Of those expressing at least some interest in the app, three in ten (29 per cent) said they would use it before shopping for a specific product, while one in five (22 per cent) would use it while shopping. Very few respondents (three per cent) indicated that they would use the app after the product had already been purchased. A plurality of respondents (43 per cent) selected some combination of these three options.

Interest in an Information App

“How interested would you be in an app for your mobile device (e.g., phone or tablet) with information about household chemicals and actions you can take to protect you and your family from potential risks in and around your home?”



 EKOS Research Associates Inc.

“If this type of app were available when would you be the most likely to use this information?”



Health Canada: Chemicals Management Survey, 2017

- Francophones and Quebec residents expressed more interest in the app.
- The app is of significantly greater interest among those under the age of 35, who are more likely to use it while shopping, while those ages 65 and over are more apt to use it beforehand.
- Parents with children six or younger also expressed greater interest in the app, also more often citing the shopping trip itself as the time when they would be most apt to use it.

a) Focus Groups

As with the survey results, interest expressed by focus group participants in a mobile app that provides product safety information was moderate at best. Although some said that they would use this from time to time to check on products, typically while shopping, most said that it would be of limited value and they would not use it often enough to warrant an app on their mobile device. Stipulations were that content would have to be very specific and yet easy to understand. They also said that content would need to be ever changing and updated to encompass new information and products as it is available, as well as to hold relevance and interest of users. Some expressed an interest in being able to scan a bar code at a store in order to see relevant information and safety concerns about the specific product.

In terms of structure, most said that the app would have to be very clearly organized and user-friendly; a complaint about many apps that are quickly deleted is that they are not sufficiently clear or easy to use. In Toronto, some participants stipulated that the app would have to be rolled out simultaneously on multiple platforms (iPhone, Android) to maximize benefit to all consumers. Some participants also complained that there is growing impatience with apps, particularly those not used daily, because they take up space, crowd mobile screen real estate and barrage users with unwanted notifications.

For a variety of reasons, many participants seemed to prefer websites that they can go to for information that they can access at any time, at home, or on the go, when they need it, which may not be often enough to warrant use of a mobile app, unless, perhaps they could use it to scan items to see relevant, product specific information (expressed as an interest by some).

6. PROFILE OF PARENTS OF YOUNGER CHILDREN

The following summarizes key findings for the primary target group of parents of children six years of age or younger in contrast to other Canadians.

Sample Characteristics

- In terms of sample characteristics the 573 parents of children six years of age or younger are very similar to others in the survey with regard to distribution across the country. For example, nine per cent live in British Columbia, 11 per cent in Alberta, eight per cent in Saskatchewan or Manitoba, 38 per cent in Ontario, 26 per cent in Quebec and eight per cent in the Atlantic.
- As with the overall sample, the target group is evenly split in terms of gender. About half have a college education or less, and half are university-educated, which is somewhat higher than found in the overall sample, but similar to the sample of all 25 to 54 year old respondents. One in three are under 35 years of age, almost half are between 35 and 44, and one in six are 45 or older.
- Reflecting the overall sample, 83 per cent were born in Canada. Just over one in four (28 per cent) are French speaking, 76 per cent are English speaking and five per cent cited another language as the one they speak most often at home.
- While they all have at least one child at home who is six or younger, 37 per cent also have a child at home who is between the ages of seven and twelve. Eleven per cent have a teen at home who is between 13 and 18. Seven per cent also report a senior living in the home.
- In terms of their home, two in three are living in a single family, detached dwelling, while 18 per cent live in an attached dwelling. Eleven per cent live in a condominium or low rise apartment building. Only five per cent live in a high rise apartment building.

Perceived Risk

- Parents with children six years old or younger are more likely to perceive that environmental factors in the home have a great deal of impact on health (37 per cent). For many in the focus groups, this concern was heightened with having children.
 - ◇ This is even more acute among women (41 per cent) and Quebecers (51 per cent).

- Parents of young children share the same types of concerns as others with regard to products found in the home, and expressed even more concern than average for household chemicals (71 per cent), personal care products (42 per cent), unused pharmaceuticals (46 per cent) and consumer product safety (37 per cent). As with other Canadians air quality, mould and water quality are common environmental health concerns in and around home. Parents have a comparatively heightened concern, however, for water quality (60 per cent) and wireless devices (38 per cent).
 - ◇ Women are generally more concerned than men with a range of products (e.g., household chemicals - 76 per cent, lead in paint - 63 per cent, and improper disposal of pharmaceuticals – 45 per cent).
 - ◇ Quebec parents are more concerned than other parents of young children about pesticides (75 per cent), oil, turpentine and paint products (63 per cent), unused pharmaceuticals (58 per cent) and air quality (82 per cent), including the hazards of cigarette (53 per cent) and wood smoke (25 per cent).

- Over and above concerns shared by most Canadians for lead, asbestos, mercury and arsenic, particularly heightened concerns among parents of young children, relative to others, include BPA (45 per cent), phthalates (30 per cent), dyes and pigments (28 per cent), nanomaterials (18 per cent) and Boron (17 per cent).
 - ◇ Generally, levels of concern for specific products are higher among women than men. This is also true of parents who are university-educated.
 - ◇ More Quebec parents expressed concern for lead (69 per cent), asbestos (61 per cent), mercury (61 per cent) and arsenic (56 per cent) compared with other parents across the country. Flame retardants (40 per cent), microbeads (38 per cent) and anti-microbials (37 per cent) are greater concerns for parents in British Columbia.

- While respiratory problems and cancer are primary concerns for parents of young children, just as they are for most Canadians, parents are also naturally more concerned about the impact on the health and development of children (64 per cent). This is followed by relatively greater concern than average for poisoning (42 per cent) and reproductive/fertility effects (24 per cent).
 - ◇ Women are more apt to be concerned about poisoning (47 per cent) and chemical sensitivities (35 per cent) than men.
 - ◇ Quebec parents are more concerned than other parents about cancer (68 per cent), breathing problems (69 per cent), and poisoning (49 per cent).

- ◇ Parents who rent their home are more concerned than homeowners about digestive problems (38 per cent) and reproductive/fertility effects (32 per cent).

Taking Action

- Parents of children who are six years old or younger expressed similar levels of agreement compared with other Canadians regarding the potential to take steps to protect one's self and one's family (84 per cent), how the use of (72 per cent) and disposal of (70 per cent) common household products contribute to health risk, and the potential to test for some of the chemicals in the home that pose a risk (63 per cent). They are also no more likely than others to say that common household products pose a risk no matter what you do (53 per cent).
 - ◇ Quebecers are more likely than other parents of young children to say that chemicals pose a risk no matter what you do (70 per cent). This is also higher among women (48 per cent).
 - ◇ Parents who own their home are more apt to believe in the potential to take steps to prevent or lower health risk (86 per cent). University-educated parents and homeowners are also most likely to agree that testing can be done to detect chemical threats to health in the home (67 per cent in each case).
- Parents of young children are as likely as others to say they would make changes to reduce risk if they had the information (79 per cent). Among the small segment unlikely to do so, parents of children six years old or younger are more likely to point to confusing or contradictory information (18 per cent) compared with parents with older children or no children in the home.
- Confidence in their knowledge of what steps to take is higher than average among parents of young children compared with others (44 per cent said they are confident and only 12 per cent said that they lack confidence). In focus groups, parents of young children seemed to inform themselves of relevant safety risks more than other focus group participants, along with actions taken to mitigate risk (locking cupboards, proper storage of products).
 - ◇ In particular, confidence is higher among parents of younger children in British Columbia (58 per cent), and lower in Quebec (34 per cent).
- As with other Canadians popular steps taken include opening windows to ensure ventilation, and maintaining a smoke free home (71 per cent in each case). Parents of younger children are more likely than others, however, to say they use fewer chemicals (56 per cent) and increase the frequency of cleaning (44 per cent). They are less likely than others, however, to use protective equipment (48 per cent), read or follow instructions and warnings on labels on products they buy (53 per cent), and properly dispose of unused or expired pharmaceutical drugs (53 per cent).

