



100 Radon Test Kit Challenge: RM of MacDonald, MB

“Empowering Communities, Saving Lives”



Canadian
Cancer
Society





Take Action on Radon is proud to unite members from across Canada, which encompasses the traditional territory of many First Nations, Métis Peoples, and Inuit whose ancestral footsteps and rights extend beyond the colonial boundaries that exist today. We respectfully honour these Peoples' rights, history, and relationships with this Land.



Canadian
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Society





Project Overview:

The *100 Radon Test Kit Challenge* program provides 100 long-term radon test kits (or more), free of charge, to communities, to distribute to their citizens.

“Turn-key program” provides tools and resources for each step of the process.

No cost to participating communities: requires only staff time for organizing, distributing, and collecting test kits.



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Program Goals

1) Distribute radon test kits to communities where there is a risk of elevated radon levels, and where testing has thus far been limited.

- *100 test kits distributed for 100 days*

2) Raise local radon awareness

- *community members with a personal report*
- *community champions receive a summary report*

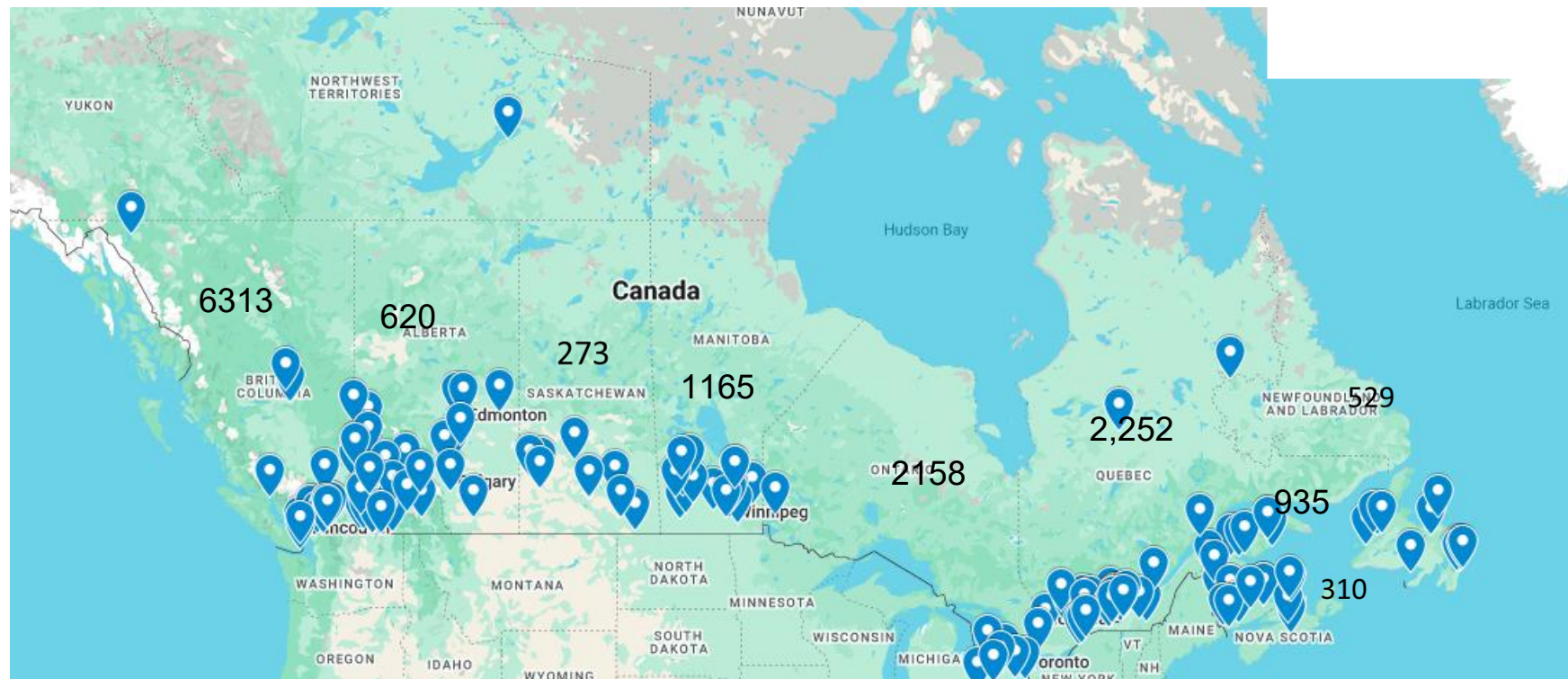
3) Generate data in under-tested urban and rural regions of the country

