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# ***National Radon Awareness Survey 2023***

## **Executive Summary**

### **Prepared for Health Canada**

Supplier Name: Environics Research  
Contract Number: HT372-22-5581  
Contract Value: \$119,511.51 (including HST)  
Award Date: 2022-12-08  
Delivery Date: 2023-03-20

Registration Number: POR 094-22

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**Canada**

## **National Radon Awareness Survey 2023 – Executive Summary**

Prepared for Health Canada by Environics Research

March 2023

This public opinion research report presents the results of a dual-mode telephone and online survey conducted by Environics Research. The online survey was open from January 31-February 9 and the telephone survey was open from January 24-February 19, 2023.

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PDF:

Cat. No. H14-436/2023E-PDF

ISBN 978-0-660-43164-2

Cette publication est aussi disponible en français sous le titre *Enquête nationale sur les connaissances liées au radon 2023 - Rapport final*

PDF:

Cat. No. H14-436/2023F-PDF

ISBN 978-0-660-43165-9

## Executive summary

### Background and objectives

Radon is the second leading cause of lung cancer after smoking and the leading cause among people who do not smoke. Health Canada (HC) leads an ongoing National Radon Program (NRP) with the goal of reducing the health risks associated with radon exposure.

Public opinion research was previously conducted in 2007, 2013 and 2018 to understand knowledge and awareness of radon, and its associated risks among Canadians. Health Canada identified the need to conduct follow-on research, to help evaluate and measure the effectiveness of the efforts of the NRP over the last five years. The purpose of this research was to obtain insights into the knowledge, awareness, attitudes and behaviours of Canadians regarding radon. More specifically, the objectives of the research were:

- To collect data that can be compared to the most recent (2018) wave of telephone research for radon awareness, attitude and behaviour levels
- To set a baseline using an online survey methodology, so the survey can be fully transitioned to an online format going forward and allowing for an understanding of modal differences
- Measure knowledge levels of Canadians in terms of what radon is and where it is found
- Measure knowledge levels of how radon can be detected/measured, and what can be done to effectively reduce radon levels (prevention and remediation)
- Determine levels of actions/behaviours taken to reduce radon exposure in the home
- Determine levels of future actions/behaviours to be taken to reduce radon exposure in the home (sources of information/assistance; type of information/assistance required to take action; would they test or mitigate if they found high levels); review approaches to encourage radon action among homeowners and combat apathy
- Determine the proportion of respondents who have tested and or remediated their home for radon; and,
- Determine perceptions of the different level of government's responsibilities (federal, provincial/territorial, municipal) regarding education, remediation, and current sources of radon information for Canadians.

### Methodology

The survey was conducted by Environics Research Group using a dual mode approach. An online survey of 1,200 was conducted from January 31 - February 9, 2023, and a telephone survey of 805 was conducted from January 24 - February 19, 2023. The sampling method was designed to complete 1,200 online and 800 telephone interviews with the target audience of Canadians 18 years of age and over living in private households, in the 10 provinces and, for the telephone survey, the three territories. Respondents were screened to ensure they were household decision-makers and residents of single-family dwellings with ground floor or basement living space, as these are the primary audience for radon messaging. The base samples were stratified across five designated regions to ensure meaningful data and analysis at the regional level. Unlike previous telephone surveys, these surveys did not oversample in identified radon-prone areas.

The following completions were achieved:

Region	Total	Atlantic	Quebec	Ontario	MB/SK	Alberta	BC	Territories
# of online interviews*	1,200	100	225	450	99	125	197	4
% of online interviews*	100%	8%	19%	38%	8%	10%	16%	<1%
# of telephone interviews	805	81	181	303	67	67	86	20
% of telephone interviews	100%	10%	22%	38%	8%	8%	11%	2%
Margin of error at 95% CI	±3.4	±10.8	±7.2	±5.6	±11.9	±11.9	±10.5	±21.8

\*Online surveys with opt-in panels use non-probability samples and thus a margin of sampling error is not cited.

