

Radon is a known carcinogen (Group 1)

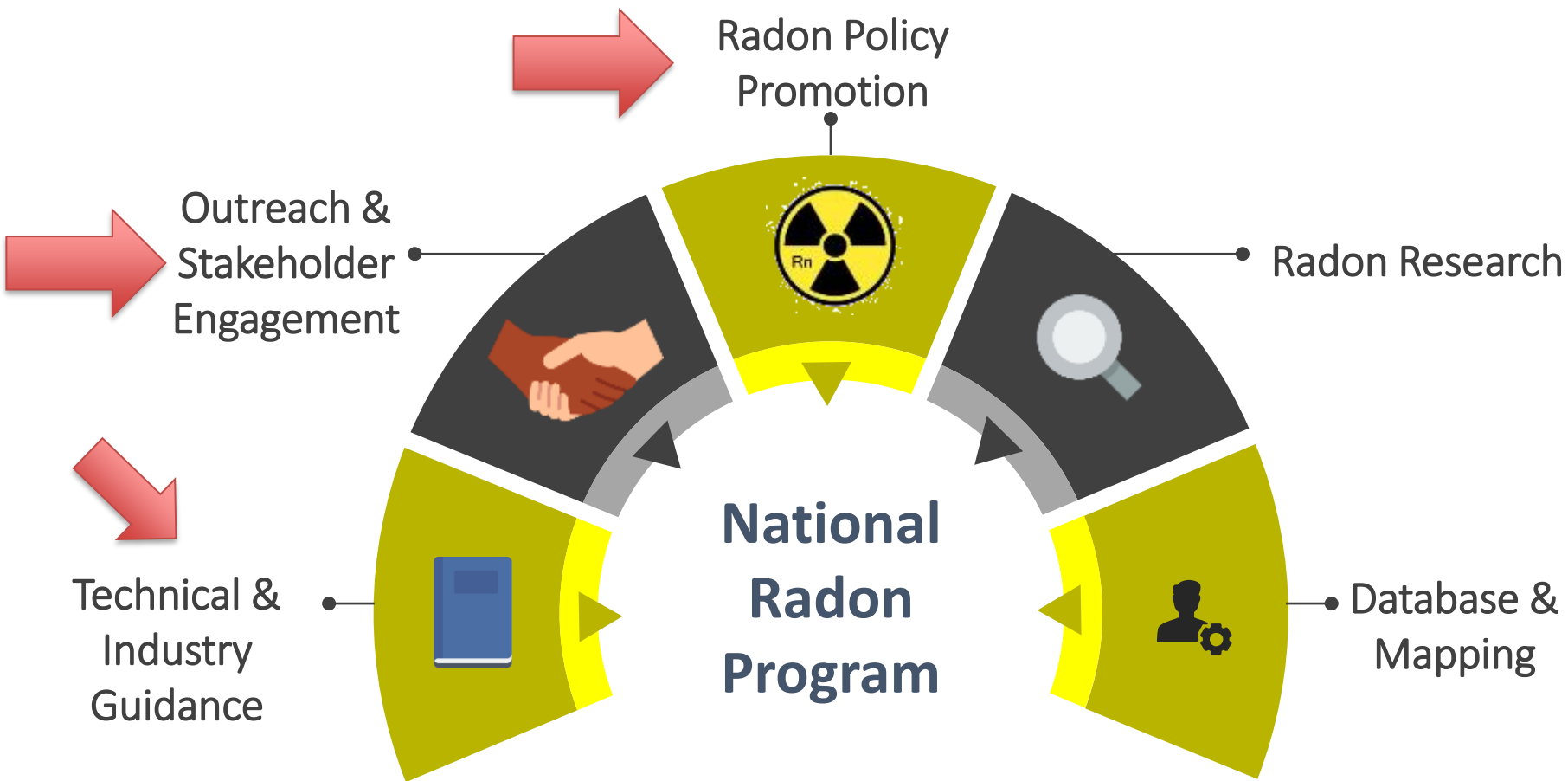
# NATIONAL RADON PROGRAM

## Awareness into Action

Health Canada – Radiation Protection Bureau  
April 2023



# HEALTH CANADA'S NATIONAL RADON PROGRAM



# RADON OUTREACH 2022 PROGRESS & PRIORITIES



HC Outreach Efforts	2008-2022
Outreach materials distributed	> 14,500,000
Web page views	> 2,200,000
Public inquiries	> 17,500
Outreach & Media events	> 3000

- PT / Municipal Radon Action Guides (RAG)
- Radon Gas is in Your Home Postcard distribution
- Radon Outreach Contribution Program
- Radon surveys and public opinion research

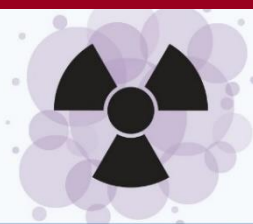
## Take Action on Radon (TAoR) Network and Campaign

- [100 Test Kit Challenge](#) and [Mitigation rebate programs](#)
- [White Ribbon Program](#): Focused on families with lung cancer.
- TAoR [Smoker's Helpline Radon Program](#)