- ◇ Parents in British Columbia are the most likely across the country to read instructions and warning labels (73 per cent), use fewer chemicals (70 per cent), follow instructions (66 per cent) and use protective equipment (65 per cent).
 - ◇ Parents in Quebec are the least likely across the country to maintain a smoke free home (54 per cent), read and follow instructions (39 and 40 per cent, respectively), and use protective equipment (37 per cent).
 - ◇ Compared with men, women are more apt to report opening windows (75 per cent), use fewer chemicals (62 per cent), properly dispose of unused pharmaceuticals (59 per cent), follow instructions (54 per cent) and increase the frequency of cleaning (50 per cent).
 - ◇ Older parents of children under six (35 or older) are also more likely than those under 35 to open windows (75 per cent), use fewer chemicals (60 per cent), properly dispose of pharmaceuticals (57 per cent), read and follow instructions (57 and 53 per cent), and use protective equipment (54 per cent).
 - ◇ University-educated parents also tend to use fewer chemicals (64 per cent), follow instructions (57 per cent), use protective equipment (53 per cent) and get information on products (46 per cent) than other parents of young children.
- The health and protection of family members, particularly the health of children, is the primary reason for making changes, according to 33 per cent of parents with younger children. This is even more pronounced in Quebec (43 per cent) and among women (41 per cent) compared with their counterparts.
 - Parents of young children are similar to other Canadians in terms of the extent to which they are motivated to take steps for different reasons. Almost nine in ten (87 per cent) do it for their own or family's health (even higher among the university educated – 93 per cent). Six in ten (63 per cent) are motivated by what is best for the environment, and even higher among Quebecers – 73 per cent, as well as among women and the university-educated – 68 per cent in each case. Just over one in three (37 per cent) are interested in increasing the value of their home, particularly in Quebec (45 per cent). Just over one in four (27 per cent) said that someone prompts them to take steps, although this is more frequent than found among other Canadians. It is highest among parents under 35 (33 per cent). One in five (21 per cent) take steps because someone else is doing it.

Looking for Information

- Reflecting the average, 60 per cent of parents of young children said that they have looked for information on steps they can take to prevent or reduce health risks from environmental contaminants in and around their home (the same proportion reported among parents of older children).
 - ◇ The incidence of looking for information is similar across the country and between men and women. It is marginally higher among the university-educated (67 per cent) and lowest among those with high school levels of education (44 per cent).
- Parents of young children are also as likely to find the information helpful as reported by others (47 per cent). Only 12 per cent report the information to be unhelpful.
 - ◇ Results are quite even across parent segments, although marginally higher in Quebec and among those reporting lower household incomes.
- Among parents finding the information not completely helpful, lack of confidence in the information (45 per cent) and information that is insufficient (39 per cent), not practical (34 per cent), confusing or too technical (33 per cent) or hard to find (31 per cent) are key reasons, reflecting the same pattern found in the broader public.
 - ◇ There are few differences across parent segments, although men are more likely than women to say there is insufficient information (46 per cent) or that it was not what they wanted to know (31 per cent).
- Useful information is most often considered so because it describes methods of safe disposal of hazardous material (13 per cent) or provides tips on useful storage methods (12 per cent). Parents are marginally less able to articulate precisely what it is about the information that makes it helpful. This was also a common theme in focus groups, not only with parents, but with others. Participants were more readily able to recognize what was useful (i.e., react to it), than they were to proactively describe what makes some information useful.
- Many of the tested reasons for the limitations of information that prevents parents from taking action are somewhat more often an issue for parents of young children than they are for others. For example, the key reason for limitations, where the gap with other members of the public is larger, is that the steps described are expensive (49 per cent compared with only 38 per cent among those who are not parents). There is also a sizable gap in reports of information that is hard to find (31 per cent compared with 24 per cent among those who are not parents). Parents of young children also find it time consuming (to look for information) more often than others do (32 per cent compared with 23 per cent among those who are not parents). Lack of control is also more of an issue (39 per cent compared with 32 per cent among those who are not parents).
 - ◇ Quebecers are more apt to say the information is hard to find.

- ◇ Those who rent naturally find lack of control to be an issue (53 per cent compared with only 34 per cent among homeowners). Parents born outside of Canada also find lack of control to be a limitation (52 per cent).
 - ◇ Expense is a limitation more often cited by women (54 per cent), younger parents (under 35) (58 per cent), and those who rent (57 per cent).
 - ◇ Francophones are more apt to point to information that is confusing or too technical as a limitation (42 per cent compared with 31 per cent of Anglophones reporting the same).
- Expense is the single more prominent barrier to taking action, according to 31 per cent of the overall sample, and is an even larger issue among parents of young children (34 per cent). Another 15 per cent of parents of young children find the information confusing, technical or featuring competing messages. Lack of information when you want it (12 per cent) and not having the time to look for information (10 per cent) are also reasons cited by parents, with lack of time cited more often than it is by other Canadians.
 - ◇ Expense of steps that need to be taken is an issue more often with women, younger parents (under 35) and those who rent (44 per cent in each case) compared with their counterparts.
 - As with other Canadians, four in ten (42 per cent) parents said that they have taken steps as a result of information they heard or read. There are no differences across parent segments.
 - Also reflecting the broader findings, 14 per cent of parents said they always look for information before purchasing a product, and another 37 per cent said that they do so most of the time. Only 12 per cent said they almost never look for information before making a purchase.
 - ◇ Findings are very similar across parent segments.

Information of Interest

- Interest in learning more about how to protect the health of one's family is higher among parents with young children (72 per cent), and few said this is not of interest (5 per cent).
 - ◇ Interest is higher among women and those who are university-educated (76 per cent in each). It is also of particular interest to Francophones and those born outside of Canada (81 per cent of each segment).
- Information of greatest interest to parents of young children related to air quality (68 per cent), household chemicals (62 per cent), water quality (59 per cent) and mould (55 per cent). Other areas, identified more often among parents of young children than others are related to

product safety and wireless devices (45 per cent each) and materials used in hobbies and crafts (22 per cent).

- ◇ Quebecers are most apt to be interested in information about product safety, and pesticides (55 per cent each), and air fresheners or scented candles (48 per cent). Residents of the Prairies are more interested than others in information about household chemicals (78 per cent) and unused pharmaceuticals (36 per cent). Residents of Alberta are among the most interested in information on wireless devices (59 per cent).
 - ◇ Women are more interested than men in information about air quality (72 per cent), personal care products (58 per cent), and product safety (53 per cent), as well as carbon monoxide (40 per cent).
 - ◇ Parents under 35 are more interested in product safety information (53 per cent) compared with parents 35 or older.
 - ◇ Interest in building materials is much more prominent among homeowners (42 per cent compared with 24 per cent of renters).
- As with other Canadians, online search engines (74 per cent) and the Health Canada website (62 per cent) are the most preferred sources for information. Health professionals and manufacturers' labels are also good sources for 41 per cent, particularly in British Columbia (54 and 57 per cent). Manufacturers are not preferred as a source as often among parents of young children compared with other Canadians.
- ◇ Women are as likely to see the Health Canada website as a preferred source (70 per cent) as they are to point to online search engines (73 per cent). Health professionals are also a source more often preferred by women (47 per cent) than men, which is also true of parents under 35 (48 per cent).
- Related to information source, most parents said that websites (62 per cent) and product labels (46 per cent) are as the best formats in which to access information.
- As with other Canadians, parents of young children see Health Canada (79 per cent), health professionals (77 per cent) and non-profit health groups (71 per cent) as highlight trustworthy. Other sources are not seen to be as trustworthy, particularly (product manufacturers and retailers (35 per cent) as well as building contractors, home inspectors and realtors (34 per cent).
- ◇ Quebecers are particularly likely to see health professionals and non-profit health groups as trustworthy (83 per cent in each case).
 - ◇ Younger parents, under 35, are more trusting of manufacturers and building industry professionals (41 and 43 per cent, respectively).

- Parents are more interested than others in an app for their mobile device (51 per cent), and are likely to use in before and while shopping. Focus group participants were generally less keen, citing limited need to reference this type of source, preferring a website to an app on their phone which they reserve for functions they use on a more regular basis.
 - ◆ Interest is highest in Quebec (60 per cent), and among those under 35 (58 per cent), those with a high school level of education (62 per cent), and renters (63 per cent).