The data are statistically weighted to ensure the sample is as representative of this population as possible (region, gender and age of primary household maintainer for private owned and rented households in Canada) according to the most recently available Census information. A more detailed description of the methodology is presented at the back of the report, along with a copy of the questionnaire (see Appendix).

## Cost of research

The cost of this research was \$119,511.51 (HST included).

## Key findings

### Radon knowledge and awareness

**Note: The following findings relate to the new online baseline survey; telephone tracking results are provided throughout the report.**

- A majority of six in ten (60%) Canadian householders say they are at least somewhat aware of radon. They are most likely to have heard radon is toxic (24%), a gas (23%) or that it can enter the home (16%).
- Among those aware of radon, the media is the most cited source (45%) for hearing or seeing something about radon. The Internet is a notable source of awareness, mentioned by around one in ten (13%) respondents.
- Canadian householders were asked to self-assess their level of radon knowledge; one-third (32%) say they know at least a little about it and five percent say they know a lot. Three in ten (30%) Canadian householders rate themselves as knowing almost nothing about radon.
- Notable proportions know most true statements about radon are true and that false statements are false but are split on whether it is difficult to remove radon from a home. When it comes to answering correctly, most householders are likely to know it is true that exposure to radon is the leading cause of lung cancer among people who do not smoke and that it can be found in most homes; they are also likely to know it is false that radon is off gassed from carpets, furniture and paints.

- When asked where to purchase a DIY radon testing kit, householders are most likely to mention a home improvement store (60%), followed by a specialty retailer (38%), government agency (32%) or online retailer (30%).
- When asked to indicate how long a testing kit needs to be kept in the home to accurately detect the level of radon, a notable proportion of half (51%) are unsure. Just under four in ten (37%) indicate a period under three months, while 14 percent say the correct answer of three months or longer.
- When asked how to reduce radon levels at home, common answers include increasing ventilation (45%) sealing cracks or other openings (44%), installing a radon reduction system (34%), and covering exposed soil in crawlspaces (33%).

## Experience with radon

- Close to one in ten (8%) Canadian householders have heard or seen something about radon levels in their community; a strong majority (83%) have not heard anything about this.
- Over four in ten (44%) who had heard something about radon say they heard about possible health issues linked to radon, and three in ten have either heard their local radon levels are high (31%) or that radon is a public or government concern (30%).
- Almost one in ten (8%) householders say they have had the radon levels in their home tested, and an additional 19 percent have considered doing so.
- DIY testing kits remain the most-cited method of testing for radon, used by four in ten (39%). Many whose tests showed moderate/high levels went on to taken action.
- Canadian householders who have not tested for radon are most likely to say they had simply not thought about it (48%) or do not have enough information to know what to do (35%). There is a notable proportion (18%) of householders who feel their home is well ventilated/aren't worried about radon.
- When hypothetically asked if they would purchase a remediated home, four in ten (42%) would be at least somewhat likely to buy a home where the owner had paid to reduce radon levels. Among this group, less than one in ten (9%) say they would *definitely* purchase this type of home.

## Radon information

- The majority (84%) of Canadian householders are unaware of programs or activities to help residents learn about or deal with radon; just under one in ten (8%) have heard of these and the same proportion (8%) are not sure. Those aware are more likely to think it is the provincial government (61%) who sponsors/funds such programs and activities, distantly followed by the federal government (40%) or municipal government (33%).
- Close to two in ten (16%) have taken steps to learn about radon and are most likely to turn to the Internet to get more information about radon. To seek information, three in ten (32%) used either Health Canada or their provincial government/ministry of health (31%) as sources. Around one quarter (23%) asked friends or family and two in ten (21%) checked in the media. Google (17%) or other internet sites (12%) are also notable sources.
- This year, all householders were asked if after the survey they felt motivated to get their home radon levels tested. Half (50%) say yes; two in ten (22%) say no.

- Requiring radon tests for selling or buying a home and being made aware of high levels in the community are considered the most effective ways to encourage remediation. Both statements are considered very effective by almost half (47-48%) of online respondents.

