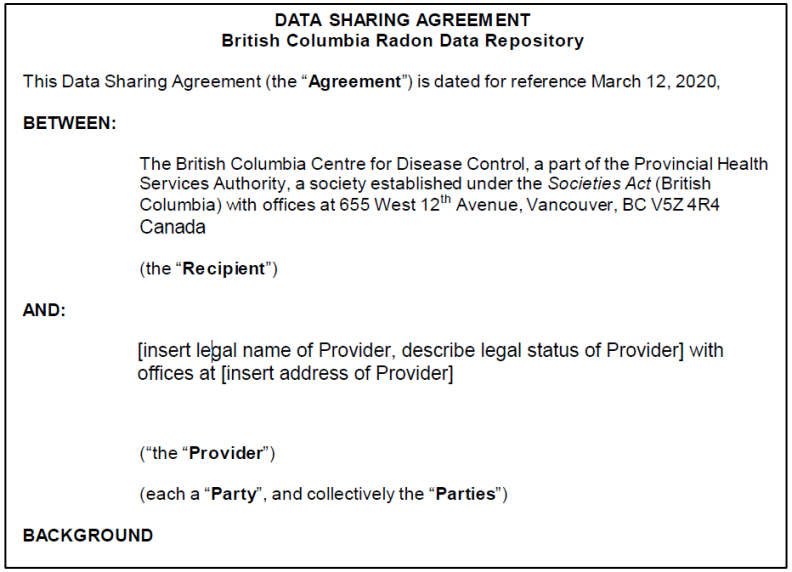
Where can we find BC indoor radon data?

Industry, research groups, government agencies, etc.

BC Radon Data Repository (BCRDR)

How have we compiled BC indoor radon data?

formalized with a…



DATA SHARING AGREEMENT
British Columbia Radon Data Repository

This Data Sharing Agreement (the "**Agreement**") is dated for reference March 12, 2020,

BETWEEN:

The British Columbia Centre for Disease Control, a part of the Provincial Health Services Authority, a society established under the *Societies Act* (British Columbia) with offices at 655 West 12th Avenue, Vancouver, BC V5Z 4R4 Canada

(the "**Recipient**")

AND:

[insert legal name of Provider, describe legal status of Provider] with offices at [insert address of Provider]

("the "**Provider**")

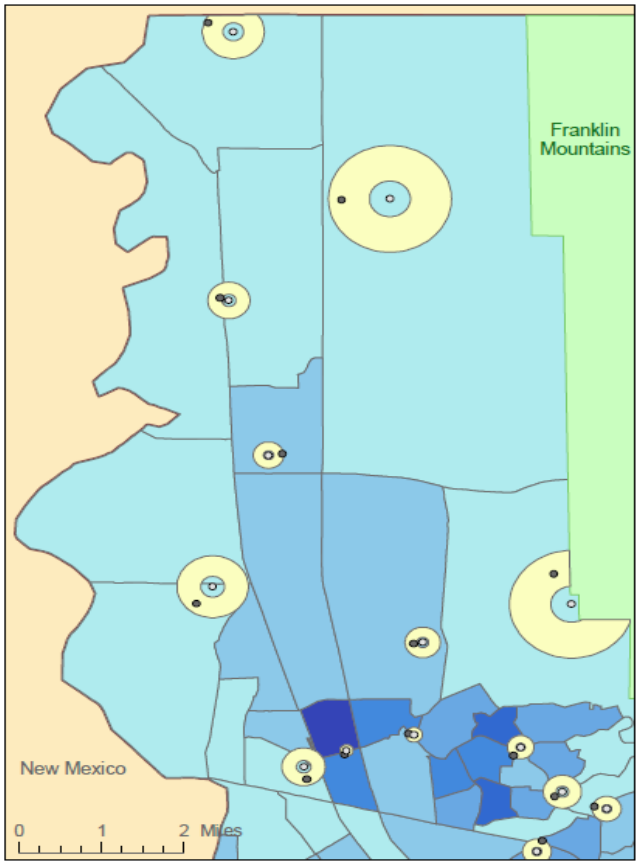
(each a "**Party**", and collectively the "**Parties**")

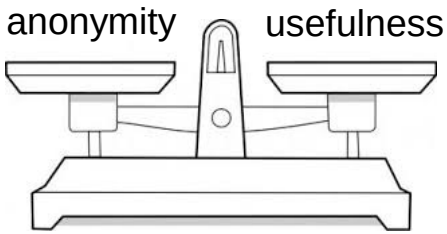
BACKGROUND

Key points:

- For research and health protection work
- No person-level data
- Anonymized spatial data
- Formal data request process

How will this data be made anonymous?