7. REACTION TO SOCIAL MARKETING CAMPAIGN CONCEPTS

Focus group participants were presented with a list of six sample calls to action as examples of what a Health Canada social marketing campaign might target. Three general concepts were then presented and discussed as possible approaches for a campaign that might include some electronic/online advertising, some print and radio advertisement and some materials to assist in in-person promotional/outreach opportunities.

a) Overall reaction to Possible Calls to Action

Overall, when presented with the sample calls to action, most participants agreed that these are reasonable requests and good things for Canadians to be mindful of. Some suggested that people already know about some of these things while others said that some are more difficult to do (e.g., test for radon). Nonetheless, most participants generally agreed that having this type of list of straightforward actions that could be taken to reduce the risks to health is useful for the public. A few suggested that it would be beneficial to couple this with the rationale (i.e., why is it important to do these things).

b) Concept 1 – Care for your home health as you would your own health

There was mixed reaction to the approach of linking the health of your home to your own health. Some saw this as a natural extension to caring for your health as the home environment has an influence on individual health. For those who commit to personal health through exercise and eating healthy, naturally, they would want to ensure they are not exposed to environmental factors or household products that negatively affect their health. For these participants, the personal maintenance and home maintenance are connected. However, a few said that the two are not related. This may have been, in part because participants in about half of the groups said that the idea of “home health” is confusing. “Is it about how your home makes you healthy or is about the actual health of your home (i.e., need for repairs or renovations).” “If my health is supposed to be based on how I treat my home, my health is in bad shape (because I don’t take very good care of my home)!” Many said that, whether or not they like the approach, the concept needs to be simplified and clarified so that it is more apparent that Canadians are being asked to think of the efforts they make to stay healthy, and extend these efforts to things they do in their home, as a natural part of the mix.

Many participants, through all three concepts, felt that an image of home was an appropriate and expected image with each message. However, generally participants did not like the icon presented in this concept. As noted by one, “that doesn’t look like my house” (the shape being narrow two story rather than bungalows found in Halifax). Participants envisioned further indicators of a home with the image, such as a chimney, walkway, or clothes line blowing in the breeze. While some associated the cross as representing health (such as Red Cross), others found that the cross within the house lead to the perception of church or hospital. There were a number of suggestions generally to use a heart to represent health rather than a cross.

c) Concept 2 – First Aid Kit for Your Home

This concept received the most positive reviews, with the exception of a few participants. Most liked the idea of a concrete set of actions that could be taken; a checklist for your home. This was imagined as leading to constructive information on how to and what to address in the home, which was seen as empowering in itself to have the information to be able to make changes. This is what seemed to be missing in the first and third concepts – the idea that there would be practical information on steps to take, what to change and/or how to change it.

Concerns were expressed, however, about the visualization of this as a “first aid kit” for two reasons. First, a first aid kit is something that already exists in many homes and it has a specific purpose. Repurposing this concept creates confusion. Second, use of a first aid kit is a reactive measure when something has gone wrong. It is expected that the ideas and information available would be much more proactive to ensure that there are no problems (i.e., preventative). Phrases such as tool kit or tool box and check lists were seen as better representations of the kind of resources that this would include. Again, some participants said that it would be important to add why it is important to do these things. Checklists in particular could be seen as empowering, giving one a sense of accomplishment when the issue was addressed (“check!”), that they have recommended steps for peace of mind. The idea of a check list, as indicated by a few, would encourage some to get around to actions they have been putting off due to inertia (such as installing a carbon monoxide detector, or properly disposing of old paint cans).

Again the icon was not seen as a good representation of this type of concept, largely because the cross and case seem like an actual first aid kit or doctor’s bag. Showing lists or information marked by a heart or other indicator of health (stethoscope, etc.) were seen as viable possibilities.

d) Concept 3 – Your Health is in your hands

This is the concept that focus group participants liked the least, although one particular group in Calgary did find it appealing. Generally the concept of personal responsibility is seen as acceptable, but also obvious for some (“who else’s responsibility is it going to be?”). Empowerment is also seen as a tired and overused concept for many. Some participants also said that it adds undue pressure and guilt; that you must take responsibility, particularly when it is not coupled with the information and solutions you need to take action. A few felt that promoting empowerment to take actions on environmental factors and household products is a move by the government to deflect their responsibility. In the one group, in Calgary that liked this concept the best, they felt that it is important to emphasize to the public that it is up to them to do their research and make choices accordingly, and not to blame the world, saying “I didn’t know”, even though information is available for anyone who looks for it.

In particular, all participants, but one or two disliked the idea of the superhero imagery as part of the concept. They felt that the wave of superhero is entirely overdone and that it brings to the concept a lack of sincerity. By and large participants did not like the icon for this third concept (a shield) either, wondering how a shield relates to the idea of empowerment and taking responsibility. The shield brought to mind images of life insurance companies, and the Clash of the Clans video game.

e) Bringing it all together

While participants generally did not like the reactive message of a first aid kit, this concept was favoured in terms of the perception of providing “tools” or actions Canadians can take to ensure that preventative measures have been considered in their home (i.e., with this information/set of solutions, you will be able to make the changes you need to make). With this concept, more participants indicated they were likely to follow a link or website for more information. Some suggested that rather than the concept of responsibility or even coining the tired term of empowerment, there can be a celebration of success (You’ve made the changes. You did it!)

Some also liked the idea of the natural extension to changes in the home, but again, conveyed in a straightforward way. Several agreed that this concept could also be married under concept 2. The blended concept could convey the idea that you already take steps toward your health; here are some tips/ a checklist of things to look for in your home to increase protection for your whole family, giving you a sense of accomplishment and peace of mind.

8. CONCLUSIONS AND IMPLICATIONS

Results suggest that most Canadians are generally aware of and acknowledge the potential health risks of household products and environmental factors. Focus group participants described this as an ever evolving awareness of the value of a healthy lifestyle, and the impacts of the choices we make on our health and the environment. Of particular concern in the survey are factors such as household chemicals, pesticides, air quality, mould, and water quality, which were echoed in focus group discussions. Perceived consequences of exposure to these factors are centred on breathing problems and cancer and for parents, impacts on the health and development of children.

Most Canadians also recognize that there are a wide range of steps that can be taken to mitigate the risks from these factors, with many indicating that how consumers use or dispose of common household products is a large part of the risk. Furthermore, most of those who participated in the survey have taken at least some steps to protect themselves from household contaminants. Focus group participants also described a wide range of efforts to reduce dangerous chemicals coming into the home, research consumer safety and methods of use and disposal of products, and pay attention to product labels. A note of caution should be interjected, however, in interpreting the results of both the online survey and the focus groups. The approach used in both lines of evidence created an environment where participants could select from lists of products of concern and/or steps they take (survey), or could build on the suggestions and descriptions made collectively in a group (focus groups). These likely resulted in some over reporting of the types of steps taken. Overwhelmingly, Canadians cite their health and the health of their family members as their motivation for taking these actions, although for many, this is also closely tied with impact on the environment.

Results point to an interesting dichotomy. On one hand, most Canadians seem fairly confident that they know what steps to take to prevent or reduce the health risks from environmental factors around the home. Those more economically vulnerable are perhaps a key exception, with many feeling less comfortable with their knowledge in this area.

On the other hand, although most Canadians recognize the risks of common environmental factors around their home and have taken actions to mitigate these hazards, fewer have looked for information on the steps to take to reduce risk. In particular, younger Canadians and those of lower socioeconomic status are the least likely to have searched for information. And, while most Canadians find the available information to be at least moderately helpful, many Canadians complain that this information is unreliable, not relevant, difficult to find, or overly technical and confusing. This was strongly articulated in the focus group discussions, with many saying that they simply do not trust many of the sources available, and that much of the information is designed to be confusing and misleading.