4) Inspire legacy radon programming in participating communities



Impact to date

*Over 160 Communities
-11 Provinces/Territories
-over 10 First Nations
-2 Métis groups*



*Over 30 000 detectors distributed
with an average of 74% return rate:
more than 21 000 homes tested*

*More than 30% of those who've tested over
200 Bq/m3 have
Mitigated their homes already!*



2018-19

(9)

Moncton, NB
 Salmon Arm, BC
Winnipeg, MB
 Spruce Grove, AB
 Golden, BC
 Souris, MB
 Port Colborne, ON
 Baden, ON
 Wabana, NL

2019 – 2020 (15)

Halifax, NS
 Sherbrooke, QC
 Brandon, MB
 Dauphin, MB
 Greater Madawaska
 Region, ON
 Summerland, BC
 Valemount, BC
 Coquitlam, BC
 Abbotsford, BC
 McBride, BC
 Vaudreuil-Dorion, QC
 Pembroke, ON
Harrison Park, MB
 North Grenville, ON

2020 – 2021 (20)

Sicamous, BC
 Peachland, BC
 West Bank First Nation, BC
 West Kelowna, BC
 Kelowna, BC
 Vernon, BC
 Sundre, AB
 Black Diamond, AB
 Eston, SK
 Silver Harbour, MB
 Lakeshore, MB
 Chatham-Kent, ON
 Leeds & Thousand Islands, ON
 Carleton-sur-mer, QC
 Saint-Joseph du-Lac, QC
 Lorraine, QC
 Candiac, QC
 Madawaska, NB
 Mount Pearl, NL
 Stephenville, NL

2021 – 2022 (30)

Barriere, BC
 Peachland, BC
 West Bank First Nation, BC
 West Kelowna, BC
 Kelowna, BC
 Vavenby, BC
 Clearwater, BC
 Blue River, BC
 Grand Forks, BC
 Revelstoke, BC
 Eatonia, SK
 Weyburn, SK
 Clarence-Rockland, ON
 Ottawa, ON
 Waterloo, ON
 Mallorytown, ON
 Candiac, QC
 Percé, QC
 Deux-Montagnes, QC
 Saint-Augustin-des-
 Desmaures, QC
 Grand Falls, NB
 Gander, NL
 Harbour Breton, NL
 Fogo Island, NL
 7 Nations Communities, NB
 Treaty 3 Communities, ON

2022 – 2023 (25)

Kimberley, BC
 Kelowna, BC
 West Kelowna, BC
 Lake Country, BC
 Peachland, BC
 West Bank First Nation, BC
 Salt Spring Island, BC
 Chilliwack, BC
 Mission, BC
 Cultus Lake, BC
 Hope, BC
 Harrison and Kent, BC
 Estevan, SK
 Whitecap Dakota First
 Nation, SK
 Edenwold, SK
 East St. Paul, MB
 RM of Hanover, MB
 Cavan Monaghan, ON
 Ste-Anne-de-Bellevue, QC
 Prévost, QC
 Cantley, QC
 Gaspé, QC
 Beloeil, QC
 Woodstock First Nation, NB
 Riverview, NB

100 Test Kit Challenge communities, by year

100 Test Kit Challenge communities, by year



2023 – 2024

BC Cancer – Victoria, BC
Fort St. James, BC
Lumby, BC
Lillooet, BC
Keremeos, BC
Radium Hot Springs BC
Invermere, BC
Enderby, BC

Edmonton, AB
Innisfail, AB
Lacombe County, AB
RM of Miry Creek, SK (Abbey, SK)

Neepawa, MB
Dauphin, MB
Portage la Prairie, MB
Pinawa, MB

Augusta, ON
Woodstock and St. Thomas, ON

Pessamit, QC
Sainte-Julie, QC
Sainte-Marthe-sur-le-Lac, QC
Pincourt, QC
Maria, QC

Conception Bay South, NL
Logy Bay-Middle Cove-Outer Cover, NL
Gillams, NL
Pasadena, NL

Repeating in:

Regional District of Central Okanagan, BC
Woodstock First Nation, NB
Kimberley, BC
Fraser Valley Regional District, BC



