



Health Santé  
Canada Canada

# Healthy Home Environmental Health Survey

## Executive Summary

### Prepared for Health Canada

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Canada 

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March 2022

Health Canada commissioned Kantar to conduct a public opinion research survey assessing Canadians' knowledge, awareness and behaviours on environmental health issues. This study was conducted online with 2,187 Canadians. 1,502 were drawn to be reflective of the population from age, gender and regional perspective and the remaining n=685 included an oversample of each of the following groups: Parents/guardians of children aged 6 and under (n=153), pregnant people or people planning to become pregnant in the next 6 months (n=190), seniors (65 years or older) (n=152), and newcomers to Canada (in Canada 5 years or less) (n=190)

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# 1. Executive Summary

## 1.1. Research Purpose and Objectives

### 1.1.1. Background

The Chemicals Management Plan (CMP) is a jointly managed, (Health Canada and Environment and Climate Change Canada) horizontal initiative aimed at reducing the risks posed by chemicals to Canadians and their environment.

Health Canada works to increase the public's awareness of the risks associated with chemicals and pollutants, as well as proposing actions that could be taken by Canadians to reduce their exposures.

In 2017, an online survey was conducted to assess Canadians' knowledge, awareness and behaviours on environmental health issues. Results of this survey helped to shape the Healthy Home campaign that was launched in 2019. The Healthy Home campaign provides science-based information to Canadians that motivates them to take action to protect themselves and their families from chemicals and pollutants in and around the home. The campaign aims to move from awareness to actual behaviour change.

The results of the survey will serve as a baseline to help the program measure its effectiveness under a renewed CMP. It is essential to establish a baseline of the perceptions of the health risks of chemicals in order to effectively tailor the engagement and outreach with Canadians, including the most vulnerable. Specifically, the results will help continue to shape the Healthy Home campaign into its next phase.

### 1.1.2. Research Objectives

The overall objective of this research was to determine Canadians' awareness and understanding of chemicals and pollutants, as well as their actual behaviours related to these risks at home. More specifically, the survey was designed to address the following objectives:

- Assess target audience's knowledge of environmental health issues;
- Determine which environmental health issues are of concern to Canadians;
- Identify Canadians' current environmental health protective behaviours;
- Identify barriers and motivators to taking action to reduce the health risks from possible contaminants in the home;
- Discover how Canadians prefer to receive their information on this topic; and
- Compare results, where possible, with baseline surveys from 2016 and 2017.

## 1.2. Summary of Findings

### Product related concerns

The vast majority of Canadians were able to identify that some common household products pose a health risk (89%). Primary products of concern include pesticides (74%), lead contained in paint (69%), household chemicals/cleaners (60%), and/or paint strippers/thinners (60%). Only half (50%) were aware that certain chemicals in building materials like adhesives, sealants, or insulators could pose health risks.

Fewer were able to identify that certain chemicals in home fragrance (36%), personal care products (28%), craft/hobby materials (24%), composite wood products (24%), and/or natural health products (15%) may pose health risks, while one-in-ten (11%) did not think any of the previously mentioned products posed health risks.

### **Environment related concerns**

Canadians identified common environmental threats as health risks, including cigarette smoke (77%), carbon monoxide (77%), mould/humidity (72%), asbestos (70%), radon gas (64%), and radiation (64%). Close to half also identify cannabis smoke (51%), putting batteries/lightbulbs/chemical products in the garbage (49%), or flushing/throwing out pharmaceuticals and medications (46%) as health risks. Fewer are concerned about wood smoke (39%) or single use plastics (34%), while environmental risks like indoor air (23%), outdoor air (18%), drinking water (16%), or soil (11%) rank lowest among health concerns. While this list is not directly comparable to 2017 results, it does appear that Canadians' concerns about carbon monoxide and cigarette smoke have increased since the last wave of research (41-44% considered a health risk in 2017).

### **Chemical related concerns**

Canadians are better able to recognize the health risks of chemical products than in 2017. Most identify lead (72%), mercury (71%), and formaldehyde (59%) as health risks. While not directly comparable due to different product lists in the 2017 survey, fewer (39-55%) identified these chemicals as a health risk in 2017. Between one-third and one-half of Canadians are concerned about other household chemicals, including benzene (47%), Bisphenol A (43%), boric acid (43%), flame retardants (41%), phthalates (35%), aluminum (32%), talc (31%) and triclosan (31%).

