

Radon in Child Care Facilities

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Acknowledgements:

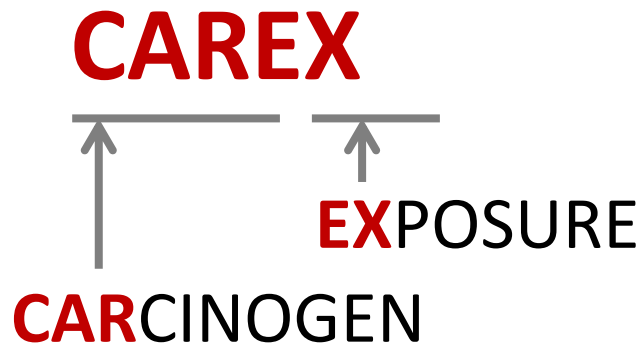
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www.sfu.ca/radon⁽¹⁾

www.carexcanada.ca⁽²⁾



What is CAREX Canada?



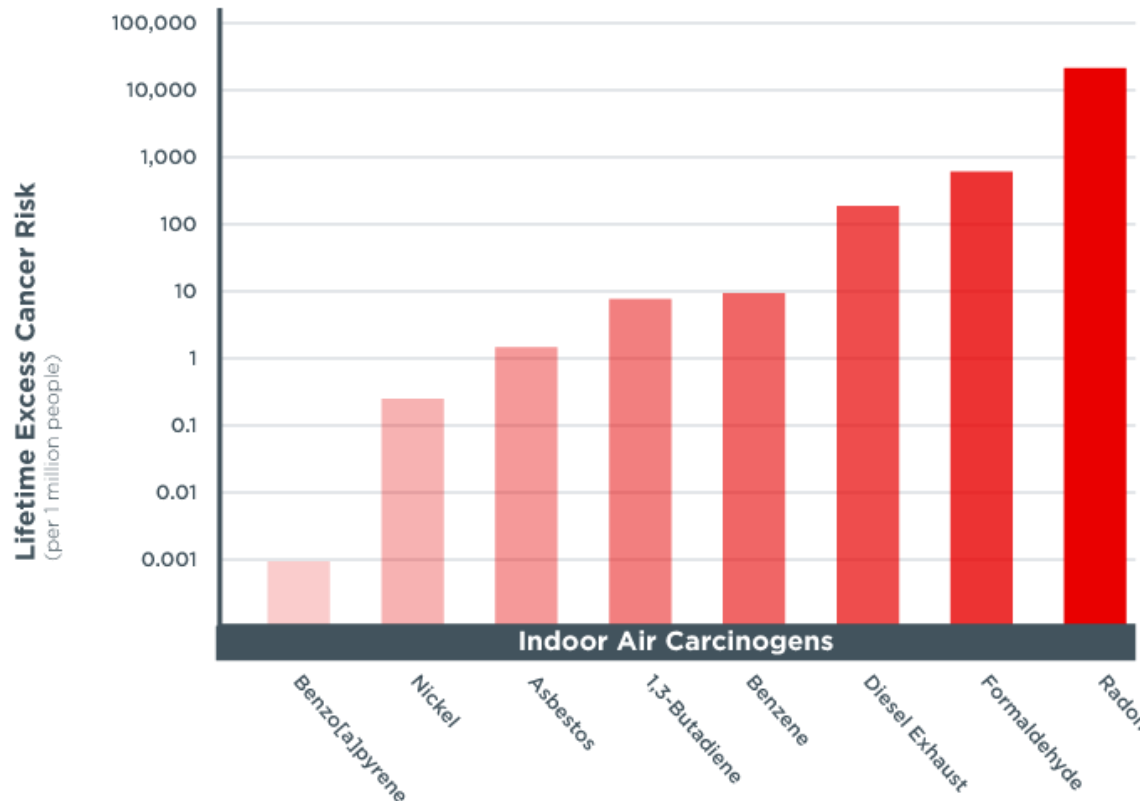
- Originally funded as a pilot project by WorkSafe BC in 2003
- Host institution is Simon Fraser University (SFU)
- Fully funded by Canadian Partnership Against Cancer (CPAC)⁽³⁾ in 2008 - renewed 2012, and now to 2022

What is CAREX Canada?

Goals:

- Informing efforts to reduce Canadians' exposures to known and suspected carcinogens.
- Helping lower Canadians' exposures to known and suspected carcinogens in workplaces and communities.
- **Radon** is identified as the highest priority indoor air exposure for cancer prevention efforts
 - Excess of approximately 23,000 cancer cases per million people exposed over a lifetime

CAREX indoor air exposure assessment



Assessed through
Lifetime Excess Cancer
Risk calculation

Radon gas is the highest
priority exposure in
Canadian indoor
environmental settings

CAREX Canada risk estimates for indoor air carcinogens show that radon gas is the highest priority exposure in Canadian settings.