100 Test Kit Challenge communities, 2024-2025



City of Rossland, BC

Oliver, BC

Atlin, BC

Strathcona Regional District, BC

Village of Nakusp, BC

Village of Kaslo, BC

RDCO, BC

Rock Creek, BC

Fraser Valley, BC

Lethbridge, AB

Village of Myrnam, AB

Village of Caronport, SK

RM of Macdonald, MB

RM of Yellowhead, MB

Haldimand-Norfolk Health & Social Services, ON

Kenora, ON

Township of Ashfield-Colborne-Wawanosh, ON

Valcourt, QC

Boisbriand, QC

Saint-Barbe, QC

Saint-Charles-sur-Richelieu, QC

Saint-Antoine-sur-Richelieu, QC

Beloeil, QC

Gaspe, QC

Listiqui, QC

Gesgapegiag, QC

Matimekush, QC

Pessamit, QC

Central York Rural Community, NB

Grand Bay, NB

Municipal District of St Stephen, NB

Municipality of Eastern Charlotte, NB

Butternut Valley, NB

Millbrook First Nation, NS

Charlottetown (North of Euston and area), PEI

Steady Brook, NL

Mount Pearl, NL

Conception Bay South, NL

St. Johns, NL



Radon Basics – Health Effects

Radon is the leading cause of Lung Cancer in non-smokers.

Radon greatly increases smoker's risk of getting lung cancer.

Health Canada estimates over **3,000** Canadians per year die of radon-related lung cancer.



From Health Canada's Radon Gas: It's in your home.

https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/ewh-semt/alt_formats/hecs-sesc/pdf/pubs/radiation/radon_brochure/radon_brochure-eng.pdf

Radon Basics - Source

Radon is a radioactive gas which comes from the soil.

Enters all buildings which have contact with the ground and can move through the building, including upper levels.

Typically highest levels are found in the basement or first floor.

Health Canada recommends all buildings be tested using a 3-month test during the heating season and any homes found with levels above 200 Bq/m³ be reduced.



Community Participant Stats



Detectors distributed	Start Surveys Completed	End Surveys Completed	Reports Issued	Return Rate
100	86	81	76	76 %



Eurofins Radon Testing Sweden AB
Box 63
971 03 LULEÅ
SWEDEN

Website: radon.eurofins.se/en-gb/

C-NRPP ID: CAL-202502

Radon Test Report

Report Issue Date: «Report_Issue_Date»

Customer Contact Information:

«First_Name» «Last_Name»

«Mailing_Address»

«Email»

Tested Address:

«Testing_Address»

«City/Town», «Province» <<Postal Code>>

Device Location:

«Device_Location»

Test Device Used: **AlphaTrack**

C-NRPP Listed Device - Quality Assurance Plan in place.

Detector S/N	Detector Type	Test Start Date	Test End Date	Test Duration	Test Result (Bq/m³)
«Detector_SN»	AlphaTrack	«Test_Start_Date»	«Test_End_Date»	«Test_Duration»	«Test_Result_Bqm»

Results from Lab Section 4 authorized by «Lab Supervisor»

Margin of Error +/- «Margin of Error»

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Recommendations:

«Additional_information_about_your_sample»

«Recommendations»

You can find a C-NRPP mitigation professional to help you here: <https://c-nrpp.ca/find-a-professional/>

Need help with interpreting this report? You can find information online: <https://takeactiononradon.ca/understanding-your-radon-test-report/>

The information in this report will be shared with the **Take Action** on Radon group.

Understanding your RADON TEST RESULTS

When you get your radon test report
Look for your radon level in order to make a decision of what you should do next. The radon level will be reported in Bq/m³. This is a measurement of radioactivity because radon is a radioactive gas.

✓ If your radon level is below 200 Bq/m³
It is within the Canadian guideline. Consider re-testing within the next 5 years.

! REDUCE LEVELS
When your radon level is reported at 200 Bq/m³ or more, take action to REDUCE radon levels within one year.

The Canadian guideline for radon in indoor air is 200 Bq/m³

If you've tested your home, and the radon concentration is above the Canadian guideline of 200 Bq/m³, Health Canada recommends that you take action to lower the concentrations.

The higher the radon concentrations, the sooner action should be taken to reduce levels to as low as practically possible. While the health risk from radon exposure below the Canadian guideline is small, there is no level that is considered risk free. It is the choice of each homeowner to decide what level of radon exposure they are willing to accept.

RADON LEVEL	LIFETIME RISK OF LUNG CANCER	LIFETIME RISK OF LUNG CANCER IF YOU SMOKE
Under 100 Bq/m³	1%	12%
100-199 Bq/m³	1.2%	15%
200-299 Bq/m³	2%	17%
300 Bq/m³ and over	4%	26%

Now that you have tested your home, encourage your friends and family to test too! They can find a radon test kit provider online: <https://takeactiononradon.ca/find-a-radon-test-kit-provider/>

Need to reduce your radon?

There may be financial programs available to help you. You can find information about radon grant or radon warranties on our website at: www.takeactiononradon.ca/grant

HOW TO FIND A CERTIFIED PROFESSIONAL
takeactiononradon.ca/certified-a-radon-mitigation-professional
Certified radon mitigation professionals are trained to properly assess your home, and design systems to efficiently and effectively reduce your radon level.