### **Environmental Health Concerns**

Canadians' primary environmental health concerns vary widely. When asked to choose their top three health concerns from the lists mentioned above, Canadians were most likely to say carbon monoxide was their primary health concern (17%), followed by mould/humidity (11%), and cigarette smoke (9%).

### **Personal Care Products**

More than half of Canadians (58%) are interested in the ingredients found in their personal care products, with 43 per cent saying they check ingredients lists of their products, while fewer say they avoid products with specific ingredients (30%). Among those who check or avoid specific ingredients in their personal care products, the most common ingredients of concern are formaldehyde (48%) and aluminum (43%).

### **Home Cleaning**

When cleaning their homes, Canadians generally say they follow most safety precautions. However, one-in-ten say they always (7%) or usually (7%) mix household chemical products together, which suggests a sizeable minority of Canadians are engaging in potentially hazardous practices.

### **Food Safety**

Most Canadians appear to take steps to keep harmful chemicals out of their food. The majority say they discard single use-plastic containers (79%), look for a "microwave safe" label on containers before microwaving (74% always or usually do), or store food in food-grade containers (62%). Many also say they use their range hood when cooking (60%) and let the tap run cold before drinking water (57%).

However, a sizeable number say they always or usually store foods in single-use plastics (36%), heat foods in single-use plastics (19%), or pour hot liquids into single-use plastics (18%).

### **Home Renovations**

Most (81%) Canadians have completed interior renovations in their home. This includes both minor projects like painting furniture or walls to more major projects like finishing a basement. Of these, there was an even distribution between renovations completed in the past 12 months (29%), past five years (26%), or more than five years ago (26%).

Both lead and asbestos may be present in Canadian homes built before 1990-1991. Asbestos was used in some homes built prior to 1990, while homes built before 1991 may contain lead-based paint. However, only one-third of Canadians say they always or usually consult a professional before removing asbestos (35%) or test for lead-based paint before removing or stripping paint from walls (31%). Of note, Canadians who own a home built prior to 1976 are the least likely to say they always or usually consult a professional about testing or removing asbestos (25% vs. 36-41% among those who own a home built after 1976). Similarly, these those who own homes built prior to 1976 are less likely to consult a professional about lead paint (25% vs. 35%). This suggests a significant number of Canadians with older homes are potentially putting their health at risk during renovations.

### **Environmental Health Behaviours**

When it comes to preventative measures, many Canadians do not appear to be engaging in environmental health testing, such as, testing for lead, radon or asbestos. Few Canadians are testing their drinking water, with just over one-in-ten saying they tested their water for potential contaminants (15%) or lead (13%). Even fewer (9%) say they have tested for radon in their homes.

In terms of inspection and monitoring behaviours, Canadians generally take more steps than they do for environmental health testing; however, uptake remains low. One-quarter complete annual inspections for their furnace (27%), air conditioner (23%), hot water heater (19%), or gas or wood fireplace (17%).

### **Protective Behaviours**

As part of the Healthy Home campaign, Health Canada recommended Canadians take ten simple steps to protect themselves from chemicals and pollutants in their environment. When asked specifically about how often they engage in these behaviours, over half of Canadians say they always or usually engage in healthy home behaviours, including keeping indoor moisture and humidity levels low (74%), disposing of chemical products according to municipal guidelines (69%), turning on exhaust fans or opening windows when showering (65%), cleaning mould with water and dish soap (62%), and taking unused pharmaceuticals to a pharmacy for disposal (54%).

Despite carbon monoxide being the number one safety concern of Canadians, less than half (47%) have installed a carbon monoxide alarm in their home. This also marks a decrease from 2016, when over half (57%) said they had a carbon monoxide detector in their home. Among the 47 per cent of Canadians that have installed a carbon monoxide alarm in their home, the majority (57%) installed one in a hallway outside sleeping areas or the main floor of the home (50%). Fewer said they installed alarms beside a fuel burning appliance (29%), in a bedroom (16%), or in a basement (4%).

## **Barriers and Motivators**

Barriers to maintenance of a healthy home may include awareness of health hazards. Despite the low awareness of many health risks outlined in this report, one-third of Canadians say they have no barriers because they currently maintain a healthy home (33%). Many Canadians (30%) also feel they do not have control over issues because they are renters. This signals that renters may not be aware of their provincial or territorial tenant rights.