Setton E, et al. "Risk-based indicators of Canadians' exposures to environmental carcinogens." *Environ Health* 2013;12(1):15.



www.carexcanada.ca

Need identification

- United States of America (USA) 9 states require radon testing in child care centers by law⁽⁵⁾
- Almost half of parents reported using some form of child care⁽⁴⁾
 - Most child care facilities are at ground level or in basements⁽⁴⁾
- Current Phase 1 – British Columbia (BC), Alberta and the Yukon examined
 - Licensed only, not specific to Indigenous facilities



Radon is a radioactive gas that is the leading cause of lung cancer in non-smokers. It is released when uranium breaks down in the ground, and can enter child care settings in the various ways pictured here. Mitigation strategies can reduce this exposure in both new and existing structures.



Project – Case Studies: Phase 1

Radon Testing Policy in Child Care Facilities in British Columbia, Yukon and Alberta: Case Studies to Assess Current Legislation and Practices (2018)

Prepared by: Anne-Marie Nicol, Sandy Shergill, Crista Bartolomeu and Lindsay Forsman-Phillips

- To provide an overview of current policies and practices that exist in Canada in regions where efforts are being made to address radon in child care facilities
- To create a narrative of key stakeholder experiences about developing programs and policies for radon testing in child care facilities
- To collate the successes and challenges in creating these policies and programs as a tool and resource for other jurisdictions