## Modal differences

Differences between modes can be summarized with the following:

**Differentiating levels of uncertainty:** The proportions indicating “not sure” often differ by mode. More specific questions, such as knowing what people can do to reduce the amount of radon in a home, or where to buy a DIY testing kit results in more uncertainty among telephone respondents – who may find it difficult to come up with answer off the top of their head. For online respondents, knowing that “not sure” is a possible option allows them to select it as an answer for yes/no questions such as “do you recall ever hearing or seeing something about radon?”. This is not likely to be the case amongst phone respondents.

**Visual of list:** Presenting a list to online respondents (vs. telephone respondents responding top-of-mind) increases the number of options selected, resulting in more response dispersion compared to phone results.

**Reading out longer statements:** The telephone methodology does invite a faster, “gut reaction,” while those responding online have the chance to read the statement thoroughly, impacting how they may rate impact/effectiveness of statements or make decisions on truth/false questions.

**Radon knowledge and awareness:** Awareness of radon is the same for phone and online respondents. There are a few differences in top-of mind mentions of what was heard/seen about radon: telephone respondents are more likely to spontaneously mention it comes from the earth/ground; online respondents are more likely to say they are not sure where they heard or saw something about radon.

In other questions, some differences can be attributed to online respondents seeing a range of possible answers. Respondents who answered online are more likely than telephone respondents to indicate generally that detectors are available, and less likely to mention purchasing a home testing kit, than are respondents on the phone. And, deepening the theme that it is harder for phone respondents to come up with ideas off the top of their head, they are more likely than online respondents to say they are “not sure” how to find out if there is a high level of radon in the home. Arguably, seeing a list of potential responses is an *aide-mémoire* to actual knowledge, whereas being put on the spot in a telephone survey may result in only being able to remember one or two top-of-mind things, while the person may actually know more.

While about half of phone respondents mention a home improvement store such as Home Depot as a source for radon detection kits, online respondents are likely to spread their choices for how to get the home tested for radon over several more options. For example, while only three percent of phone respondents spontaneously mention specialty retailers (five percent in 2018), four in ten (38%) online respondents select this response from a list. This same pattern is present with purchasing DIY testing kits at government agencies (32% online; 4% phone), online retailers (30% online; 7% phone), public health offices (23% online; 3% phone), as well as other retailers and lung associations.

In this baseline survey, online respondents appear to be less likely than those on the phone to identify false statements. For example, while six in ten phone respondents state it is false that radon is a natural gas in furnaces and water heaters, or that it is found in air conditioners and refrigerators, fewer than half knew the same online. It remains to be seen if this continues in future iterations of the survey.

**Experience with radon:** When presented with a list of options, almost three times as many online respondents than those interviewed by telephone recall hearing that people in their community should get their radon tested, or have heard about possible health problems caused by radon.

Having tested or considered testing for radon is consistent across modes, though online respondents are still more likely to express uncertainty. When asked for reasons why they have not tested their home's radon level, online respondents, shown a list, validate top-of-mind reasons offered by phone respondents. For example, consistent levels in both modes mention not knowing what to do/not having enough information (38% phone; 35% online). However, almost half of online respondents indicate they just "have not thought about it", compared to two in ten phone respondents, which may be due to social desirability bias in the telephone methodology, or possibly feeling this is the same as "don't know."

**Information about radon:** Online respondents are more likely (61%) than phone respondents (24%) to indicate the provincial government is the sponsor of programs/activities to help residents learn about radon, when they see a list. Telephone respondents are more likely to mention the federal government as being responsible, but also more likely to be unsure in this question.

When asked to rate how effective householders feel seven possible statements would be in convincing people to have their radon levels reduced, the proportions saying 'effective' are smaller among online respondents than those who answered over the phone. This speaks to the possibility that having longer to read each factor/statement might impact ratings of effectiveness, and also the social desirability bias inherent in the telephone methodology.

## Political neutrality statement and contact information

I hereby certify as a Senior Officer of Environics Research 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 contain any reference to electoral voting intentions, political party preferences, standings with the electorate, or ratings of the performance of a political party or its leader.

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**Supplier name:** Environics Research Group  
**PWGSC contract number:** HT372-22-5581  
**Original contract date:** 2022-12-08

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