These were also the most common responses in the 2016 research; however, while results are not directly comparable, the magnitude of those who feel confident in their ability to maintain a healthy home has decreased. This may be a function of Canadians now having greater awareness of various health risks.

When it comes to encouraging Canadians to maintain a healthier home, the majority cite personal health (61%) or the health of their family and children (51%) as their primary motivators. Relatedly, many (38%) were also motivated by fears about illness due to unaddressed risk and environmental concerns.

When it comes to motivators for implementing solutions, motivations included a better understanding of risks (44%), easy and free ways to address risks (42%), government funding (32%), and government incentives (29%).

## **Reaching Canadians about Environmental Health Issues**

Canadians look to a variety of sources for information on potential health risks in their home. The most common include search engines (39%), manufacturer product labels (29%), the Government of Canada website (25%), friends and family (24%), or the Public Health unit website (23%). This marks a departure from 2016, when manufacturer product labels were the most frequently consulted source of health risk information (38%) and few (5%) consulted the Government of Canada website. This suggests a significant number of Canadians may be aware of the Healthy Home campaign and trust the government to provide health risk information.

When looking for information on health risks, more than half of Canadians prefer the format of websites (57%), followed by YouTube (27%) and speaking to a health professional (24%). In 2016, websites were also the preferred source of information about health risks (65%). Since that time, YouTube, Facebook, and other social media sites are increasing in preference (0-17% in 2016 vs. 4-27% in 2021).

## **Parents of children six and under**

Young children are at increased risk from pollutants and chemicals due to their smaller bodies, breathing rate, heart rate, and developing organs. Consequently, parents or guardians of young children (0-6) are more likely than the general population to be concerned about the environmental health risks of cigarette smoke (89% vs. 76%), carbon monoxide (88% vs. 76%), and/or mould/humidity (82% vs. 72%), and are more likely to say they keep household chemical products out of reach and sight of young children (89% vs. 66%). Parents of young children are also more likely than the general population to follow almost all safety measures when completing renovations, including keeping children away from worksites.

Regarding other safety behaviours and concerns, parents of young children are quite similar in their behaviours to the rest of the general population (i.e., those with older or no children). This suggests parents of young children may benefit from greater education about mitigating risks, including not heating food in single-use plastics, not using boric acid in crafts, reducing mould growth, servicing woodstoves or fireplaces annually, and checking the Air Health Quality Index (AQHI) before planning outdoor activities.

## **Pregnant People**

As with young children, chemicals and pollutants pose an elevated risk for developing fetuses. Thus, Health Canada advises additional safety measures for pregnant people that include limiting chemicals and pollutants as much as possible, staying out of the house during repairs or renovations, and avoiding the microwaving and pouring of hot liquids into single-use plastic bottles, as these may melt or leach chemicals into food.

Pregnant people were more likely to say they had renovated in the past five years, but also more likely to agree they always or usually kept vulnerable people (including themselves) away from the worksite (80% vs. 65% among the general population).

However, when it comes to other safety behaviours of concern, pregnant people generally do not behave differently than the general population. This includes a minority that heat food in single-use plastics, mix household chemicals, or test for lead in house paint or drinking water. While pregnant people are directionally more likely than the general population to be concerned about boric acid (52% vs. 43%) these figures suggest half of pregnant people may not know this household chemical may pose developmental and reproductive health risks.

Not unexpectedly, pregnant people report greater barriers of cost (30% vs. 20% among the general population) and not having enough time (21% vs. 12%). As with the general population, pregnant people are most likely to look to social media for information on potential health risks in their home; however, pregnant people are also more likely to look to social media than the general population (24% vs. 11%) and to rely on friends and family as a source of information (40% vs. 23%). This supports continuing to use social media to target this population.

## **Seniors**

Older adults in Canada (55+) differ from younger and middle-aged Canadians (18-54) in a number of ways that suggest this group is more mindful of health risks in the home. While this survey did include a subsample of seniors (65+), there were no major differences between those 55+ and 65+ unless otherwise noted.

Older adults (55+) were more likely than those under 55 to say they were concerned about the health risks of all chemicals, pollutants, and personal care product ingredients included in this research. Those 55+ were also more likely to say they follow all safe renovation practices, have carbon monoxide alarms installed, and have their furnace, fireplace, or air conditioner serviced annually. They were also the least likely to report any practices that could compromise food safety. Encouragingly, those 55+ were also more likely than their 18-54 counterparts to say they bring unused pharmaceuticals to a pharmacy for disposal (67% vs. 44-48%).