# RADON ACTION MONTH 2022

TAKE  
ACTION  
ON RADON



CANADA.CA/HEALTH

Canada

Informing and empowering Canadians – HC communications and social media

## Products:

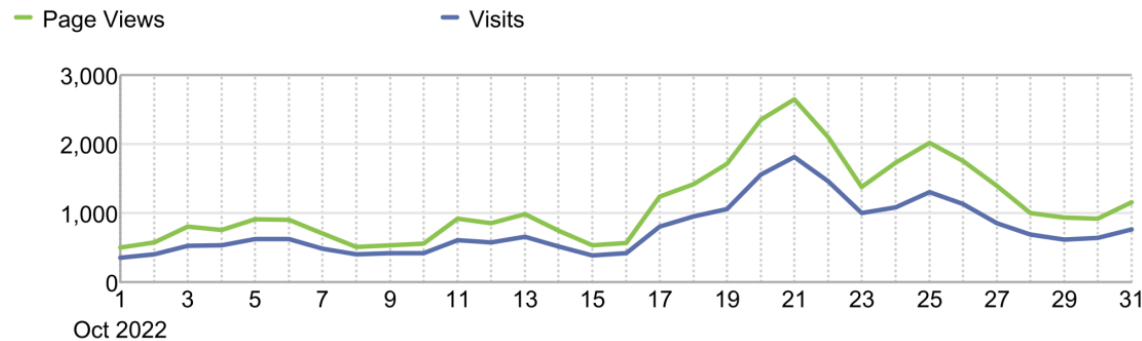
- Minister's radon message and video
- Radon Postcard – 1.3 million
- Organic social media strategy, including Ask the Expert videos
- Proactive media relations - ~20 interviews
- Blog Post on radon testing



A screenshot of a Facebook post from Health Canada | Santé Canada. The post includes a text message about radon exposure and a link to a website. Below the text is a colorful infographic with a yellow background and sunburst patterns. The infographic asks "Have you tested your home for radon?" and "Did you know that radon is the #1 cause of lung cancer for non-smokers?". It features "NO" and "YES" buttons and a star icon. At the bottom, it says "Test your home for radon today! A long-term (3-month) test during the fall/winter is the most accurate way to test for radon." The footer of the post includes "CANADA.CA/HEALTH" and the Canada logo.

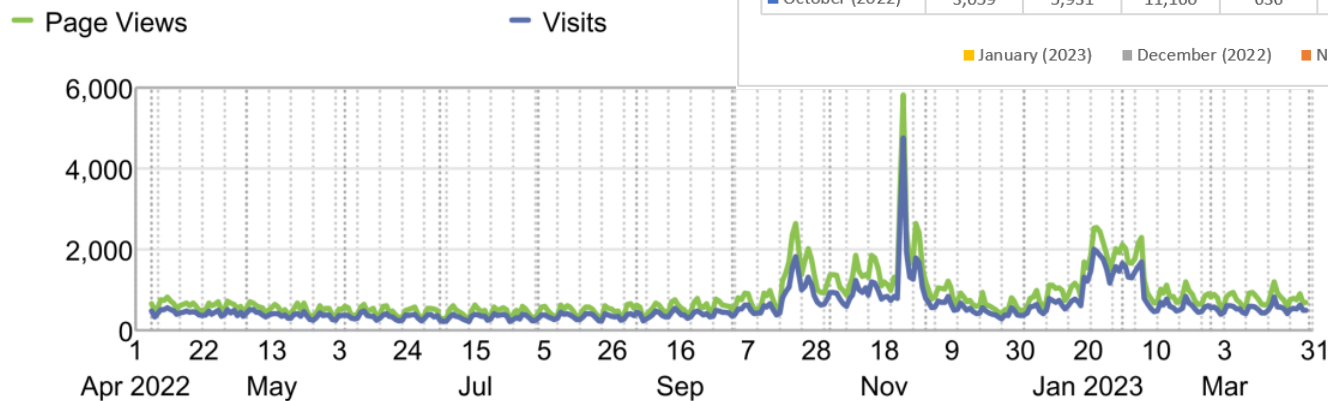
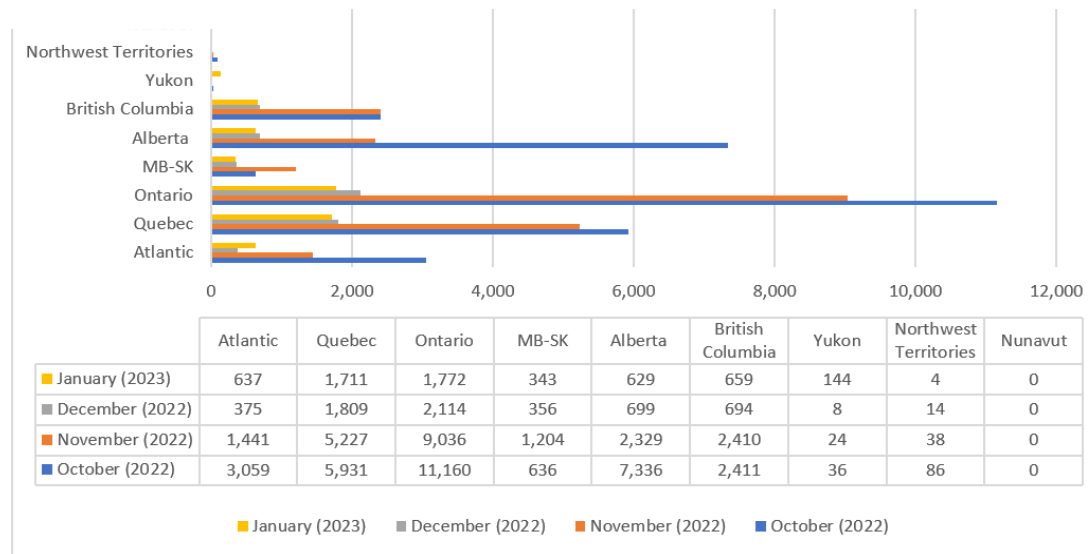


# RAM 2022- ANALYTICS



TakeActiononRadon.ca

- Radon postcards, social media and traditional media – significantly impact web visits and public inquiries