Also somewhat at odds with the confidence expressed by many, the study highlights a strong appetite for more information on how to mitigate the risks from common household products. The specific areas of interest largely reflect the areas with which they expressed concern (air quality, water quality, household chemicals, etc.). Both the survey evidence, and in particular, focus group discussions argue for a strong need for easy to access, relevant, and straightforward to understand and use information that Canadians can rely on, from trusted sources, to guide them in their choices.

Both the survey and focus groups favour Health Canada, health professionals, and non-profit health groups, seen as the most trusted messengers for this information. In particular, many focus group participants expressed frustration with the quality of information available, pointed to a strong role for government to provide information that Canadians can trust. Health professionals and non-profit health groups would be natural partners in these endeavours. Most Canadians currently rely on the Internet and product labels for their information; however, there appears to be little correlation between trust and use. For instance, more than half of Canadians make use of the manufacturers' labels, yet product manufacturers rank next to last in terms of trust further arguing for government to fill the void in terms of information from a trusted source.

The study also looked at receptivity to a mobile application that contains information about household chemicals and guidance on how to mitigate potential risks. Most Canadians expressed at least some interest in the app, particularly parents with children six or younger and Quebec residents. At the same time, interest was not overwhelming and many expressed limited interest. Focus group participants described the value of having the information where you need it, when you need it, at a well publicized website, while, for many, mobile apps are viewed as best reserved for the functions that Canadians use daily.

Reactions from focus group participants to a number of possible concept approaches to a public education campaign echoed the kind of interest that Canadians expressed, in both the survey and discussions, for information that is easy to access, easy to understand and apply, and tells you what you need to know without technical jargon or other confusing details. It was for this reason that an approach that emphasizes helpful resources and reference lists was immediately found to be the most appealing to participants, rather than an approach that is focused on convincing Canadians of the importance of taking steps ('Give us useful tools, that also serve as a good reminder, and we can take it from there.')

Study results suggest that having children has a large impact on the level of attention Canadians pay to the impacts of household chemicals. Parents are consistently more likely to express concerns over the risks posed by household chemicals and environmental factors and are more likely to have sought information on how to mitigate these risks. At the same time, interest in information is acute in this segment, making them a natural primary target group for public education messages and information products. Key considerations for this segment are strong concerns for health risks to children, coupled with limited budgets and limited time and attention to find and digest information.

Similarly, age plays a significant role in taking action. Indeed, a number of focus group participants described getting older and feeling more vulnerable because of health concerns as the impetus to start thinking about these issues. Older Canadians (particularly those ages 55 and over) are more likely to have looked for information on how to assuage potential health risks and are more likely to have taken steps to do so. This segment is also a target group that is receptive to hearing about steps that can be taken to mitigate health risk, and are highly interested in information products that can help them make wise choices.

Lastly, women and residents of Quebec are consistently more likely to express concerns over the dangers posed by household chemicals and environmental factors. They are consistently more likely to have sought information on these risks and are more likely to have taken action to mitigate them. Interest levels are also stronger in these two segments, who will be highly receptive to resources and tools they can use to guide them.

APPENDIX A

SURVEY QUESTIONNAIRE

Web Intro

We are conducting a survey and it will only take about 15 minutes.

Please rest assured that your answers are completely confidential (this means that no individual will be associated with the survey's results - rather, they will be rolled up into large categories to protect the confidentiality of each respondent) and that this survey is voluntary.

INSTRUCTIONS

- * Please consider the questions and your answers carefully.
- * On each screen, after selecting your answer, click on the "Continue" or "Back" buttons at the bottom of the screen to move forward or backwards in the questionnaire.
- * If you leave the survey before completing it, you can return to the survey URL later, and you will be returned to the page where you left off. Your answers up to that point in the survey will be saved.
- * If you have any questions about how to complete the survey, please call EKOS at 1-866-211-8881 or email us at online@ekos.com.

Q1

How much, if at all, do you believe you and/or your family's health is impacted by common environmental factors in and around your home (e.g., air/water quality, household chemicals)?

A great deal	1
A fair amount.....	2
Not very much.....	3
Not at all	4
Don't know / No answer	9

PREQ2

What factors in and around your home do you think pose a risk to your health and the health your family?

Select all that apply

Q2A [0,12]

Household products

Consumer product safety (e.g., children's toys, household furniture).....	1
Personal care products (e.g., cosmetics, shampoo).....	2
Air fresheners/room sprays/scented candles.....	3
Household chemicals (e.g., kitchen and bathroom cleaners).....	4
Oil, turpentine, paint, paint strippers/thinners	5
Lead contained in applied paint (e.g., on the surface of something within the home).....	6
Building materials/renovation projects (e.g., adhesives, sealants, insulation products).....	7

Materials used in hobbies/craft projects	8
Pesticides, herbicides, insecticides	9
Unused pharmaceuticals/drugs (human or veterinary)	10
Improper disposal of pharmaceuticals drugs (human and veterinary).....	11
Natural health products.....	12

Q2B [0,14]

Household Environmental Factors

Water Quality	1
Air Quality.....	2
Contaminated Soil	3
Radiation (including electromagnetic radiation)	4
Garbage/disposal of products	5
Radon gas	6
Wireless devices	13
Mould/humidity.....	7
Carbon monoxide	8
Food safety (e.g., safe handling practices and preparation).....	9
Cigarette smoke.....	10
Noise (e.g., loud toys, earbuds)	11
Wood smoke.....	12
Individual chemicals (please specify).....	78

Q2C [0,2]

Other (please specify).....	77	B
Don't know / No answer	99	BX

Q3 [1,3]

If... Q2C not = 99

Which of the following are you the most concerned about for you and your family?

Select up to 3

Q2A = 1	
Consumer product safety (e.g., children's toys, household furniture).....	1
Q2A = 2	
Personal care products (e.g., cosmetics, shampoo).....	2
Q2A = 3	
Air fresheners/room sprays/scented candles.....	3
Q2A = 4	
Household chemicals (e.g., kitchen and bathroom cleaners).....	4
Q2A = 5	
Oil, turpentine, paint, paint strippers/thinners	5
Q2A = 6	
Lead contained in applied paint (e.g., on the surface of something within the home).....	6
Q2A = 7	
Building materials/renovation projects (e.g., adhesives, sealants, insulation products).....	7
Q2A = 8	
Materials used in hobbies/craft projects	8

Q2A = 9	Pesticides, herbicides, insecticides	9
Q2A = 10	Unused pharmaceuticals/drugs (human or veterinary)	10
Q2A = 11	Improper disposal of pharmaceuticals drugs (human and veterinary)	11
Q2A = 12	Natural health products.....	12
Q2B = 1	Water Quality	14
Q2B = 2	Air Quality.....	15
Q2B = 3	Contaminated Soil	16
Q2B = 4	Radiation (including electromagnetic radiation)	17
Q2B = 5	Garbage/disposal of products	18
Q2B = 6	Radon gas	19
Q2B = 13	Wireless devices	28
Q2B = 7	Mould/humidity.....	20
Q2B = 8	Carbon monoxide	21
Q2B = 9	Food safety (e.g., safe handling practices and preparation).....	22
Q2B = 10	Cigarette smoke	23
Q2B = 11	Noise (e.g., loud toys, earbuds)	24
Q2B = 12	Wood smoke.....	25
Q2B = 78	Individual chemicals:	26
Q2C = 77	Other:	27
	Don't know / No answer	99

X

Q4 [1,15]

What types of chemicals, or products with chemicals, do you believe pose a risk to the health of you and your family?

Select all that apply

Lead.....	1
Bisphenol A/BPA	2
Dioxin/PCB's	3
Flame retardants	4
Phthalates	5
Dyes and Pigments	6

Asbestos	7	
Boron/Boric Acid	8	
Microbeads	9	
Triclosan/anti-microbials.....	10	
Mercury	11	
Arsenic	12	
Ethylbenzene	13	
Formaldehyde.....	14	
Nanomaterials.....	15	
Nothing specific	98	X
Don't know / No answer	99	X

Q5 [1,10]

What types of potential health problems from exposure to chemical substances in your home are you currently concerned about?