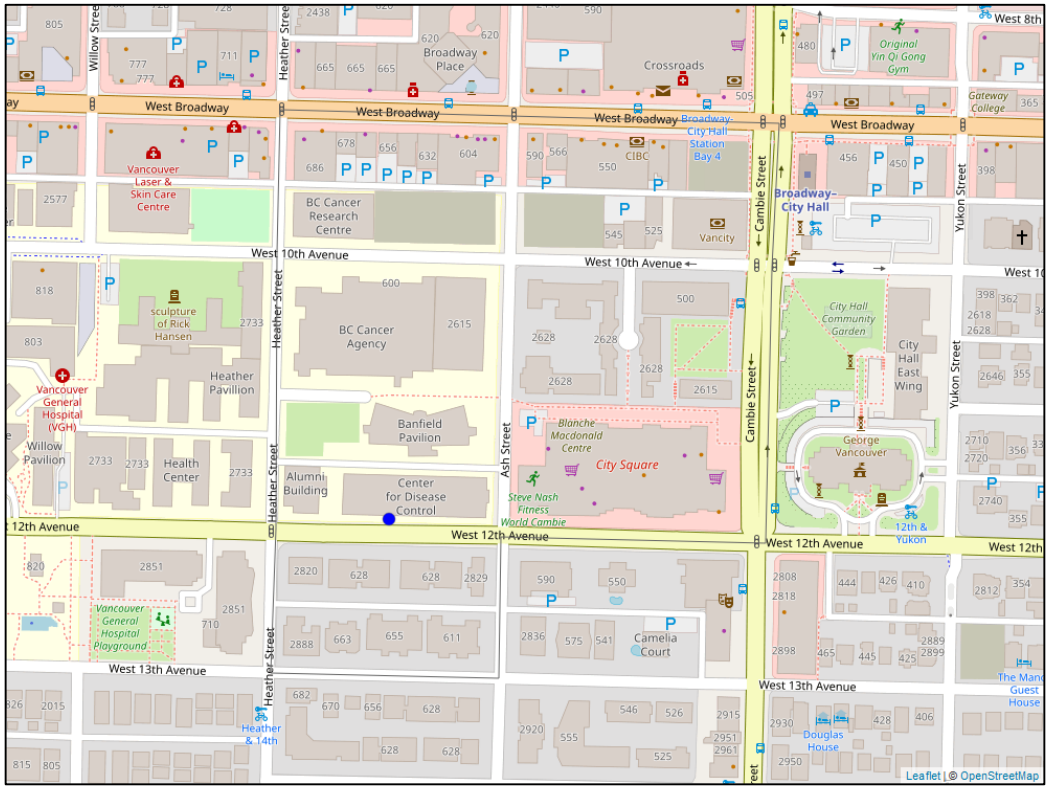




Stinchcomb D. Procedures for geomasking to protect patient confidentiality. InESRI international health GIS conference 2004 Oct 17 (pp. 17-20).

