



The National Radon Program

A Continuing Success Story in Canada

Radiation Protection Bureau, Health Canada

IRPA-13, Glasgow, 2012



Canadian National Radon Program

Based on the latest scientific information and following a broad public consultation, the Canadian radon guideline was lowered from 800 to 200 Bq/m³ in 2007.

The Minister recommends that

- Remedial measures should be undertaken in a dwelling whenever the average annual radon concentration exceeds 200 Bq/m³ in the normal occupancy area.
- The higher the radon concentration, the sooner remedial measures should be undertaken.
- When remedial action is taken, the radon level should be reduced to a value as low as practicable.
- The construction of new dwellings should employ techniques that will minimize radon entry and will facilitate post-construction radon removal, should this subsequently prove necessary.

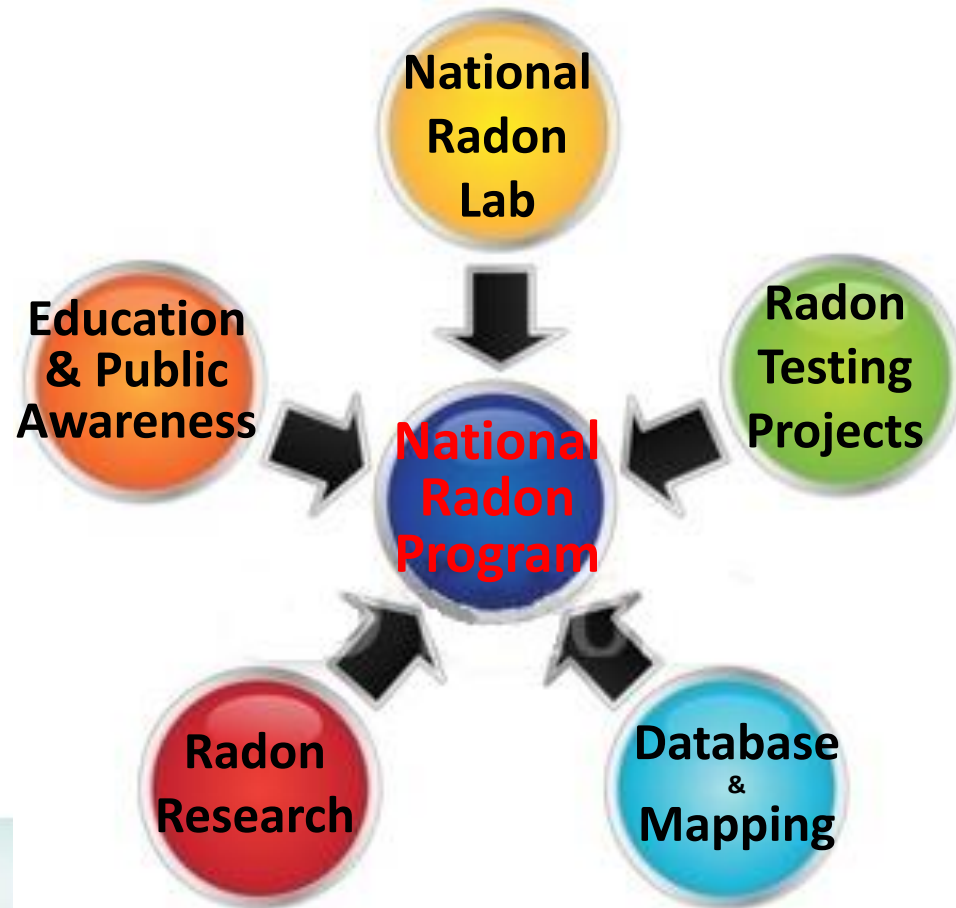
The revised guideline provides advice that is more broadly applicable and more protective than the previous guideline.



Canadian National Radon Program

To support the implementation of the revised guideline, a National Radon Program was developed. It consists of 5 components:

- establishment of a national radon laboratory as a centre of excellence for radon testing
- radon testing projects to increase the understanding of radon levels across Canada,
- development and maintenance of a radon database and a framework methodology for mapping radon potential in Canada,
- radon research
- development and implementation of a radon education and public awareness strategy to help inform and protect Canadians from the risks of long-term exposure to elevated levels of radon.



SOME HIGHLIGHTS OF ACHIEVEMENTS AND ACTIVITIES

- Federal Building Testing Program – over 8,000 buildings tested to date
- Cross Canada residential radon testing project – ~14,000 homes
 - ~ 7% of Canadian homes exceed the Canadian guideline
- Development of radon measurement and mitigation guidance documents
- Development of a Canadian Certification Program
- Radon Potential mapping model developed
- Radon research in testing, mitigation techniques, and building materials to support program guidance
- radon education and awareness programs across the country
 - Development of 9 radon outreach products
 - Participation in over 200 events across Canada
 - Distribution of almost 500,000 radon outreach products
 - and more ...



SOME HIGHLIGHTS OF ACHIEVEMENTS AND ACTIVITIES

New 2010 National Building Codes (NBC) for protection against radon ingress:

all new homes in Canada be built with an aggregate layer and a sealed vapor barrier under the slab to reduce potential radon and soil gas entry, as well as a rough-in for a radon reduction system consisting of a capped pipe set through the slab to make the home ready for active sub-slab depressurization if required.

With the implementation of the revised NBC, Canadians buying homes built to the 2010 Code provisions will face less risk from radon exposure.