Radon Mitigation System

A radon mitigation system is the most effective method of reducing radon levels. Research shows that certified radon professionals can reduce levels by over 90%. Other steps, such as increasing ventilation and sealing cracks, can help in the short-term but are less effective.

Find more information on radon reduction:

The Canadian National Radon Proficiency Program has a list of certified professionals to help with reducing radon levels. Find more information on radon reduction at: www.c-nrpp.ca

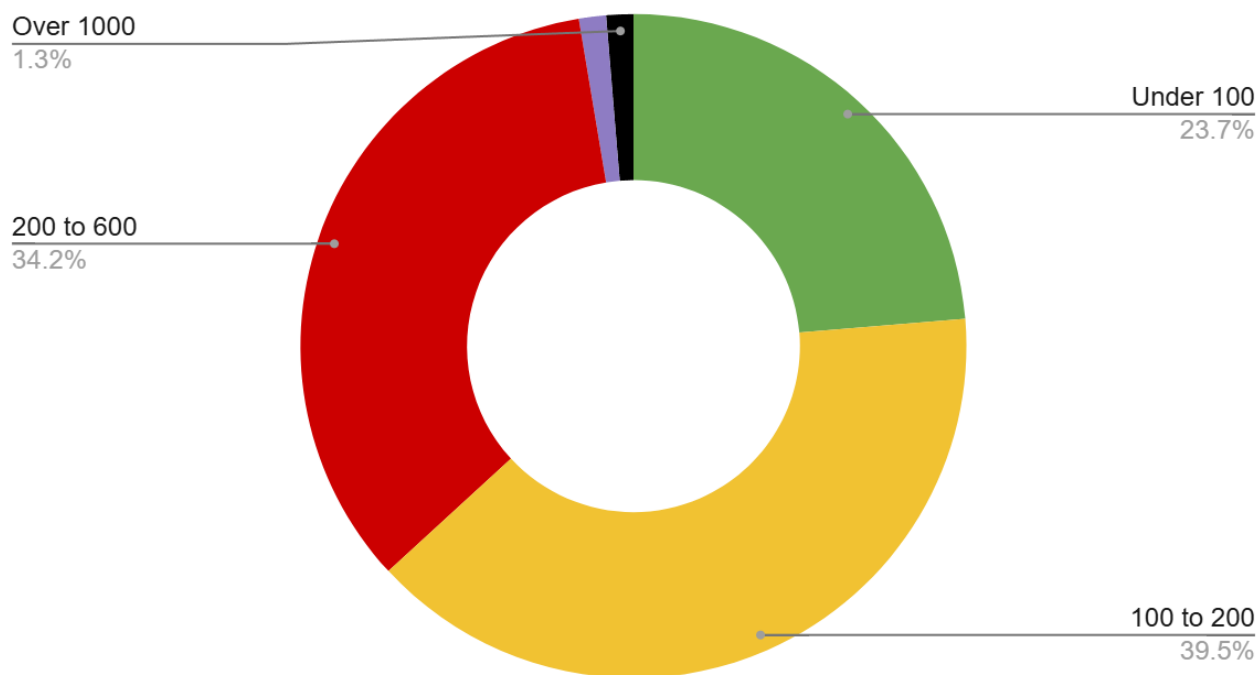
Find information from Health Canada, including Radon Reduction Guide for Canadians at: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radon/radon-reduction-guide-canadians-health-canada.html>



Take Action on Radon is a national initiative funded by Health Canada with a mandate to bring together stakeholders and raise awareness on radon across Canada. The current advisory team is made up of the Canadian Association of Radon Scientists and Technologists (CARST), and the Canadian Cancer Society.

By now, each community member should have received an individual confidential report.

RM of MacDonald Results Breakdown



37 % tested over 200 Bq/m³

76 Households Completed the testing

76	Total	
1	1.3%	Above 1000
1	1.3%	Between 600 and 1000
26	34.2%	Between 200 and 600
30	39.5%	Between 100 and 200
18	23.7%	Less than 100



Type of Home

	< 200	> 200	Total
Single Detached Home	35	22	57
Condo/apartment on second floor or above	1	0	1
			58

Owner or Renter

	< 200	> 200	Total
Own	35	22	57
Rent	1	1	2
			59

Intention to Mitigate if required

	< 200	> 200	Total
I am very likely to take action to reduce my radon level.	18	12	30
I am quite likely to take action to reduce my radon level.	19	10	29
I am undecided.	6	5	11
I am unlikely to take action to reduce my radon level.	1	0	1
			71