# CHALLENGE: NOT ENOUGH TESTING

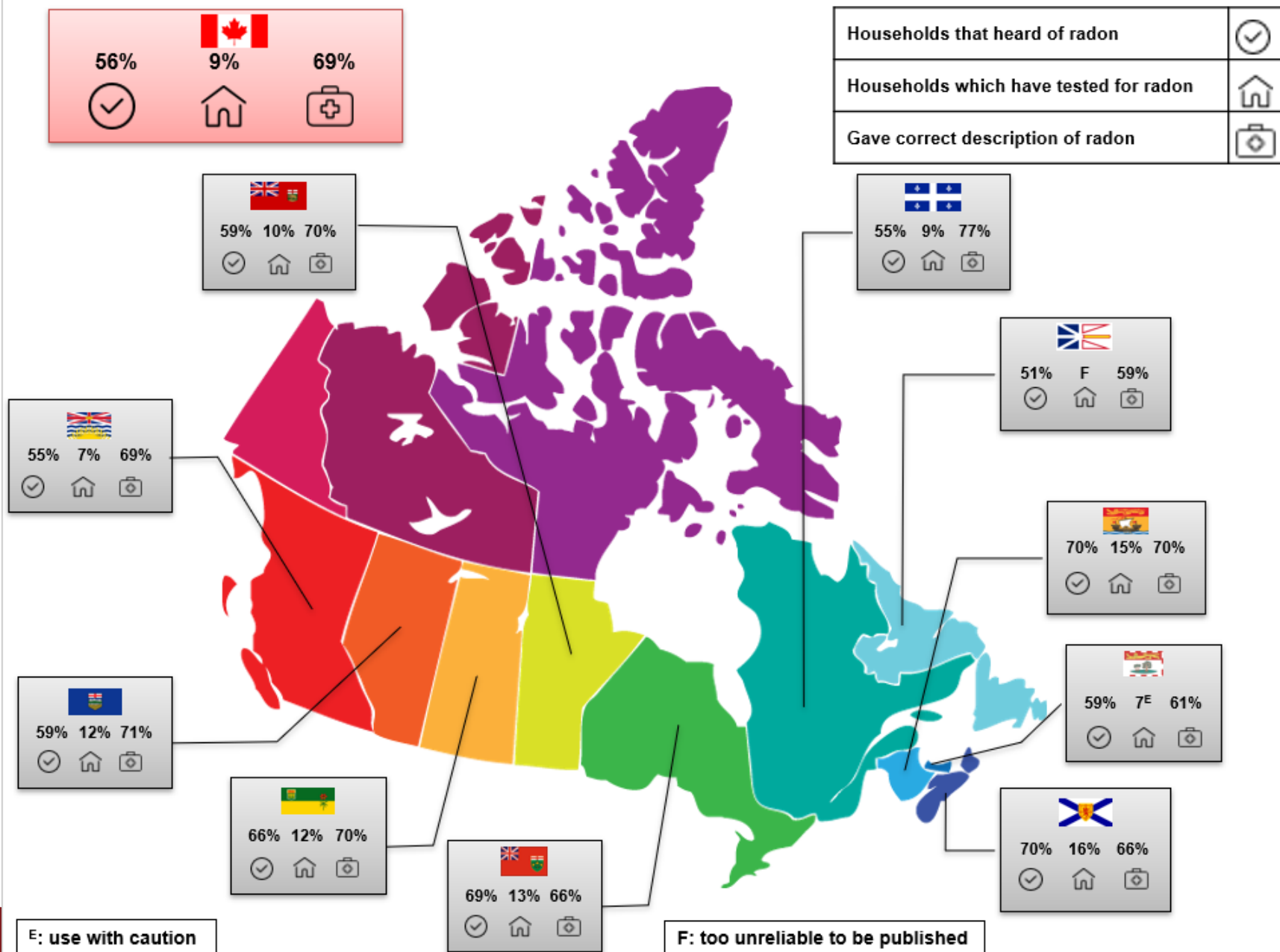


	2011	2013	2015	2017	2019	2021
Households that had heard of radon <u>(percentage)</u>	40	45	55	49	54	56
Gave correct description of radon	37	53	59	63	63	69
Households which had heard of and also tested for radon	5	5	6	7	6	9

Source: Statistics Canada [Households and the environment survey](#)

We need PT support to promote action through policy and programs

# 2021 SURVEY RESULTS BY PROVINCE

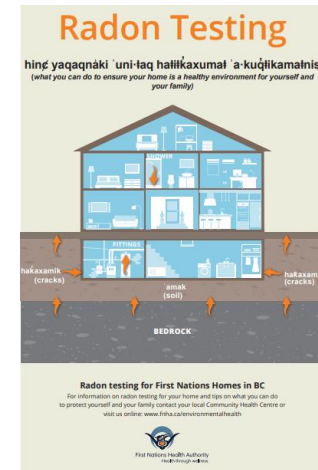


# RADON OUTREACH CONTRIBUTION PROGRAM


- One step directed solicitation process: invitation to submit proposals.
- Potential applicants include provincial or community based NGOs, regional health authorities, indigenous organizations and academic institutions.