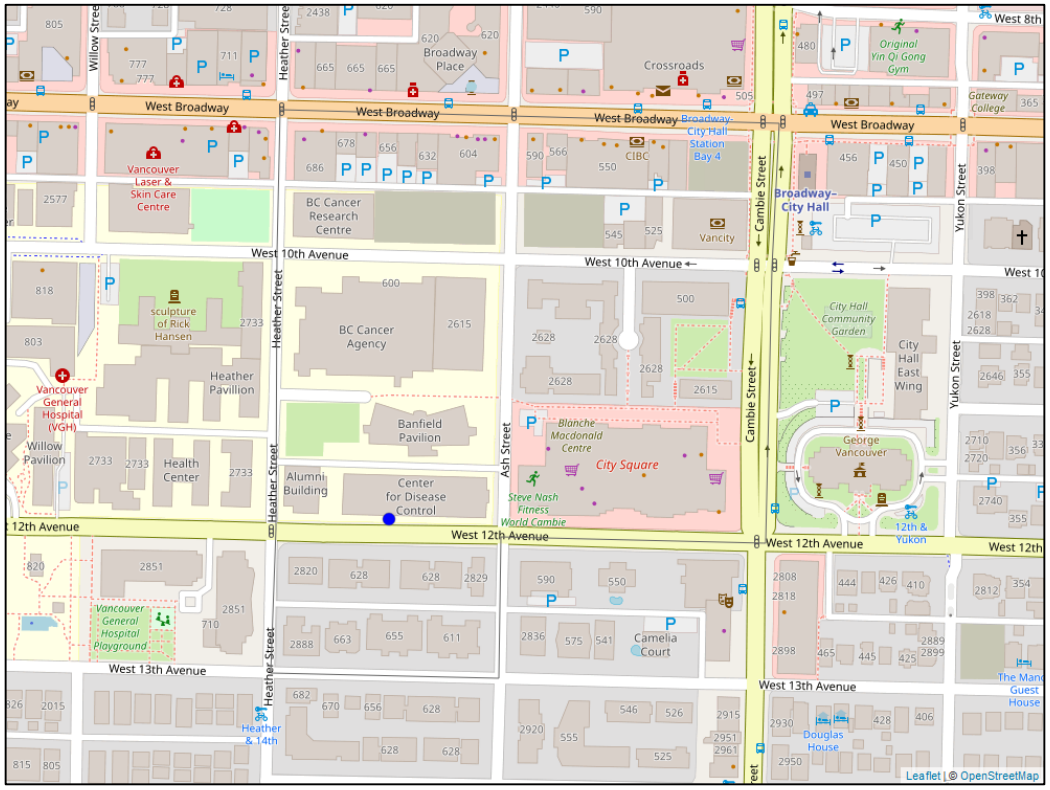
How will this data be made anonymous?

Example: BCCDC, 655 W 12th Ave, V5Z 4R4, Vancouver, BC



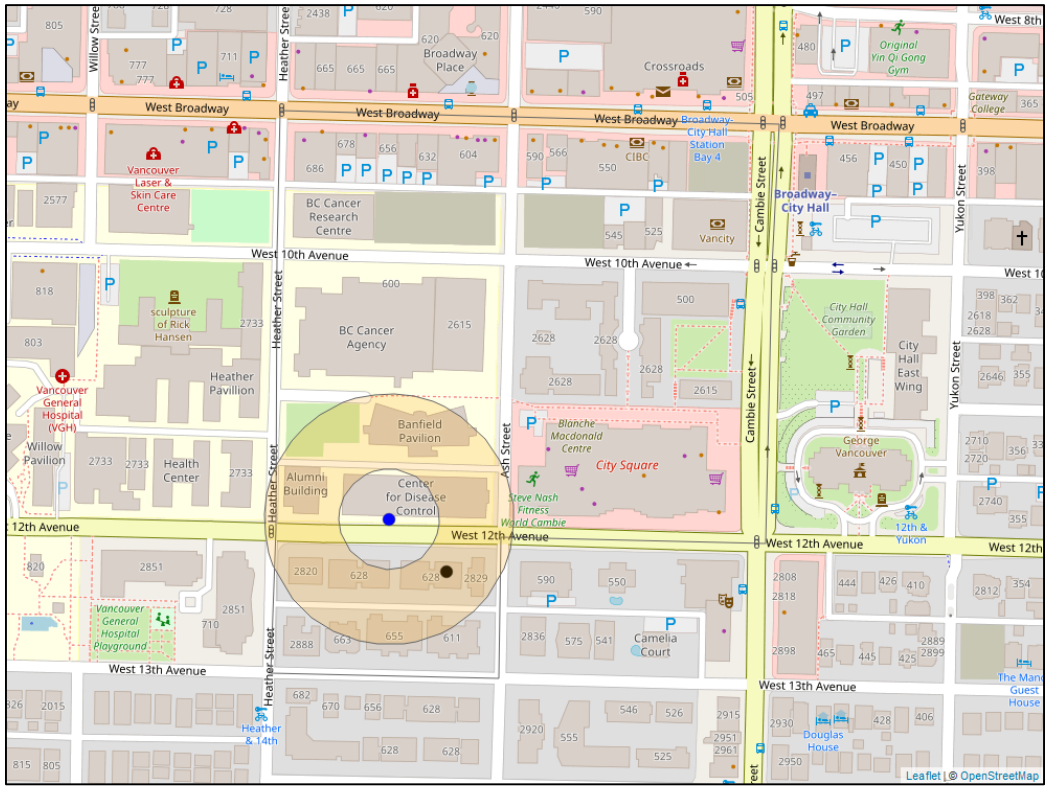
How will this data be made anonymous?