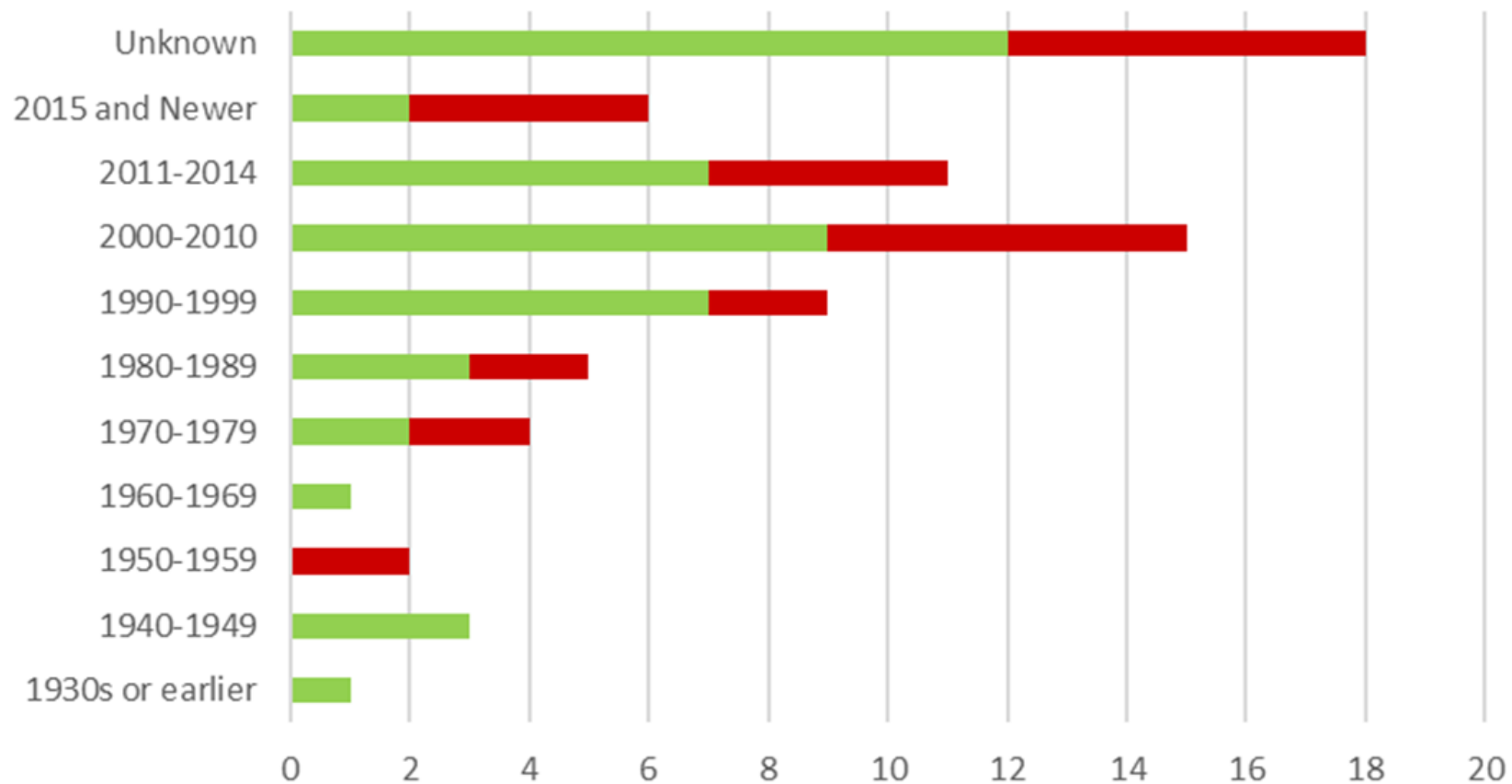
Have you previously tested for radon?

	< 200	> 200	Total
Yes	3	2	5
No	43	25	68
			73

Existing radon system?

	< 200	> 200	Total
No	38	22	60
I don't know	4	1	5
Radon rough-in	0	0	0
Passive stack	5	5	10
Full system with fan	1	0	1
			76

Results by Year of Construction - RM of MacDonald



Community Report



RM OF MACDONALD, MB

100 Radon Test Kit Challenge

81 homes participated by testing for radon gas during the winter of 2024-2025 using 91-day alpha track tests. This represents approximately 3% of the community dwellings.

37%

of homes tested above Health Canada's guideline of 200 Bq/m³

- 🏠 UNDER 100 Bq/m³ (24%)
- 🏠 100-200 Bq/m³ (39%)
- 🏠 OVER 200 Bq/m³ (37%)



Radon is a naturally occurring radioactive gas that comes from the ground.