Select all that apply

Poisoning	1	
Cancer.....	2	
Breathing problems (e.g., respiratory disease/asthma)	3	
Neurological problems (e.g., brain disease)	4	
Digestive problems/stomach disease	5	
Impact on children's health and/or development	6	
Reproductive/fertility effects.....	7	
Chemical sensitivities (e.g., perfumes, soaps).....	8	
Allergies	9	
Other (please specify).....	77	
None	98	X
Don't know / No answer	99	X

PREQ6

To what extent do you agree or disagree with the following?

Q6A

How consumers use or misuse common household products is a large part of the risk posed to health

Completely disagree 1	1
2.....	2
Neither 3	3
4.....	4
Completely agree 5.....	5
Don't know/ No answer	9

Q6B

How consumers dispose of common household products is a large part of the risk posed to health

Completely disagree 1	1
2.....	2
Neither 3	3
4.....	4
Completely agree 5.....	5
Don't know/ No answer	9

Q6C

Chemicals in common household products pose a significant health risk no matter how they are used or disposed of by consumers

Completely disagree 1	1
2.....	2
Neither 3.....	3
4.....	4
Completely agree 5.....	5
Don't know/ No answer	9

Q6D

It's possible to take steps to prevent or lower the health risk posed by common household

Completely disagree 1	1
2.....	2
Neither 3.....	3
4.....	4
Completely agree 5.....	5
Don't know/ No answer	9

Q6F

It is possible to test for some chemicals in your home that pose a health risk

Completely disagree 1	1
2.....	2
Neither 3.....	3
4.....	4
Completely agree 5.....	5
Don't know/ No answer	9

Q7

Many of us know something is a health risk, but we don't always do anything about it. If you had information about possible health risks in and around your home, and steps you could take, how likely would you be to make changes to reduce the risk?

Not at all likely 1	1
2.....	2
Moderately likely 3.....	3
4.....	4
Extremely likely 5	5
Don't know / No answer	9

Q7B

If... Q7 = 1,2,3

Could you expand on why it is you feel this way?

Don't understand the information/too complicated.....	1
Contradictory information/confusing	2
Don't trust the information.....	3
Not enough time	4
Too expensive/not enough money	5
I rent my house/apartment so I don't have control to make certain changes	6

It doesn't seem that important.....	7
Don't understand the language well enough to know what to do	8
Don't think it will make that much of a difference	9
I never get around to it.....	10
Don't think it's that big of a problem	11
Other (please specify).....	77
Don't know / No answer	99

Q8

How confident are you that you know what steps to take to prevent or reduce the health risk to you and your family from environmental factors in and around your home?

Not at all confident 1	1
2.....	2
Moderately confident 3.....	3
4.....	4
Extremely confident 5	5
Don't know / No answer	9

Q9

Have you ever looked for information on what steps you can take to prevent or reduce risk from environmental contaminants in and around your home?

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

Q10

If... Q9 = 1

Generally, how helpful have you found the information to be in determining what to look for in possible health risks or steps you can take to reduce the risk to you and your family?

Not very helpful 1.....	1
2.....	2
Moderately helpful 3	3
4.....	4
Very helpful 5.....	5
Don't know / No answer	9

Q10B [1,9]

If... Q9 = 1 and Q10 = 1,2,3

What aspects about the information were not helpful?

Select all that apply	
Not enough information	1
Confusing/too technical.....	2
Not what I wanted to know	3
Lack of confidence in the source of information.....	4
Hard to find	5
Too much information/overwhelming.....	6

Not practical	7	
Didn't cover the impacts or consequences of exposure	8	
Other (please specify).....	77	
Don't know / No answer	99	X

Q10C

If... Q9 = 1 and Q10 = 4,5

What aspects about the information were helpful?

Please specify	77
Don't know / No answer	99

Q11 [1,17]

Have you personally taken any of the following steps in the past year to protect your health and the health of your family from environmental contaminants or factors in and around your home?

Select all that apply

Maintain a smoke free home	1	
Read all instructions and warning labels on products you buy.....	2	
Open windows and ensure proper ventilation	3	
Use protective equipment, such as gloves, when using chemical products	4	
Properly dispose of unused or expired pharmaceuticals/drugs.....	5	
Use products with fewer chemicals	6	
Increase frequency of cleaning/vacuuming/minimize dust.....	7	
Reduce time spent in problem location/area.....	8	
Talk to family/friends/neighbours	9	
Get information/do research (online or other sources)	10	
Follow all instructions and warning labels on products you buy.....	11	
Talk to a health professional.....	12	
Test for radon in your home	13	
Remove source of problem (e.g. carpeting, mould, chemical products).....	14	
Hire a professional to help with renovation issues (e.g., removal of asbestos, lead paint).....	15	
Take action to reduce radon levels if the level is high.....	16	
Other (please specify).....	77	
No steps taken	98	X
Don't know / No answer	99	X

Q11B

If... Q11 not = 99

What prompted you to take these steps?

Please specify	77
Don't know / No answer	99

Q12

If... Q11 not = 99 and Q9 = 1

Did you take these steps as a result of the information you heard or read?

Yes.....	1
----------	---

No	2
Partially	3
Don't know / No answer	9

Q13 [1,17]

If... Q11 = 98,99

What steps are you most likely to take to prevent or lower the health risk to you and your family from environmental factors in and around the home?

Select all that apply

Maintain a smoke free home	1	
Read all instructions and warning labels on products you buy	2	
Open windows and ensure proper ventilation	3	
Use protective equipment, such as gloves, when using chemical products	4	
Properly dispose of unused or expired pharmaceuticals/drugs	5	
Use products with fewer chemicals	6	
Increase frequency of cleaning/vacuuming/minimize dust	7	
Reduce time spent in problem location/area	8	
Talk to family/friends/neighbours	9	
Get information/do research (online or other sources)	10	
Follow all instructions and warning labels on products you buy	11	
Talk to a health professional	12	
Test for radon in your home	13	
Remove source of problem (e.g. carpeting, mould, chemical products)	14	
Hire a professional to help with renovation issues (e.g., removal of asbestos, lead paint)	15	
Take action to reduce radon levels if the level is high	16	
Other (please specify)	77	
No steps taken	98	X
Don't know / No answer	99	X

PREQ14

Sometimes there are things that keep us from getting the information we need or taking steps to prevent or reduce health risks from environmental factors in the home. To what extent have each of the following kept you and your family from taking action?

Q14A

Information hard to find	
Not at all 1	1
2	2
To a moderate extent 3	3
4	4
Completely 5	5
Not applicable (have not looked/ tried to make changes)	8
Don't know/ No answer	9

Q14B

Information is confusing/too technical/too complicated/too many competing messages	
Not at all 1	1
2	2
To a moderate extent 3	3

4.....	4
Completely 5	5
Not applicable (have not looked/ tried to make changes).....	8
Don't know/ No answer	9

Q14C

Information is not available when making decisions (e.g., at time of purchase)	
Not at all 1	1
2.....	2
To a moderate extent 3	3
4.....	4
Completely 5	5
Not applicable (have not looked/ tried to make changes).....	8
Don't know/ No answer	9

Q14D

Lack of control to make certain changes	
Not at all 1	1
2.....	2
To a moderate extent 3	3
4.....	4
Completely 5	5
Not applicable (have not looked/ tried to make changes).....	8
Don't know/ No answer	9

Q14E

Too time consuming to make changes	
Not at all 1	1
2.....	2
To a moderate extent 3	3
4.....	4
Completely 5	5
Not applicable (have not looked/ tried to make changes).....	8
Don't know/ No answer	9

Q14F

Too expensive to take steps/make changes	
Not at all 1	1
2.....	2
To a moderate extent 3	3
4.....	4
Completely 5	5
Not applicable (have not looked/ tried to make changes).....	8
Don't know/ No answer	9

Q15

If... Number of responses in Q14 with 4,5 chosen > 1

Which of these do you find to be the largest single barrier to taking action to reduce the health risk of products in and around your home?