## Examples:


- **MB** : Radon awareness for low Income households and minority communities
- **NS/NB/PEI** : Radon device provided to all Members of the Legislative Assembly. Established a Atlantic Radon Working Group including government, non-profit, universities, and privately owned companies.
- **BC**: Radon Risk Reduction through Capacity Building in First Nations Communities and radon testing in lung cancer patient homes
- **SK**: Provincial Radon Action Plan and campaign (**Tackle Radon**), Promoting and financially supporting mitigation
- **AB**: Library lending program and expansion of Tackle Radon campaign
- **QC**: Quebec provincial radon risk Map and targeted Municipal campaigns




### TACKLE RADON TEAM ROSTER




**CALVIN MCCARTY**  
Calgary Football Team & Grey Cup Champion



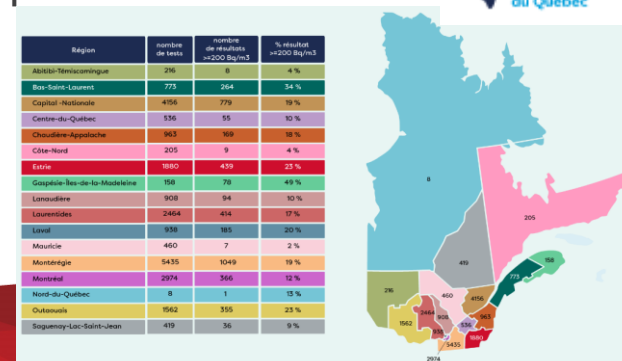
**TREVOR HARRIS**  
Quarterback & Grey Cup Champion



**ANDREW GREENE**  
Saskatchewan Roughriders Alumni, 4 year CFL All-Star



**ADAM BIGHILL**  
Winnipeg Blue Bomber & Grey Cup Champion



Lungs Matter



Home Radon Mitigation Grant Program



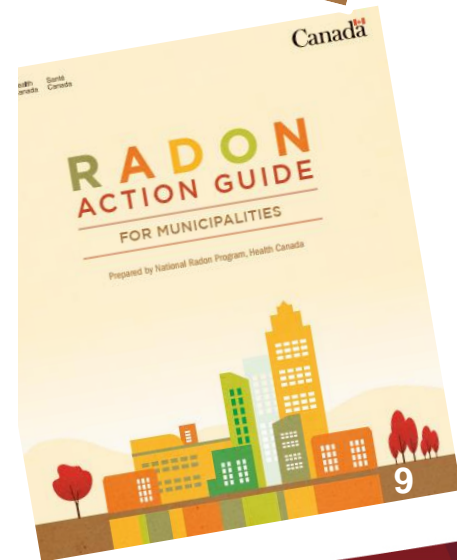
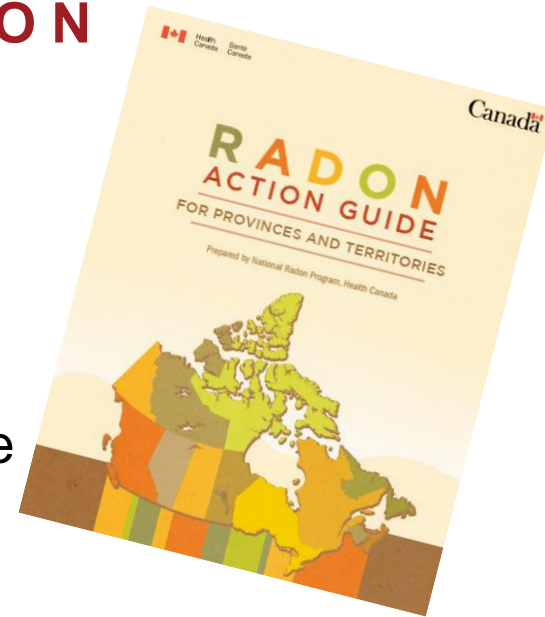


# HEALTH CANADA'S RADON ACTION GUIDES (RAGS)

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## Health Canada's National Radon Program developed Radon Action Guides (RAGs):

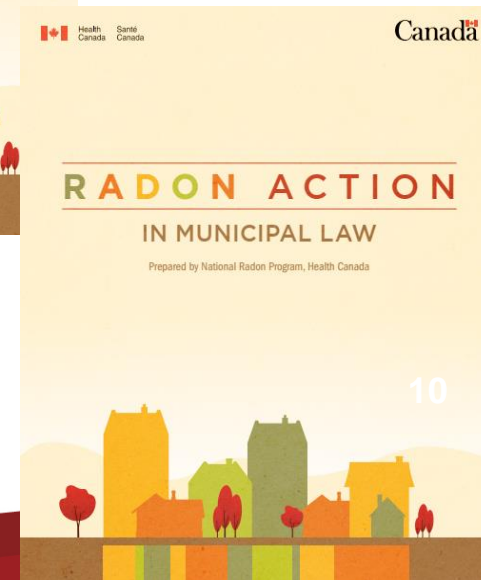
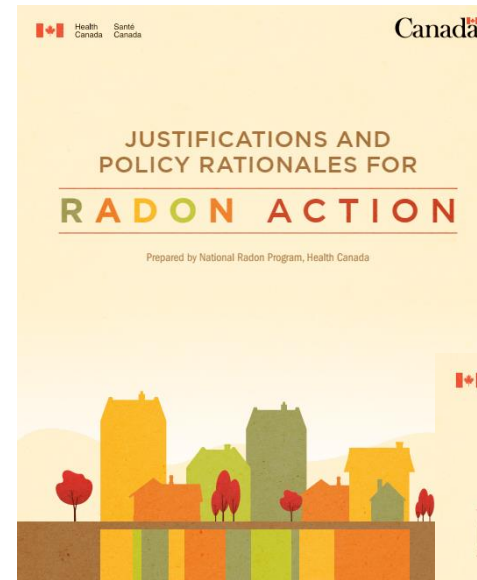
- Evidence-based, developed by legal and environmental health expert in collaboration with the National Radon Program
- Describe why radon action is important
- Describe the regulatory and policy actions that provinces, territories, and municipalities in Canada can take
- Builds on comparative research that considers existing actions across Canada and internationally
- Include examples of radon policy and regulatory action in Canada and internationally
- Include draft language that may be adopted