Exposure to elevated levels of radon is linked to increased chances of developing lung cancer.

Levels can vary between neighbouring houses.

The only way to know your radon level is to test.



When you get your radon test report

Look for your radon level in order to make a decision of what you should do next.

The radon level will be reported in Bq/m³. This is a measurement of radioactivity because radon is a radioactive gas.



If your radon level is below 200 Bq/m³, it is within the Canadian guideline. Consider retesting within the next 5 years.



REDUCE LEVELS: When your radon level is 200 Bq/m³ or more, take action to **REDUCE** radon levels within one year.

The Canadian guideline for radon in indoor air is 200 Bq/m³

If you've tested your home, and the radon level is above the Canadian guideline of 200 Bq/m³, Health Canada recommends that you take action to lower the level.

The higher the radon level, the sooner action should be taken to reduce the level to as low as practically possible. While the health risk from radon exposure below the Canadian guideline is small, there is no level that is considered risk free. It is the choice of each homeowner to decide what level of radon exposure they are willing to accept.

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Construction of New Homes

Depending on the year of construction of a home, the Manitoba building code requires installation of a radon stub pipe through the foundation of the house. This is not a radon mitigation system, but simply a rough-in.

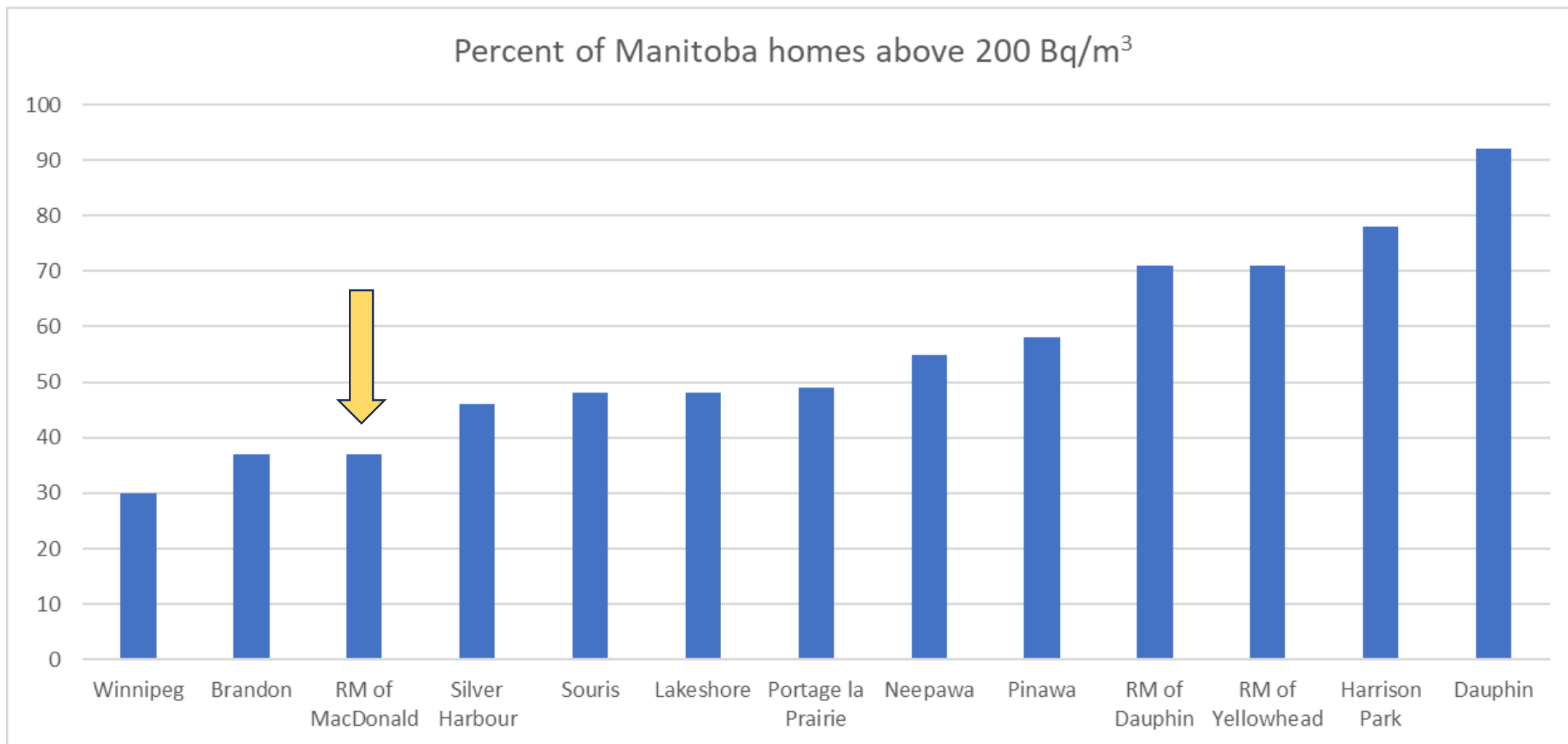
Every home needs to be tested for radon for at least 91 days, during the heating season to determine if a mitigation system is required.