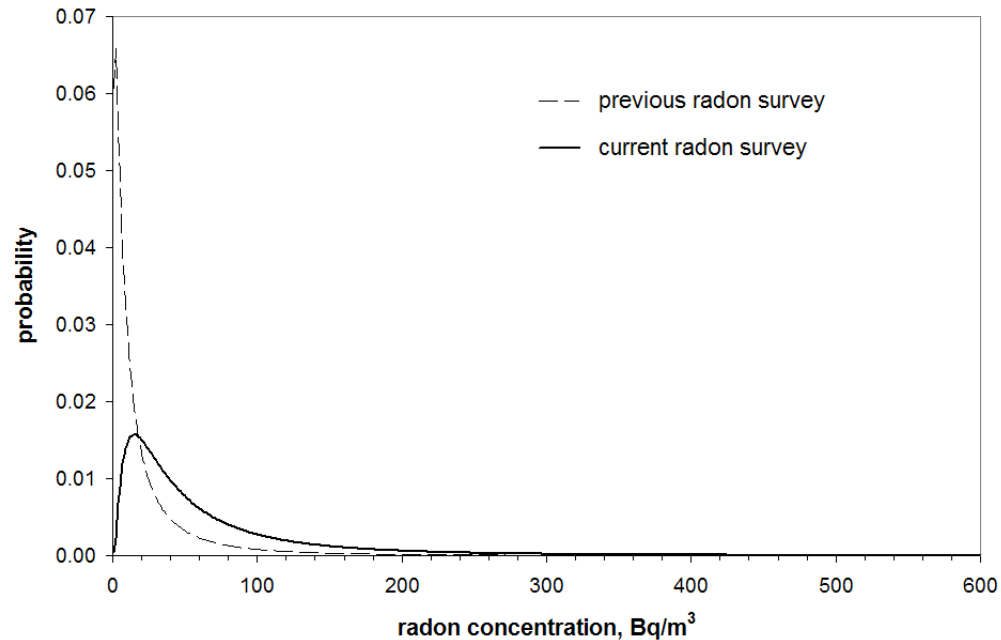
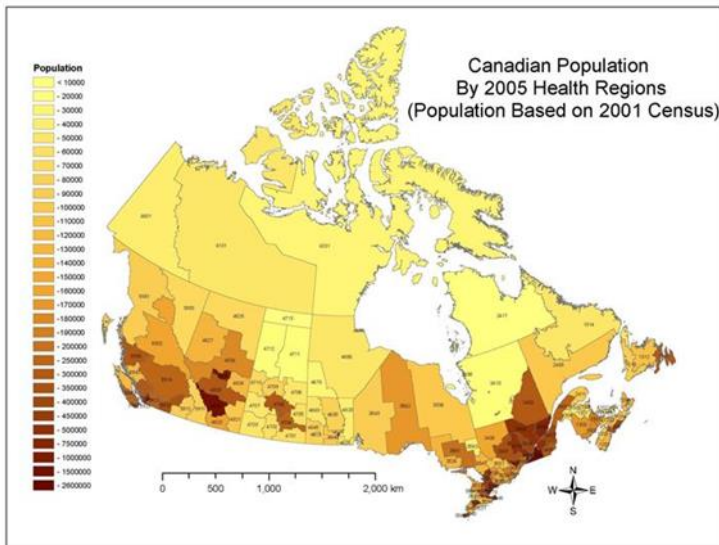


SOME HIGHLIGHTS OF ACHIEVEMENTS AND ACTIVITIES

To gain a better understanding of radon concentrations in homes across Canada, radon survey completed in 2011.

2009-2011 survey:
3-month alpha-track measurements
14,000 homes in 121 Health Regions

4% more Canadians live in homes with $Rn > 200 \text{ Bq/m}^3$ than previously estimated.



Health Canada – Radon Educational Toolkit



Radon Outreach Resources



Radon Key Messages

Radon Communication Products

Public Inquiry Standard Responses

PDF files:

- Hazardcheck guide: Hazards in your environment / What you can do
- Radon: Is it in your home? Information for Health Professionals
- Radon: Is it in your home?
- Radon: What you need to know
- It's Your Health – Radon
- Radon – Factsheet for smokers

Close

Take The Lung Association's radon quiz

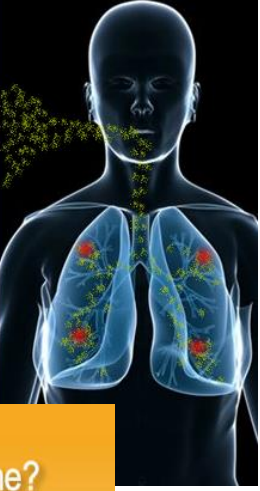
START

Add the Quiz to your own site

Radon gas is everywhere, the question is how much is in your home? If the level is high, your family may be at risk.

Lung Cancer Risk

When you breathe radon gas into your lungs there are particles that lodge into the tissue and continue to decay. As the radon particles decay they release bursts of energy that can damage the lung tissue cells. As the cells are damaged over time it can lead to the development of cancer.



What can you do to help reduce the radon level in your home?

Seal major entry routes for radon such as sump holes, cracks in foundation and exposed soil and rock in crawlspaces.



Moving Forward 2012 and Beyond

Completion of the federal building radon testing project and cross Canada residential radon/thoron survey.

Encourage the adoption of the revised building codes across the country

Implementation of a Canadian certification program

Continue research on radon remediation with an emphasis on large buildings

Continue to build on the successful stakeholder partnerships to help motivate Canadians to take action to reduce their indoor radon exposure

Continued progress in all 5 areas of NRP to ensure the success and sustainability of the Program



Thanks