Q14A = 4,5
Information hard to find 1

Q14B = 4,5
Information is confusing/too technical/too complicated/too many competing messages 2

Q14C = 4,5
Information is not available when making decisions (e.g., at time of purchase) 3

Q14D = 4,5
Lack of control to make certain changes 4

Q14E = 4,5
Too time consuming to make changes 5

Q14F = 4,5
Too expensive to take steps/make changes 6

Don't know / No answer 9

PREQ16

How much of a reason are each of the following for you to take steps to prevent or reduce health risks from environmental factors in the home?

Q16A

My health/the health of my family

Not at all 1 1

2 2

To a moderate extent 3 3

4 4

Completely 5 5

Don't know/ No answer 9

Q16B

It increases the value of my home

Not at all 1 1

2 2

To a moderate extent 3 3

4 4

Completely 5 5

Don't know/ No answer 9

Q16D

Someone else I know is doing it

Not at all 1 1

2 2

To a moderate extent 3 3

4 4

Completely 5 5

Don't know/ No answer 9

Q16E

It's good for the environment	
Not at all 1	1
2	2
To a moderate extent 3	3
4	4
Completely 5	5
Don't know/ No answer	9

Q16F

Someone prompts me to take action	
Not at all 1	1
2	2
To a moderate extent 3	3
4	4
Completely 5	5
Don't know/ No answer	9

Q17

Need for Information

Some people look for information while others do not. When you purchase a product, how often do you look for information about what these products contain before purchasing?

Always.....	1
Most of the time	2
Sometimes	3
Almost never	4
Don't know / No answer	9

Q18

How interested would you be in learning more about how to protect your health and the health of your family in and around the home?

Not very interested 1	1
2	2
Moderately interested 3	3
4	4
Very interested 5	5
Don't know / No answer	9

PREQ19

If... Q18 = 3,4,5

What types of environmental health factors in and around your home are you most interested in learning more about?

Select all that apply

Q19A [0,12]

If... Q18 = 3,4,5

Household products

Consumer product safety (e.g., children's toys, household furniture).....	1
Personal care products (e.g., cosmetics, shampoo).....	2
Air fresheners/room sprays/scented candles.....	3
Household chemicals (e.g., kitchen and bathroom cleaners).....	4
Oil, turpentine, paint, paint strippers/thinners	5
Lead contained in applied paint (e.g., on the surface of something within the home).....	6
Building materials/renovation projects (e.g., adhesives, sealants, insulation products).....	7
Materials used in hobbies/craft projects	8
Pesticides, herbicides, insecticides	9
Unused pharmaceuticals/drugs (human or veterinary)	10
Improper disposal of pharmaceuticals drugs (human and veterinary).....	11
Natural health products.....	12

Q19B [0,16]

If... Q18 = 3,4,5

Environmental Factors

Water Quality	1
Air Quality.....	2
Contaminated Soil	3
Radiation (including electromagnetic radiation)	4
Garbage/disposal of products	5
Radon gas	6
Wireless devices	13
Mould/humidity.....	7
Carbon monoxide	8
Food safety (e.g., safe handling practices and preparation).....	9
Cigarette smoke	10
Noise (e.g., loud toys, earbuds)	11
Wood smoke.....	12
Individual chemicals (please specify).....	78

Q19C [0,2]

If... Q18 = 3,4,5

Other (please specify).....	77	B
Don't know / No answer	99	BX

PREQ20

When looking for information on health risks (e.g., household chemicals, lead, carbon monoxide poisoning, radon, etc.) that may be present in your home, which sources would you prefer to access this information from?

Select all that apply

Q20A [0,11]

Internet

Search Engine (e.g., Google, Yahoo, etc).....	1	B
Health Canada website (e.g., healthycanadians).....	2	B
Other Government of Canada website.....	3	B
Provincial government website	4	
Municipal government website	5	
Website outside of Canada	6	
Environmental group website.....	7	
Consumer group website	8	
Health professional website.....	9	
Manufacturers.....	10	

Q20B [0,10]

Non-internet sources

Friends.....	1	
Home shows or consumer shows.....	2	
Health professionals	3	
Building contractors/Home inspectors/Realtors	4	
Manufacturers product label.....	5	
1-800-O-Canada	6	
Magazines, newspapers or books	7	
News media	8	
Retailers/At point of purchase	9	

Q20C [0,2]

Other (please specify).....	77	B
Don't know / No answer	99	BX

Q21 [1,16]

When looking for information on health risks (e.g., household chemicals, lead, carbon monoxide poisoning, radon, etc.) that may be present in your home, what format or source would you prefer to use to access this information?

Select all that apply

Websites	1	
Pamphlets/brochures.....	2	
Instructional videos	3	
Podcasts/blogs	4	
Mobile apps.....	5	
Social media (e.g., Facebook, Twitter, Pinterest).....	6	
YouTube.....	9	
Trade shows.....	10	
Speak to a health professional	11	
Webinar	12	
Chemical and/or product search engine.....	13	
Email distribution list of latest information.....	14	
Product labels	15	
Other (please specify).....	77	B

PREQ22

Information Sources

When looking for information on health risks (e.g., household chemicals, lead, carbon monoxide poisoning, radon, etc.) that may be present in your home, how trustworthy do you think the following sources of information are?

Q22A

Product manufacturers/retailers

Not trustworthy at all 1.....	1
2.....	2
Somewhat trustworthy 3.....	3
4.....	4
Very trustworthy 5.....	5
Don't know/ No answer	9

Q22B

Health Canada

Not trustworthy at all 1.....	1
2.....	2
Somewhat trustworthy 3.....	3
4.....	4
Very trustworthy 5.....	5
Don't know/ No answer	9

Q22C

Non-profit health groups, such as the Canadian Cancer Society

Not trustworthy at all 1.....	1
2.....	2
Somewhat trustworthy 3.....	3
4.....	4
Very trustworthy 5.....	5
Don't know/ No answer	9

Q22D

Health professionals such as doctors and public health nurses

Not trustworthy at all 1.....	1
2.....	2
Somewhat trustworthy 3.....	3
4.....	4
Very trustworthy 5.....	5
Don't know/ No answer	9

Q22E

Non-profit environmental groups (e.g., Pollution Probe, David Suzuki Foundation)

Not trustworthy at all 1.....	1
2.....	2

Somewhat trustworthy 3.....	3
4.....	4
Very trustworthy 5.....	5
Don't know/ No answer	9

Q22F

Building contractors/Home inspectors/Realtors

Not trustworthy at all 1.....	1
2.....	2
Somewhat trustworthy 3.....	3
4.....	4
Very trustworthy 5.....	5
Don't know/ No answer	9

Q23

How interested would you be in an app for your mobile device (e.g., phone or tablet) with information about household chemicals and actions you can take to protect you and your family from potential risks in and around your home?

Not at all interested 1.....	1
2.....	2
Moderately interested 3.....	3
4.....	4
Extremely interested 5.....	5
Don't know / No answer	9

Q23B

If... Q23 = 3,4,5

If this type of app were available when would you be the most likely to use this information?

Before shopping for a specific product.....	1
While shopping for a specific product.....	2
After shopping for a specific product.....	3
Combination	4
Don't know / No answer	9

QDEMO

These last questions are for statistical purposes and we remind you that all your answers are completely confidential.

QBORN

In what year were you born?

Year	1	<
Don't know / No answer	9999	

QEDUC

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

Grade 8 or less 1
Some high school 2
High school diploma or equivalent..... 3
Registered Apprenticeship or other trades certificate or diploma..... 4
College, CEGEP or other non-university certificate or diploma 5
University certificate or diploma below bachelors level 6
Bachelor's degree..... 7
Post graduate degree above bachelor's level..... 8
Don't know / No answer 9

QINCOME

Which of the following categories best describes your total household income? That is, the total income of all persons in your household, before taxes?

Under \$20,000 1
\$20,000 to just under \$40,000 2
\$40,000 to just under \$60,000 3
\$60,000 to just under \$80,000 4
\$80,000 to just under \$100,000 5
\$100,000 to just under \$120,000 6
\$120,000 to just under \$150,000 7
\$150,000 and above..... 8
Don't know / No answer 9

QHOME

Which one of the following categories describes your home?