Find more information on radon reduction:

The Canadian National Radon Proficiency Program has a list of certified professionals to help with reducing radon levels. Find more information on radon reduction at: c-nrpp.ca/find-a-professional

Find information from Health Canada, including the Radon Reduction Guide for Canadians at: www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/radon-reduction-guide-canadians-health-canada.html

How does your community compare?



C-NRPP Professionals

- Certified Mitigation Professionals course in both Measurement and Mitigation
- C-NRPP Mitigation Professionals are required to have insurance

List of professionals available at
www.c-nrpp.ca/find-a-professional/



C-NRPP
CANADIAN – NATIONAL RADON PROFICIENCY PROGRAM

FIND A PROFESSIONAL

C-NRPP Certified professionals are certified to work in every province and territory in Canada
Please ask the Professional if you have questions about their service area.

A C-NRPP Mitigation Professional will help you lower your radon levels.

To locate a radon professional in your area, please select a search method below and provide the necessary search terms.

☒ Search by postal code: Postal Code Distance

☐ Search by province: Province

Search for

LUNGS MATTER

Financial support for
home radon
mitigation

Radon is the second-leading cause of lung cancer in Canada...it can also be

Lungs Matter
Home Radon Mitigation Grant ProgramB R E A T H E
the lung association

In Partnership with



The Canadian Lung Association has recently launched a new grant program to help people across Canada afford radon mitigation services.

The Lungs Matter Grant Program aims to provide financial support to individuals who have been diagnosed with lung cancer and individuals considered a low-moderate income households with priority given to the low-income households.

<https://www.lung.ca/lungs-matter-radon-mitigation-support>



Tax Credit for Radon Measurements

Those working from home can claim the expense of testing their workspace for radon!

Learn more on our website.

www.carst.ca/HomeownerHealth#CRA



BREATHE
the lung association

Radon Action Examples in Canada:

Across Canada, some actions taken by governments and other institutions include:

- Radon reduction requirements in building codes,
- Promoting radon awareness and testing on websites,
- Testing of public buildings: government offices, schools, daycares, and social housing,
- Inclusion of radon in real estate Property Disclosure Statements and guidance on professional obligations for real estate agents to treat radon as a latent defect,
- Coverage for elevated radon in New Home Warranty claims,
- Requirement of radon mitigation in rental properties by some tribunals for landlord-tenant disputes; and,
- Clarifying guidelines for radon in the workplace.

Radon Action Guides - Health Canada

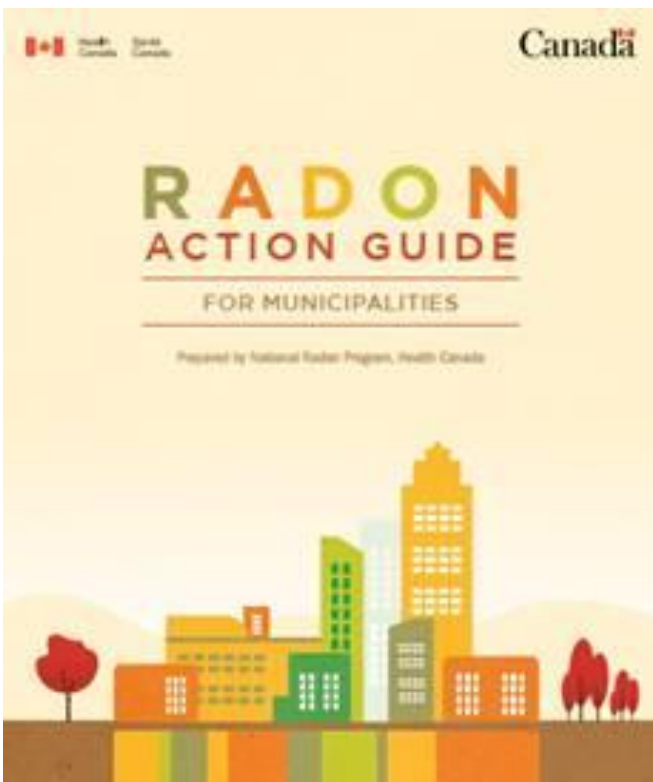
Health Canada's National Radon Program has developed Radon Action Guides designed to help provinces, territories, and municipalities across Canada develop programs and policies to address radon.