Example: V5Z 4R4 → (1209859, 475850.6)



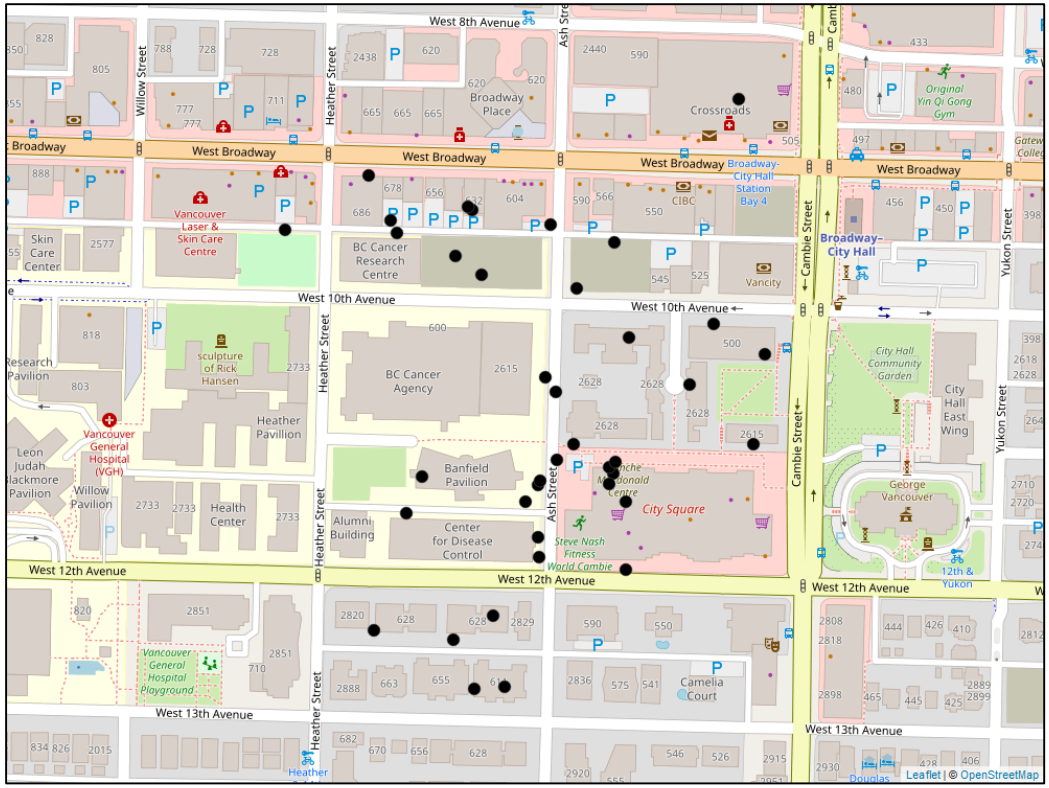
How will this data be made anonymous?

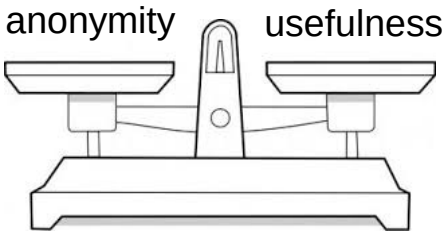
Example: (1209859, 475850.6) → (1209904, 475813.6)



How will this data be made anonymous?

Example: (1209904, 475813.6) + Vancouver + FSA + LHA + etc.