A single-family house detached from any other house..... 1
A single-family house attached to one or more houses, for example a townhouse or duplex..... 2
An apartment building or condominium no more than four stories..... 3
An apartment building or condominium five or more stories..... 4
A mobile home or trailer 5
Other (please specify)..... 77
Don't know / No answer 99

QOWNRENT

Do you own or rent your home?

Own it..... 1
Rent it 2
Don't know / No answer 9

QBORNCAN

Were you born in Canada?

Yes..... 1
No..... 2

Don't know / No answer 9

QLANG [1,3]

What is the language you speak most often at home?

Select all that apply

English..... 1
French..... 2
Other (please specify)..... 77
Don't know / No answer 99 X

QCHILD

Are you the parent or legal guardian of any children currently living in the household? If so, how many?

Yes (please enter number of children) : 77 >
No 98
Don't know / No answer 99

QCHILDB [1,5]

Parents, QCHILD

What are the ages of children in the home?

Select all that apply

6 and under 1
7 to 12..... 2
13 to 15..... 3
16 to 18..... 4
19 or older 5
Don't know / No answer 9 X

QSENIOR

Are there individuals living in your home who are 65 years of age or older?

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

QHRISK

If... QCHILDB not = 1 and QSENIOR not = 1

Are there individuals living in your home who are vulnerable to health risks?(e.g., children and pregnant women, Indigenous peoples, seniors)?

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

QPOSTC

What are the first 3 digits of your postal code?

- Please specify : 1
- Don't know / No answer 9

QGENDR

Are you...?

- Male..... 1
- Female 2
- Other..... 3
- Don't know / No answer 9

THNK

This completes the survey. On behalf of Health Canada, thank you very much for your participation.

Please note that information included in these questions should not be considered as advice, nor should you act on any of the information in this survey. Should you be interested in learning more about environmental health issues in and around your home, please refer to Health Canada's information on *Hazards in your Home*

<http://www.healthycanadians.gc.ca/healthy-living-vie-saine/environnement/environnement/home-maison/hazard-risque-eng.php>

APPENDIX B

FOCUS GROUP RECRUITMENT SCRIPT

INTRO

<RINTRO: [PRESTRATE = 1]**Time and Date:** Wednesday, February 22th from 5:30 p.m. to 7:30 p.m.
Location: CRC Research House, 1867 Yonge Street, Suite 200, Toronto, Ontario M4S 1Y5[ELSE]**Time and Date:** Wednesday, February 22th from 5:30 p.m. to 7:30 p.m
Location: CRC Research House, 1867 Yonge Street, Suite 200, Toronto, Ontario M4S 1Y5>

Hello, my name is _____ from EKOS Research. We are conducting a series of focus group discussions with Canadians who are 18 years of age or older on behalf of the Government of Canada. The research is related to health issues of concern to all Canadians and we think that you'll find the topic interesting.

Your participation in the research is completely voluntary and your decision to participate or not will not affect any dealings that you may have with EKOS Research or the Government of Canada. The purpose of the research is to understand the opinions and experiences of Canadians not to sell any service or product.

The sessions will be audio and video recorded for research purposes. Representatives of the Government of Canada will also be observing the discussions. The information is being collected under the authority of the Privacy Act and other applicable privacy laws. The full names of participants will not be provided to the government or any other third party. Also, the results from the discussions will be grouped together in a report, which will contain non-identifying information. May I continue?

Yes..... 1
No..... 2 ->THNK2

Q1

The session will last between an hour and a half and two hours and an incentive is offered for participation. May we have your permission to ask you some further questions to see if you fit in our study?

Yes..... 1
No..... 2 ->THNK2

QGENDR

<ISEX: [{ \$contexte{ip} =~ /192.168.0.?/ }]Record gender of respondent (DO NOT ASK)[ELSE]Are you...>

Male..... 1
Female 2

QAGEX

May I have your year of birth, please?

RECORD YEAR : 77 >
REFUSED 99

QAGEY

Hesitant

If... QAGEX = 99

Would you be willing to tell me in which of the following age categories you belong?

Under 18 years..... 1 ->THNK2
18 – 34 years..... 2
35 – 55 years..... 3
55+ years 4
REFUSED 9

QEDUC

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

Grade 8 or less 1
Some high school 2
High school diploma or equivalent..... 3
Registered Apprenticeship or other trades certificate or diploma..... 4
College, CEGEP or other non-university certificate or diploma 5
University certificate or diploma below bachelors level 6
Bachelor's degree..... 7
Post graduate degree above bachelor's level..... 8
Don't know / No answer 9

QINCOME

Which of the following categories best describes your total household income? That is, the total income of all persons in your household, before taxes?

Under \$20,000 1
\$20,000 to just under \$40,000 2
\$40,000 to just under \$60,000 3
\$60,000 to just under \$80,000 4
\$80,000 to just under \$100,000 5
\$100,000 to just under \$120,000 6
\$120,000 to just under \$150,000 7
\$150,000 and above..... 8
Don't know / No answer 9

QCHILD

Are you the parent or legal guardian of any children currently living in the household? If so, how many?

Yes (please enter number of children) : 77 >
No 98

Don't know / No answer 99

QCHILDB [1,5]

Parents, QCHILD

If... QCHILD = 77

What are the ages of children in the home?

Select all that apply

- 6 and under 1
- 7 to 12..... 2
- 13 to 15..... 3
- 16 to 18..... 4
- 19 or older 5
- Don't know / No answer 9 X

Parents of kids six or younger

Others

Q2

Are you or is any member of your household or immediate family employed in:

Q2A

Government of Canada

- Yes..... 1
- No..... 2

Q2B

An advertising agency

- Yes..... 1
- No..... 2

Q2C

A market research company

- Yes..... 1
- No..... 2

Q2D

The media (Print, Radio, TV, Internet)

- Yes..... 1
- No..... 2

Q2e

Working in the field of health care

- Yes..... 1
- No..... 2

Q3

Participants in group discussions are asked to voice their opinions and thoughts. How comfortable are you in voicing your opinions in front of others, in English? Are you...

- Very Comfortable..... 1
- Comfortable..... 2
- Fairly Comfortable 3
- Not Very Comfortable..... 4 ->THNK2
- Very Uncomfortable..... 5 ->THNK2

Q4

Have you ever attended a focus group or one to one discussion for which you have received a sum of money?

- Yes..... 1
- No..... 2

Q5

If... Q4 = 1

When did you last attend one of these discussions that was sponsored by the Government of Canada?

- Please specify : 77 >N
- Months..... 1
- Years..... 2
- Never 999

- Within last 6 months, thank and terminate 1 ->THNK2
- Continue 99

Q5B

If... Q4 = 1 and Q5 not = 999

Have you attended more than 6 of these discussions that were sponsored by the Government of Canada?

- Yes..... 1 ->THNK2
- No..... 2

QFOCUS

The focus group is an hour and a half in length, but we are asking that all participants arrive 10 minutes prior to the start time of the session. Are you able to be at the facility 10 minutes prior to the session time?

- Yes..... 1
- No..... 2 ->THNK2

QTELE

We are providing each participant with a \$75 cash incentive for their participation, although late arrival (i.e., more than a few minutes) may result in not being able to participate or receive the incentive. Replacements are not permitted and you will need to bring ID, which you may be asked to present on arrival for the discussion. The group will be taking place :

<RRECRUIT: [PRESTRATE = 1] Wednesday, February 22nd from 5:30 p.m. to 7:30 p.m.

Location: CRC Research House, 1867 Yonge Street, Suite 200, Toronto, Ontario M4S 1Y5[ELSE] Wednesday, February 22nd from 7:30 p.m. to 9:30 p.m.

Location: CRC Research House, 1867 Yonge Street, Suite 200, Toronto, Ontario M4S 1Y5>

We will be giving you a reminder telephone call a day or two prior to your group discussion. Is this the best number at which to reach you?

Yes..... 1
No, please provide alternate phone number : 2

FNAME

Please provide your first and last names.

NOTE TO INTERVIEWER: Confirm proper spelling. Ensure proper capitalization (IE: not all upper or lowercase).

Name : 1

THNK

If you have any questions or something comes up and you can no longer participate in the discussions, please let us know by calling us toll-free at 1-800-388-2873 or by sending an e-mail to rzito@ekos.com. Thank you for your cooperation and time.