The Radon Action Guide for Municipalities describes:

- why municipalities should take action
- how to create radon action strategies
- important steps to take to reduce radon-induced lung cancer in communities

Municipalities can become leaders in advancing radon action through:

- policy development
- education and awareness
- creating databases and maps
- supporting community testing
- enforcing radon provisions in Building Codes

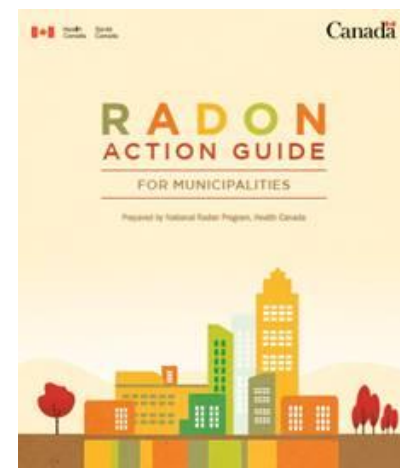


<https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/radon/action-guides/municipalities.html>

Radon Action Guide:

How to create radon action strategies?

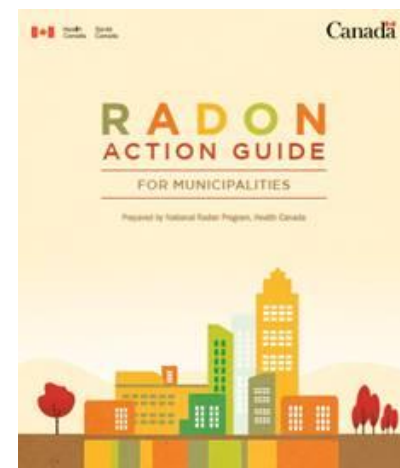
Every good strategy, starts with a plan.



- ☐ Develop RADON PLANS and include collaboration, consultation, partnerships, and independent organizations that have a strong presence at the local level and can play an important role concerning radon.

Core features of a Radon Action Plan, include:

- ☐ Delivering annual public education and awareness campaigns during November, Radon Action Month in Canada.
- ☐ Conducting community testing to gain better understanding of local radon levels.
- ☐ Adopting goals of reducing indoor radon exposure in the community.
- ☐ Establishing specific bylaws and operating policies covering building code enforcement, rental accommodation, municipal owned buildings, and publicly accessible places.
- ☐ Consider selling test kits as a way to increase testing, provide low cost options and collect radon data in their communities.
- ☐ Consider setting up a radon monitor lending program



Radon Action Guide continued:

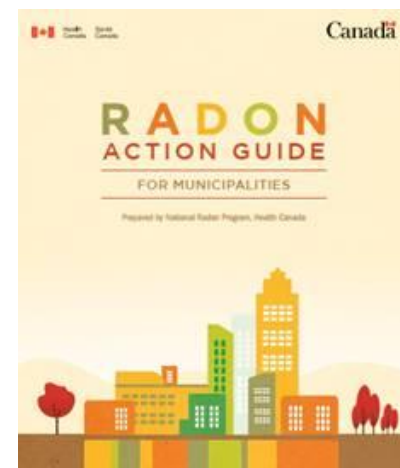
Important steps to take to reduce radon-induced lung cancer in communities

Risk management: Municipalities are employers, building owners and operators and at times landlords - general duties to ensure spaces are safe. Municipalities are also subject to a duty of care when inspecting buildings.

- ☐ Municipality owned/occupied buildings for radon and reduce high levels
- ☐ Provide training to building officials on updated building codes with respect to radon
- ☐ Addressing radon in social housing is an ethical and socially responsible action for municipalities to take. In some cases, municipalities may also control schools, daycares, and other facilities for which radon action is also important.

Increasing value of building stock: Certified mitigators can reduce radon levels to safe levels, which can become a selling feature because it assures users and owners that radon has been dealt with, increasing the value of the home or business.

- ☐ Support local business development and encourage local companies to become C-NRPP certified
- ☐ Provide financial support through grants/subsidies to support the cost of radon mitigation



Radon Action Guide continued:

Legal Powers: Most provinces' municipal legislation mentions protecting health and safety as part of the general purposes of a municipality or allows for bylaws concerning health.

Municipalities enforce areas which make up core components of radon policy, including:

- ☐ building codes
- ☐ construction permits
- ☐ standards of maintenance for rental accommodation
- ☐ air quality in indoor public spaces (as is currently done for smoking)



Thank you for your participation in this program!

www.takeactiononradon.ca

@actiononradon



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