# DOCUMENTS THAT SUPPORT THE RAGS

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- Radon Action in Municipal Law
  - Powers that municipalities have to address radon in enabling laws
- Justifications and Policy Rationales for Radon Action
  - Why governments should take action
  - How radon action fits with societal values and is cost-effective
  - Linking radon to existing initiatives



# HEALTH CANADA'S NATIONAL RADON PROGRAM



# NATIONAL RADON PROGRAM: PRIORITIES

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## Action through policy:

- Updating **Canadian Building Codes** to reduce radon in new construction (ex. inclusion of passive stack)

## Update/modernize radon reduction protocols:

- Keeping pace with new technology – generating evidence and knowledge about **Digital Radon Monitors**
- Investigating and **Alleviating Constraints** on action – studies to determine whether current testing constraints are necessary



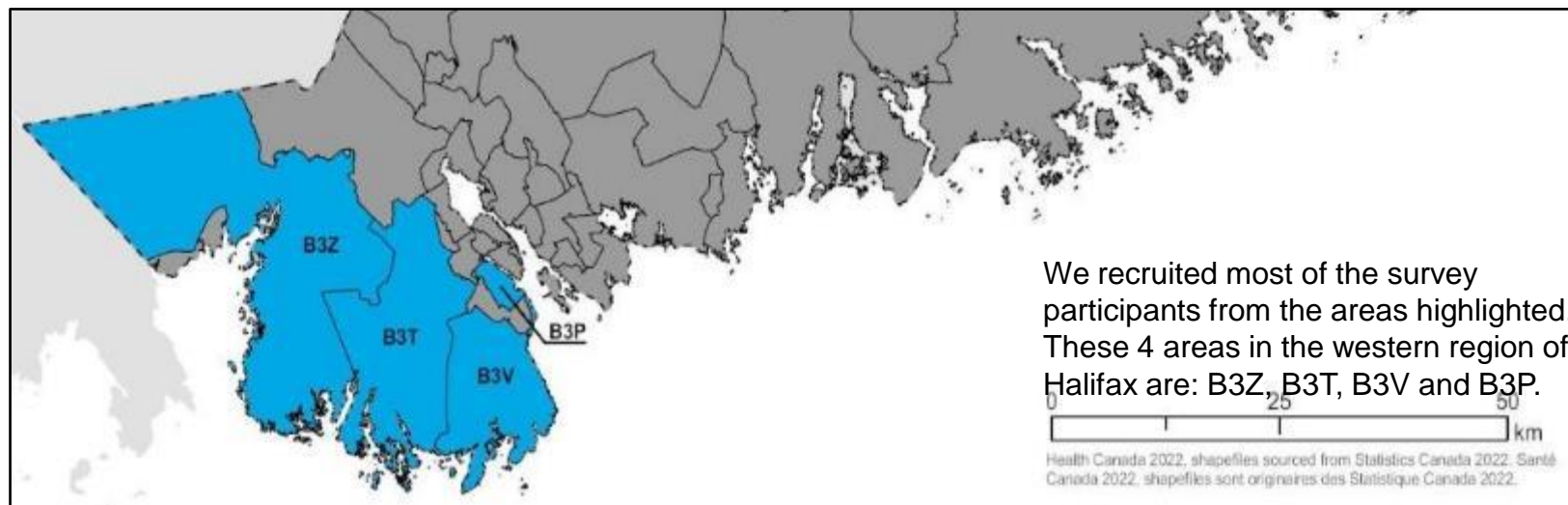
# NEED FOR ACTION: HALIFAX STUDY

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Measured radon concentrations in homes built between 2001-2010 and 2012-2021 in the Halifax Regional Municipality, to assess the effectiveness of 2010 NBC measures

Preliminary results compiled into report, published online on [canada.ca](https://canada.ca), publicly available late **September 2022**

Results contribute to the body of evidence of rising radon levels in Canada, additional data analysis currently underway





# NEED FOR ACTION: HALIFAX STUDY

Homes with radon control measures

## RESULTS

Radon level (Bq/m <sup>3</sup> )	Home construction period			
	2001 to 2010		2012 to 2021	
	Number of homes	Percentage (%)	Number of homes	Percentage (%)
<b>under 200</b>				
<b>200 to 600</b>				
<b>over 600</b>				
<b>Total</b>				

Radon tests took place between N  
The average test took 95 days. All

For full details on this study, see tomorrow's presentation:

**Friday, April 14**

8:30am - 10am - Building Today

**STUDY OF RADON LEVELS  
IN HOMES IN HALIFAX**

Dr. Robert Stainforth



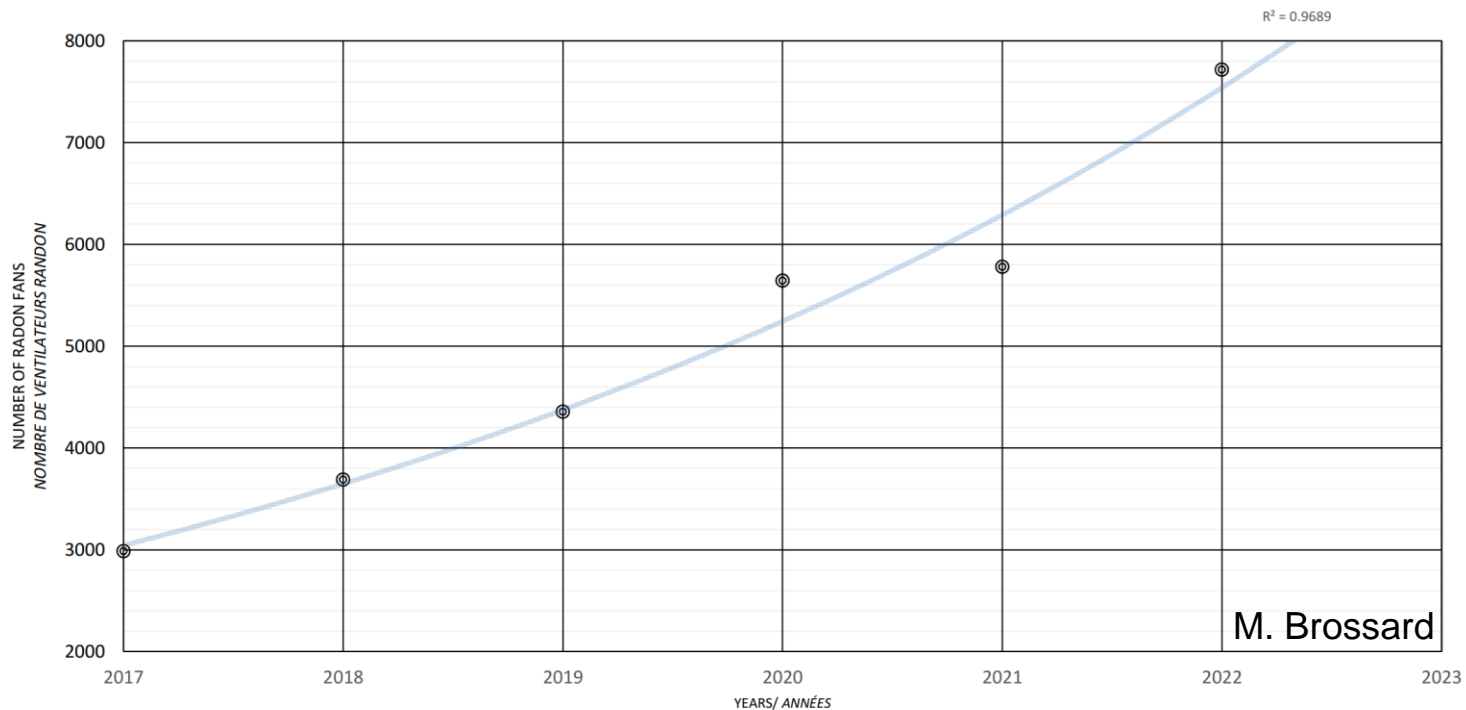
# OBSERVING TRENDS: RADON MITIGATION INDICATORS

Increasing number of Canadians are taking action:

Over **250 %** increase from 2017 – 2022

**33.5 %** from just 2021 – 2022

Number of Radon fans sold in Canada declared by manufacturers from 2017 to 2022  
*Nombre de ventilateurs radon déclarés vendus au Canada par les manufacturiers de 2017 à 2022*



# TAKING ACTION: CANADIAN BUILDING CODES

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CGSB publishes 2 standards related to control of radon in homes:

CAN/CGSB-149.11-2019 [Radon Control Options for New Construction in Low-Rise Residential Buildings](#)

CAN/CGSB-149.12-2017 [Radon Mitigation Options for Existing Low-Rise Residential Buildings](#)

## 2022-2023 highlights:

- CGSB committee established in January 2022 with goal of updating both standards and harmonizing them.
- April 2023 status: advanced drafts of both CGSB 149.11 and 149.12 prepared, sent for translation, CGSB 149.11 in public review.
- National Building Code (NBC) Task Group for Radon and Soil Gas Mitigation have proposed code request to include the vertical passive radon stack in the 2025 NBC. Proposed change would see 2025 building code reference CGSB 149.11 directly.



# TAKING ACTION: CANADIAN BUILDING CODES

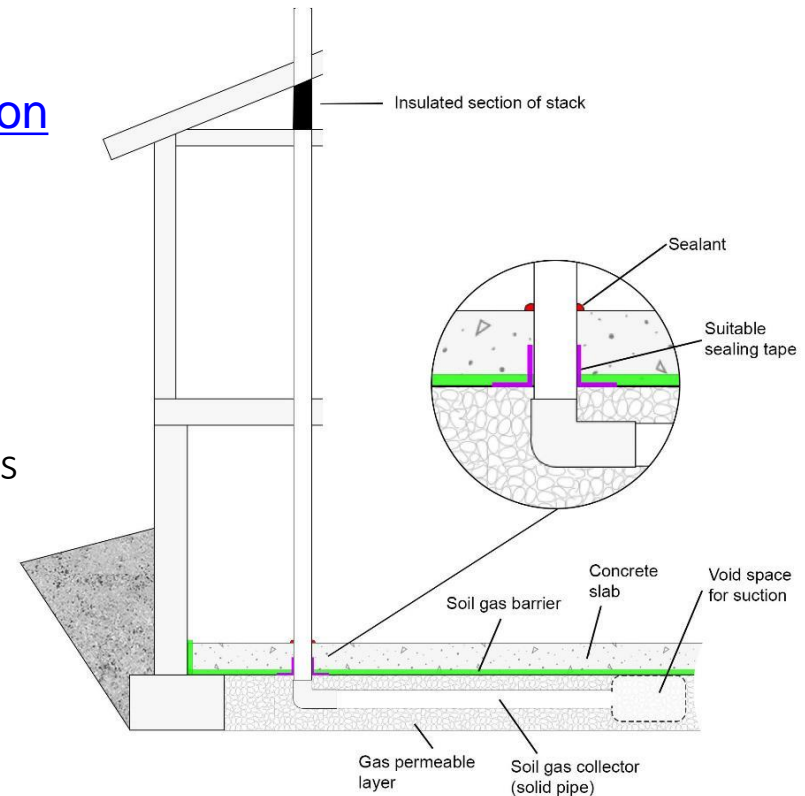
National Research Council (NRC) of Canada provides input to the Task Group based on their research findings to address several building code change requests:

Working to include [Passive soil depressurization in Canadian homes for radon control](#) in upcoming 2025 National Building Code

Expanded our support in 2022-2023 to include:

- Completing NRC survey of radon levels in Winnipeg evaluating the 2010 NBC provisions
- Continued study of effectiveness of passive radon stacks and heat/energy recovery ventilator to reduce radon concentrations
- Study of energy retrofits on radon levels including airtightness testing on homes

## Passive soil depressurization system



# MODERNIZING RADON REDUCTION: DIGITAL RADON MONITORS

Health Canada currently recommends a long-term test (> 90 days), performed during the heating season

**Known:** Many digital monitors are available to consumers on the market and Canadians have been using them to test for radon

## Key concerns:

- Recent examples of products being withdrawn/recalled for not being reliable
- No official guidance on their use and interpretation of continuous radon data for consumers





# MODERNIZING RADON REDUCTION: DIGITAL RADON MONITORS

## Launch of testing program in National Radon Laboratory (2022)

Assess the risks and benefits associated with emerging radon detection technology and products

Improvements to radon chamber (enabling consistent testing at 200 Bq/m<sup>3</sup>)

Performance testing of detectors available on consumer and professional market, complement work under C-NRPP

Nova Scotia Libraries study: Testing the performance of entry level consumer-grade monitors over time (2017 – 2022)



# ALLEVIATING CONSTRAINTS: UPDATING GUIDANCE

## Update to [Guide for Radon Measurements in Public Buildings \(Workplaces, Schools, Day Cares, Hospitals, Care Facilities, Correctional Centres\)](#)

- Released July 2022
- Publicly available on [canada.ca](https://canada.ca)

## Update to [Guide for Radon Measurements in Residential Dwellings \(Homes\)](#)

- Currently in progress



Overall testing approach not significantly changed

### Notable changes:

- Retesting every 5 years post-mitigation
- Clarity updates:
  - Detector placement
  - Variable ventilation
  - Free cooling
  - Multi-unit residential

# ALLEVIATING CONSTRAINTS: UPDATING GUIDANCE

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Current guidance on testing provides a conservative estimate of an individual's annual average radon exposure

**Feedback:** testing instructions are too restrictive

Re-evaluating the assumptions in this guidance has the potential to make protocols less restrictive and testing more accessible to Canadians

Actively updating Health Canada's residential testing guide and providing supplementary guidance on:

- Detector placement
- Mitigation timeline post-test
- Consumer-grade digital radon monitors
- Short-term screening



# ALLEVIATING CONSTRAINTS: SEASONAL VARIATION STUDY

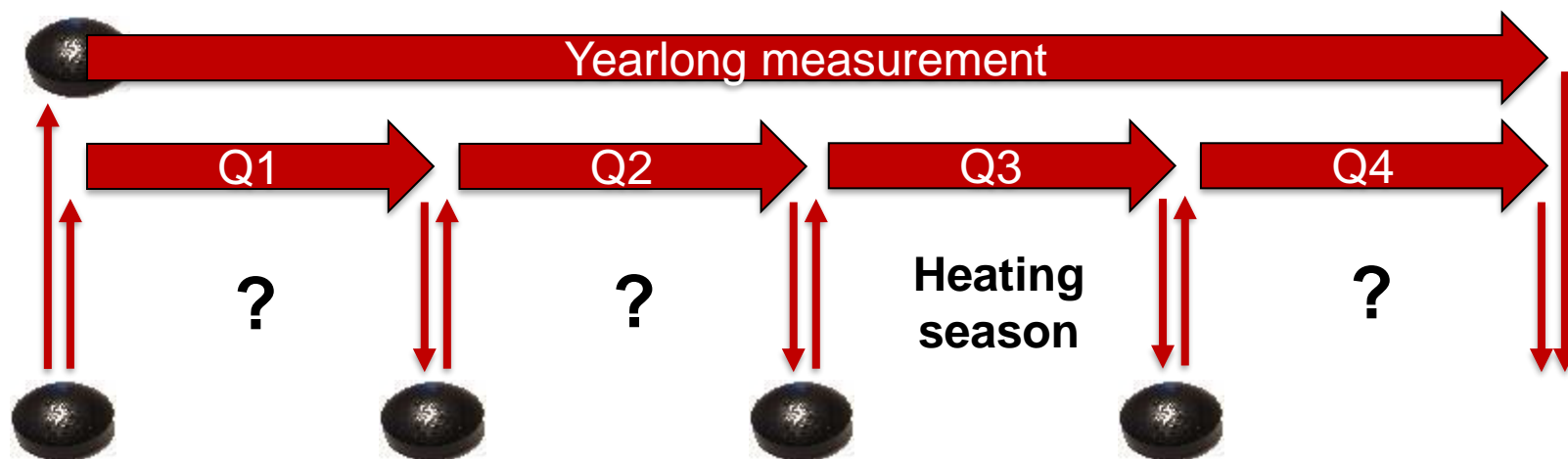
Next major radon survey of radon levels in all home types, construction years, etc.; aiming to open up the radon testing season

Series of quarterly measurements by each participant

Compared to a year-long measurement performed concurrently

Rolling start (additional cohorts of participants expected)