End of Interview

Completion..... 1 D

THNK2

If... QEND is empty

I am very sorry, but due to the parameters of the study we will not be able to include you in the focus groups.

QFIL2

If... QEND is empty and QFIL = 1,2

Thank you for your cooperation! <QFIL2: [QFIL = 1 and QEND is empty]We will contact you should space become available in the group.[ELSE]>

APPENDIX C

FOCUS GROUP GUIDE

HEALTHY HOME
FOCUS GROUP MODERATORS GUIDE
FEBRUARY 2017

1. INTRODUCTION (5 MINUTES)

- I represent EKOS Research and these groups are being conducted for the Health Canada to explore Canadians' understanding of common environmental factors in and around the home.
- This research will help the Government of Canada plan communications activities designed to make Canadians aware of various risk factors in the home and actions that can be taken.
- This group is part of a series of focus groups taking place across Canada. A large-scale survey with Canadians also took place. At times, I'll be talking about the results of the survey and asking for your opinion.
- This session will last about an hour and a half and we can start by going over the format and "ground rules":
 - ◇ Discussion is being audio taped so that I can listen closely to what you are saying and not be distracted by having to write things down.
 - ◇ All comments are confidential.
 - ◇ Please try to speak one at a time and be respectful of one another's opinions.
 - ◇ There are no right or wrong answers to the things we'll be talking about.
 - ◇ It's okay to disagree. Please speak up even if you think you're the only one who feels a certain way about an issue. Everyone may have different experiences and different points of view. And we want to hear everyone's opinions.
- Moderator's role: raise issues for discussion, watch for time and make sure everyone has a chance to participate. We do not work for the Government of Canada.
- Please make sure that your cell phones, notifications on smart watches, etc. are turned off. We ask for your full attention for this time, without distractions.

2. WARM-UP – (5 MINUTES)

1. Let's start by going around the table. Tell me your first name, and who you have in your household?

3. AWARENESS AND CONCERNS (10 MINUTES)

2. Do you feel there are any environmental factors or household products in and around your home that you are concerned about in terms of health risk to you or your family? What are they?
3. Which factors concern you the most in terms of risks to health? Why do these concern you more than others?
4. Do you feel you are well enough informed of risks associated with environmental factors or household products?

4. STEPS TO MITIGATE RISK (30 MINUTES)

5. Do you feel it's possible to take steps to prevent or lower the health risk of these factors? Do some environmental factors or household products pose a risk no matter what you do?
 - a. Is your level of concern tied up in any way with your ability to control the risk factor?
6. Do you currently take any action to prevent these risks?
 - a. Is it convenient to take these actions? Do they work in with your daily reality?
 - b. Do you feel like they make a difference?
 - c. What is the benefit to you and your family, the main reason you are taking these steps?
7. How have you decided what steps you will take and what you won't. Are there some steps that are too much trouble or not reasonable to do?
 - a. Is it about feel you have control over these things
8. Are there any factors that are important reasons to you personally for taking steps to prevent or reduce health risks from environmental factors in the home?
 - a. The health of your family? Increasing the value of your home? Pressure/influence of friends, family, or neighbours? Good for the environment?
 - b. Which of these do you think are more important to you? Why?
9. Does cost ever get in the way of taking action? Are there some actions that are just too expensive to do (like a renovation to remove lead paint or asbestos) or that just add up over time (buying eco products)?

10. Are there things that you just aren't able to do but would like to, because you rent your home or live in a condo, for example, or just can't get anyone to help you with?
11. For those of you not taking any steps or for those of you who think you could do more, what are the things that hold you back from taking steps or making changes to prevent risk?
 - a. How much is it about know if something does pose a risk or not? Or knowing what to do about it?
 - b. Do you feel that it is up to others to address these things not you?

5. INFORMATION AND SUPPORT (30 MINUTES)

12. What got you started thinking about or taking steps to mitigate risk? Did you go looking for information or did you happen upon it or learn from friends and family?
 - a. What information influenced you the most? Why did this have such an impact on you? Was it the source or the way the information was presented? Did it make you think about the impacts or was it more practical about specific steps?
 - b. Have you ever talked to other people about the actions you have taken? Did you talk to them about the benefits of the steps taken?
 - c. What do you think is the most critical reason that would get people taking steps to reduce risk?
13. Some of you have already started making changes or continue to make decisions around environmental factors and household products. What additional types of things would be helpful to know in terms of taking more steps to reduce risk?
 - a. What support would you need to take these steps? If these were available, would you use them?
14. Where would you look for this information? What kind of format should they be in? What types of things should this information emphasize?
15. How useful have you found the information available to you?
 - a. Is it clear and straightforward or is it confusing?
 - b. Is it easy to find or difficult?
 - c. Does it have the right type of information and detail for what you need?
16. How trustworthy do you feel that the information you typically find is? What sources or types of information do you tend to trust the most? Why or why not?
17. Is there a format that works best for you when you are trying to use this type of information? (Product label, video, brochure?) Why?
18. When do you want to have that information in the store? When you are planning?
19. In the survey we found that about 4 in 10 thought that a mobile app with this type of product information could be useful, but interest was not huge? Why do you think that is? Would it be something you would use? Why or why not?

6. CREATIVE/COMMUNICATIONS TESTING (30 MINUTES)

Now we are going to look at some concepts from the Government of Canada and get everyone's reaction to them. Your feedback is important and will feed into developing some new materials to help Canadians take action to protect themselves from environmental factors in and around their home.

- Present sample calls to action and have available for reference during discussion for each concept
- Present three concepts for overall campaign direction
- Discussion of each concept (what resonates with you, what images should be used?)
- Suggestions and recommendations

20. Remember that there are no right or wrong answers here. Everybody has an equally valid opinion.

- a. Show and go through each concept individually. Rotate order each time
- b.
- c. What do you think of it? What is your first impression of it?
- d. What stands out most or first to you?
- e. What strikes you about it? What do you like/not like about it?
- f. How about the message? Is it clear what the concept is trying to tell you? Does it make you think about taking action? Is the message clear / tells a clear story?
- g. How about the tone of the material? Likes/dislikes and why?
- h. Do the words effectively convey a message? What is the message?
- i. Does the concept encourage you to want to find out more about the program?
- j. Do you think that you would get in touch with them or go to their website to find out more about it if you saw this concept?
- k. Do you like the icon portrayed with the messaging?
- l. In general what images come to mind when you see each of these concepts? What images would encourage you to take action?
- m. Do you think that this is a good overall approach? Likes/dislikes and why?

21. Of the material, looking at them now side by side, which one do you think is the best overall concept? Which one does the best job of getting your attention? Of conveying a clear message to find out more or think about the program? Why?

7. WRAP UP (2 MINUTES)

22. Is there anything that we haven't talked about or that you would like to add?
23. Is there anything that we haven't talked about that you want to talk about before we go?

THANK YOU

APPENDIX D

COMMUNICATIONS MATERIALS

Your Feedback is Important

The Government of Canada is developing some new materials to help Canadians take action to protect themselves from environmental factors in and around their home.

Sample Calls to Action Throughout the Three Concepts

- Install a carbon monoxide detector in your home.
- Avoid mould by cleaning up spills and leaks right away.
- Test for radon.
- Ventilate - Open windows when painting, varnishing or installing new carpets.
- Household chemical safety - Read the label and follow instructions for use, storage, and disposal.
- Let tap water run until it is cold before using it for drinking and cooking.

Concept 1:

Care for your home health as you would for your own health.



Descriptor

- You are where you live.
- Connect your commitment to personal health to the need for a healthy home.

Images

- Use personal health and home health images and words to convey concept.

Concept 2:

Healthy home first aid kit.



Descriptor

- Administer basic First Aid to your home to keep you and your family healthy.

Images

- The healthy home kit using first aid ideas, images and icons.

Concept 3:

You are empowered.



Descriptor

- You are in charge. Be proactive. Your health and that of your family is in your own hands.

Images

- Images reflecting personal empowerment.
- Superhero helping to keep your home healthy.