## **People with pre-existing health conditions**

Canadians with pre-existing health conditions generally behaved very similar to those without health conditions. However, this group was understandably more concerned overall about the health risks of all chemicals, products, and pollutants included in this research.

The Government of Canada recommends that people with pre-existing health conditions consult the AQHI before planning outdoor activities. While those with a pre-existing health condition are more likely to check the AQHI during a heatwave than those without a health condition (25% vs. 15%), the low uptake of this tool may suggest a need for further awareness of risks and benefits.

## **Newcomers to Canada**

Newcomers to Canada differed significantly from the general population in a number of ways that suggest this population needs additional supports to mitigate their health risks.

More specifically, when compared the general population, newcomers to Canada:

- Are less likely to be concerned about the risks of most environmental concerns;
- Are less concerned about the health risks of chemicals;
- Are more likely than the general population to say they always or usually heat food in single-use containers (30% vs. 19%) or pour hot liquids into single-use containers (27% vs. 17%);
- Are less likely to say they usually or always take unused pharmaceuticals to a pharmacy for disposal (43% vs. 56%); and
- Are less likely to have installed a carbon monoxide alarm (34% vs. 47%).

However, newcomers say they are more likely than the rest of the population to read ingredient lists (60% vs. 40% among gen pop) and avoid specific ingredients (39% vs. 29%). They are also more likely to test for lead in their water (23% vs. 13% among gen pop) or house paint (14% vs. 7%).

When it comes to motivations for change, newcomers are more likely than the general population to be concerned about the health of their family and children (56% vs. 46%) and environment (48% vs. 35%), while a major barrier is being a renter so not having control over the issue of concerns (46% vs. 28%). When looking for information on health risks, as with the general population newcomers generally look towards search engines, but are also more likely to prefer almost all social media formats, including YouTube (45% vs. 26% among gen pop) and Facebook (20% vs. 14%).

## **Comparisons to Previous Years**

In 2016, Health Canada commissioned baseline research on healthy home behaviours titled Canadian Environmental Health Habits and Behaviours Survey. While this survey was similar in scope, changes the questionnaire mean that most results are not directly comparable. Where results are comparable, the following changes versus 2016 were observed:

- The number of Canadians who report installing a carbon monoxide alarm has decreased (47% in 2021 vs. 57% in 2016);
- In 2021 Canadians are looking to a wider variety of sources for information on potential health risks in their home, with search engines (39%), manufacturer product labels (29%), the Government of Canada website (25%), friends and family (24%), and/or the Public Health unit website (23%) being stated most often. In contrast, most Canadians consulted manufacturer labels in 2016 (38%) and few (5%) consulted the Government of Canada website; and
- Websites remain the preferred format for information on health risks but this has decreased vs. 2016 (57% vs. 65%). Since that time, YouTube, Facebook, and other social media sites have risen in preference (4-27% in 2021 vs. 0-17% in 2016).

Similarly, Health Canada commissioned a study in 2017 titled Chemicals Management and Environmental Health Issues Survey and Focus Groups respectively. Results were not directly comparable due to different sampling and questionnaires, but the following directional differences have been noted versus 2017:



- Canadians appear to be increasingly able to recognize the health risks of some chemical products, including lead (72% in 2021 vs. 55% in 2017), mercury (71% vs. 50%), and formaldehyde (59% vs. 39%);
- Canadians appear to be concerned about the environmental health risks of carbon monoxide (77% in 2021 vs. 44% in 2017), cigarette smoke (77% vs. 41%), and radon gas (64% vs. 28%); and
- Canadians are more likely to have tested their homes for radon (9% in 2021 vs. 5% in 2017).

### 1.2.1. Strategic Implications

The results of this research suggest some positive trends around awareness of health risks among Canadians. However, the current research suggests many knowledge gaps continue to exist that may be putting Canadians at greater risk of adverse health impacts from chemicals and pollutants. As such, there is an opportunity for the Healthy Home campaign to further support Canadians in a number of areas including:

1. A continued focus on environmental threats to health and how Canadians can address them.
  - While awareness about the risk of carbon monoxide has increased, less than half of Canadians have taken the step of installing a carbon monoxide alarm. Similarly, many Canadians now report concerns about asbestos, lead, and radon, but few take steps to test for these contaminants.
2. An increased focus on the risk of food safety, particularly as it concerns single use plastics.
  - Many Canadians are engaging in behaviours that risk chemicals leaching into their food and beverages, including pregnant people and parents of young children who are at particular risk. Further, single-use plastics rate low on the list of environmental health concerns among the majority of Canadians.
3. Increased outreach to vulnerable groups, including pregnant people, parents of young children, and people with pre-existing health conditions.
  - People in the aforementioned at-risk groups behave similarly to the general population when it comes to most behaviours, suggesting these populations could benefit from further information about risks and suggested precautions. Further, all of these groups are more likely than the general population to say they are motivated to change behaviours for their personal health or the health of their family, which suggests they will be receptive to receiving information on potential health impacts.
  - Encouragingly, seniors take more safety steps and are more conscientious overall about health risks than the general population.
4. Increased focus on newcomers to Canada who need additional supports mitigating health risks.
  - Newcomers were at a greater overall risk in almost all areas identified in this research. Look to better connect with this population in ways that speak to their primary concerns (personal, family, and environmental health) through online channels where they are more engaged.
5. Awareness remains a primary barrier for Canadians when it comes to maintaining a healthy home. One notable barrier is that of home ownership, with many Canadians saying health risks are out of their control because they rent their dwelling. This signals that these Canadians may not be aware of their provincial and territorial tenant rights or of tests and inspections they can complete independently. Renters may also not realize that there are many actions that they can personally take to create a healthier home environment. Given that newcomers to Canada are

disproportionately likely to be renters, addressing knowledge gaps among renters will also likely have a positive impact on newcomers' health risks.

### **1.3. Methodology**

An online survey was conducted among 2,187 Canadians aged 18 years and older;

1,502 were drawn to be reflective of the population from age, gender and regional perspective and the remaining n=685 included an oversample of each of the following groups: Parents/guardians of children aged 6 and under (n=153), pregnant people or people planning to become pregnant in the next 6 months (n=190), seniors (65 years or older) (n=152), and newcomers to Canada (in Canada 5 years or less) (n=190).

This survey was conducted online using a panel sample. As such this constitutes a non-probability sample, and margin of error therefore cannot be calculated and conclusions from these results cannot be generalized to any population.

A pre-test was undertaken on January 21, 2022 obtaining 10 English and 10 French completions, including probing questions. Based on the results of the pre-test, no changes were required and as such the results of the 20 completes were included in the final data set. The survey was in field from January 24 – February 7, 2022.

A detailed methodology can be found in Chapter 4.1.

#### **1.3.1. Sub-group analyses, statistical significance and rounding**

Analysis was undertaken to establish differences between the total population that was surveyed and a number of demographics within this group. More specifically analysis was undertaken to identify any differences based on age, gender, region, household income, those with children in their household, those with disabilities, those with a health condition, dwelling type, home ownership, dwelling age, those who have completed home renovations. Analysis was also undertaken to determine differences between the general population and groups of interest/vulnerable populations which include parents/guardians of children aged 6 and under, pregnant people or those planning to become pregnant in the next 6 months, seniors, and newcomers to Canada. Exact breaks can be found in the detailed tables. Only differences significant at the 95% confidence level are presented in this report. Any differences that are statistically significant (t-test) between these subgroups are indicated by denoting the column letter within the tables throughout the report. For example, in the table below Older Canadians (55+) are significantly more likely to say they have installed a carbon monoxide alarm in their home than younger and middle-aged Canadians (18-54).

	Total (A)	18-34 (B)	Age	
			35-54 (C)	55+ (D)
<b>Base = actual</b>	(2187) %	(732) %	(767) %	(688) %
Installed a carbon monoxide alarm in your home	47%	37%	43%	58% BC

The numbers presented throughout this report are rounded to the closest full number. Due to this rounding, in some cases it may appear that ratings collapsed together are different by a percentage point from when they are presented individually, and totals may not add up to 100%.

#### 1.4. Contract Value

The total contract value for the project was **\$99,996.32** including applicable taxes.

#### 1.5. Statement of Political Neutrality

I hereby certify as a representative of Kantar that the deliverables fully comply with the Government of Canada political neutrality requirements outlined in the Directive on the Management of Communications and Procedures for Planning and Contracting Public Opinion Research. Specifically, the deliverables do not include information on electoral voting intentions, political party preferences, or standings with the electorate or ratings of the performance of a political party or its leaders.



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