Set to begin in spring / summer 2023



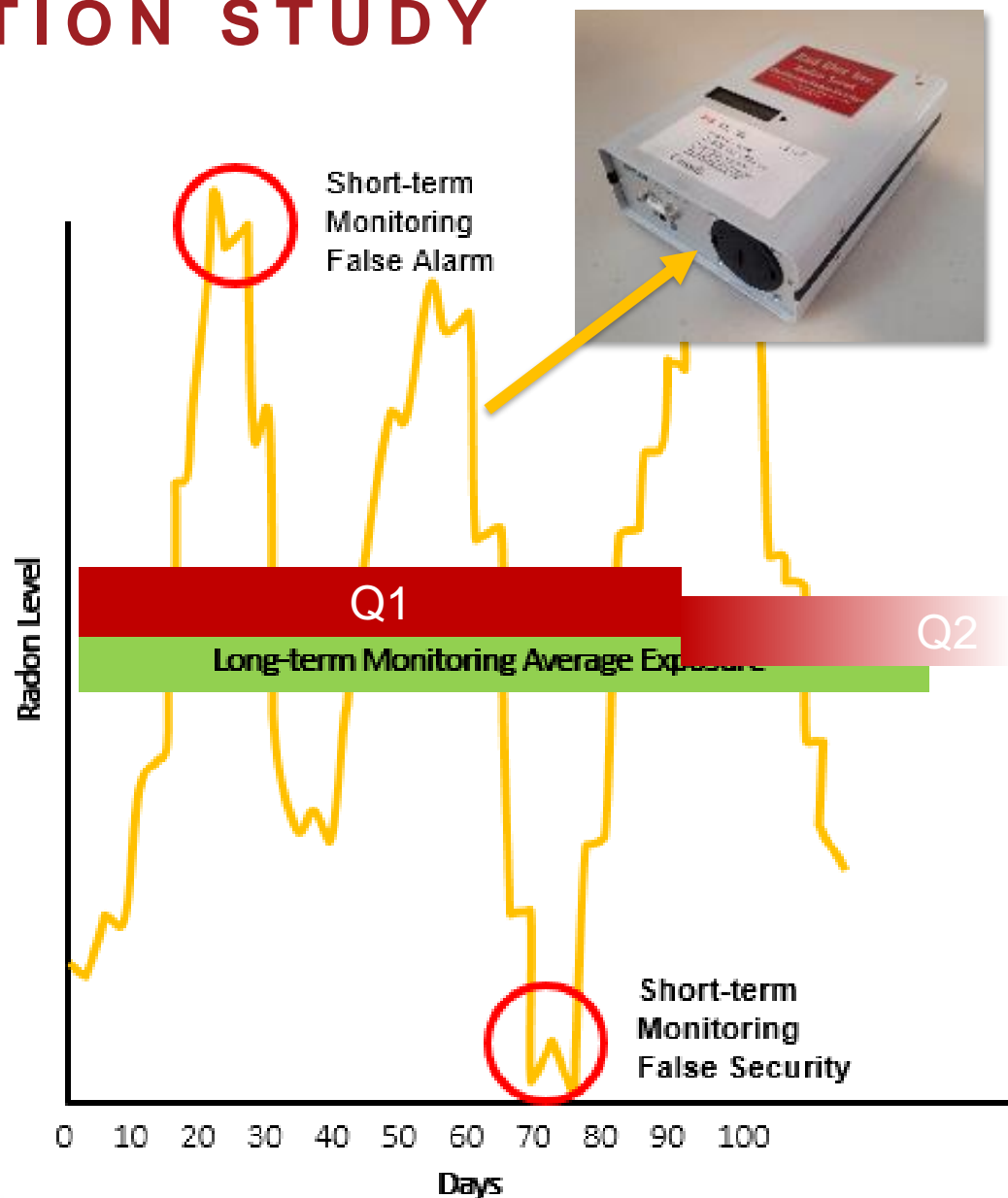
# ALLEVIATING CONSTRAINTS: SEASONAL VARIATION STUDY

Additional short interval data to be collected for select participants

Beneficial in identifying cause of any observed variation

Holds potential to inform updated guidance on short-term testing, ex:

- Real estate
- Inspections
- Consumer digital monitors





# ALLEVIATING CONSTRAINTS: SEASONAL VARIATION STUDY

Launched ongoing recruitment campaign for all upcoming Health Canada radon surveys (various promotion: postcard, social media, [webpage](#))

**RADON**  
**GAS IN YOUR HOME**

Radon is the #1 cause of lung cancer in non-smokers.  
TEST to find out if you have a dangerous level.

- 1 PURCHASE**  
Purchase a long-term radon test online  
[www.takeactiononradon.ca](http://www.takeactiononradon.ca)
- 2 TEST**  
Follow the instructions provided to properly place the test kit in your home.  
After 3 months send your radon test kit to the lab to be analysed using the return packaging and instructions provided.  
You will receive your result within a few weeks.
- 3 TAKE ACTION**  
If your radon level is below 200\* no action is required.  
For radon levels above 200\*, take action to reduce.  
Contact [radon@hc-sc.gc.ca](mailto:radon@hc-sc.gc.ca) or visit [Canada.ca/radon](http://Canada.ca/radon)  
Health professionals visit: [radon.machealth.ca](http://radon.machealth.ca)

Interested in being a participant in a future radon study? Contact [radonsurveys-enquetesurle radon@hc-sc.gc.ca](mailto:radonsurveys-enquetesurle radon@hc-sc.gc.ca).

Health Canada Santé Canada

Final preparations underway for materials / logistics of this study, pilot phase launching soon...



## Radon: About

About

[Testing your home](#)

[For professionals](#)

[Action guides](#)



Participate in a [radon study](#).

# THANK YOU/MERCI



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Canada

Santé  
Canada

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1-833-723-6600

[Canada.ca/radon](https://Canada.ca/radon)

[Canada.ca/le-radon](https://Canada.ca/le-radon)