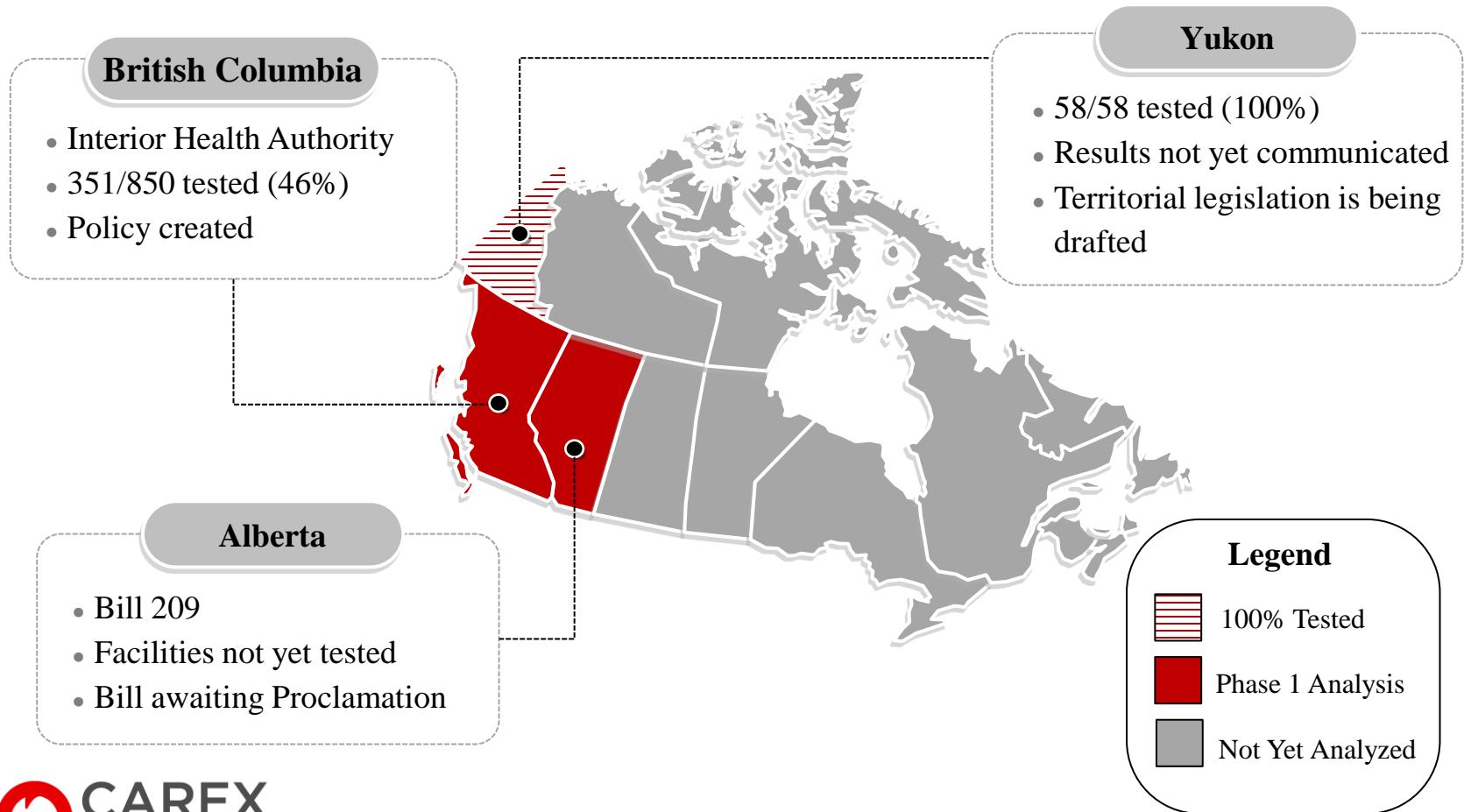
Methodology

- Policy Scan
 - Revealed existing programs and relevant policy
 - Identified stakeholders involved in the development and direction of existing policies
- Semi-Structured Interviews
 - Formal invitations sent via email, followed by verbal consent to participate
 - 40-60 minute interviews
 - 2 key stakeholders in each region
 - Follow up with additional questions or clarification via email
- Report Development
 - Coding
 - Transcription of interview data
 - Analysis

Key findings

- Regions approached radon testing in child care facilities in different ways
- Programs were most effective when championed by Public Health professionals
- Success was achieved on a smaller scale
- There is a lack of awareness of the risks of radon exposure
- A common barrier to engage child care facilities and for participation in radon testing programs, was a fear of the costs associated with testing and remediation
- Quality control for facilities performing do-it-yourself tests was a concern
- Financial assistance with remediation and support from Health Canada increased uptake of testing

Radon in child care facilities - Key findings



Case study – BC summary

Interior Health Authority (IHA)⁽⁶⁾ → 46% of child care facilities have been tested within this jurisdiction

- December 2010: A memorandum of agreement between Health Canada⁽⁷⁾ and the IHA.
- December 2013: IHA sent free radon test kits to each of the 850 licensed child care facilities along with an educational letter. A duplicate letter was sent out January 30, 2014 to 200 child care facilities.
- November 2014: All facilities were followed up with and another free radon test-kit was provided.
- May 2017: A 91-day radon test is required for licensure or license renewal.

Successes → championed by a strong team, smaller jurisdiction, Health Canada support, authority over licenses

Challenges → self-testing accuracy, initial engagement, mitigation focus

Case study – Alberta summary

Private Member's Bill (209)⁽⁸⁾, 2017 “The Radon Awareness and Testing Act” → the bill has yet to be enforced

- Pre-Bill Conception: Evict Radon campaign⁽⁹⁾ & Alberta' Building Code⁽¹⁰⁾ efforts led to the Bill's introduction.
- December 2017: The bill passed its third reading and received Royal Assent.
- Post-Royal Assent: One year to develop the regulation's details and implementation.

Successes → Formal legislation, entire province reach, stage of regulation

Challenges → Lack of funding to implement, lack of clarity of bill's content

Case study – Yukon summary

Government of the Yukon⁽¹¹⁾ → (58) 100% of child care facilities tested in comprehensive program

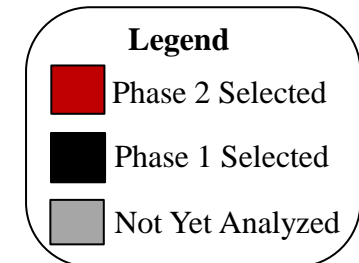
- 2009: Capital Asset Audit report highlighted unaddressed radon tests performed in 2007-2008.
- Winter 2017: Program to test all child care centers started.
- April 2018: All radon tests retrieved and sent for analysis.
- December 2018: Results have not yet been shared with child care facility operators.
- December 2018: The legislation to address radon testing in child care facilities in the Yukon remains in the preliminary stages of drafting.

Successes → education in advance of participation, free test kits, professionally deployed, personal communication, government involvement, voluntary participation

Challenges → scheduling of radon test kit deployment and collection, mailing details

Future steps

- Expanding across Canada to document development in other provinces
 - Phase 2: Manitoba, New Brunswick, Nova Scotia, Quebec
- Enable transparency of testing programs and policy options to allow other provinces to learn from current initiatives and policy when mobilizes within their own context
- Dissemination of case studies of all provinces to highlight successes and challenges of radon testing in child care facilities



Thank You!

Questions?

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- (11) The Government of Yukon. 2019. [Available from: <https://www.gov.yk.ca/>].