At a glance…

17,555 unique measurements

13,608 unique buildings

14,048 residential measurements

15,334 from alpha trackers

13,269 geocoded to points

northern health
the northern way of caring

BRITISH COLUMBIA LUNG ASSOCIATION

Health Canada

Peter Chataway, Fine Home Designs

BC Centre for Disease Control
An agency of the Provincial Health Services Authority

EVICT RADON

TAKE ACTION ON RADON

LITTLE BEAR ENGINEERING

Interior Health
Every person matters

AMERISPEC INSPECTION SERVICES

RADON PROTECT NELSON

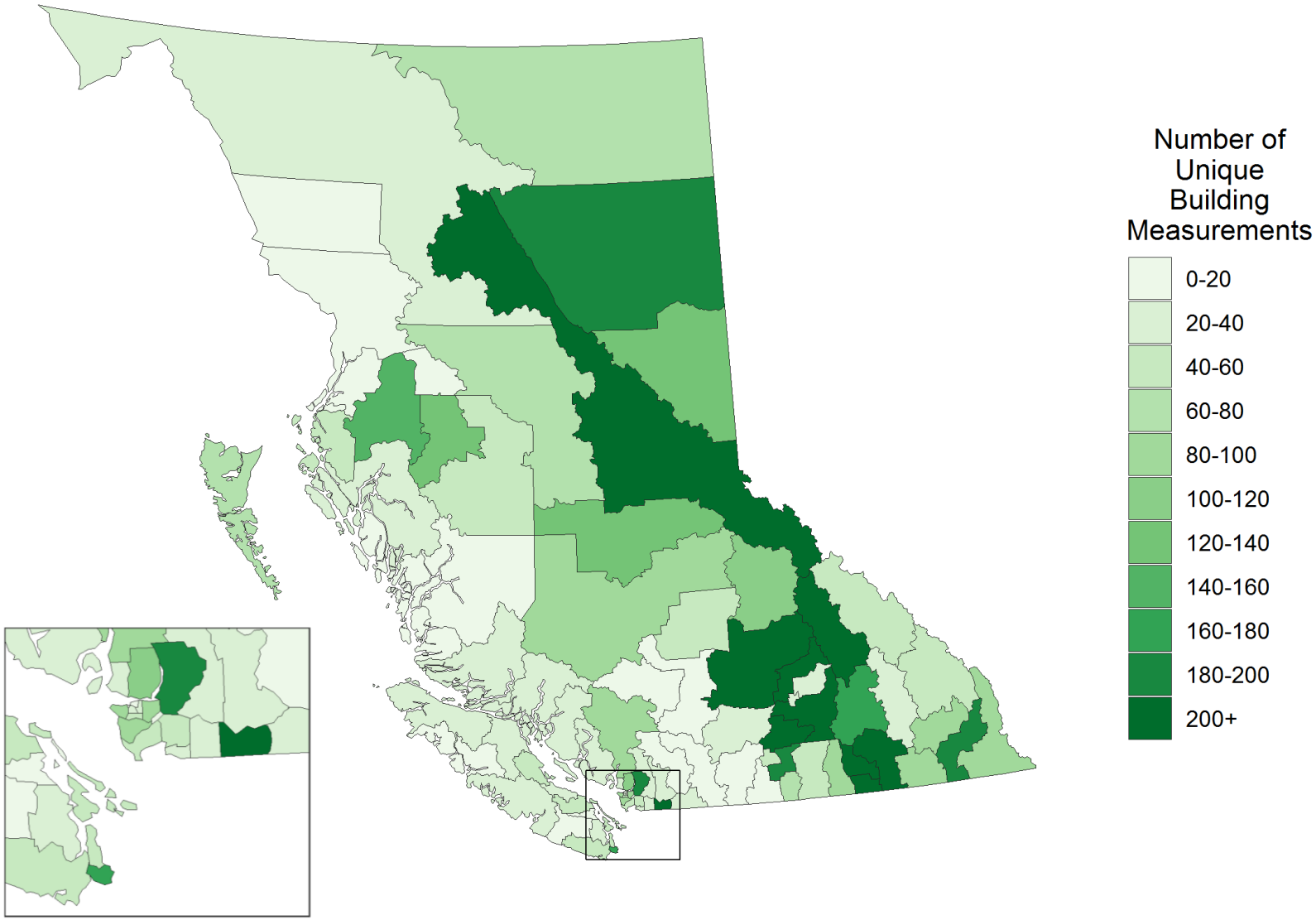
Donna Schmidt Lung Cancer Prevention Society
Reducing Risk of Lung Cancer from Radon

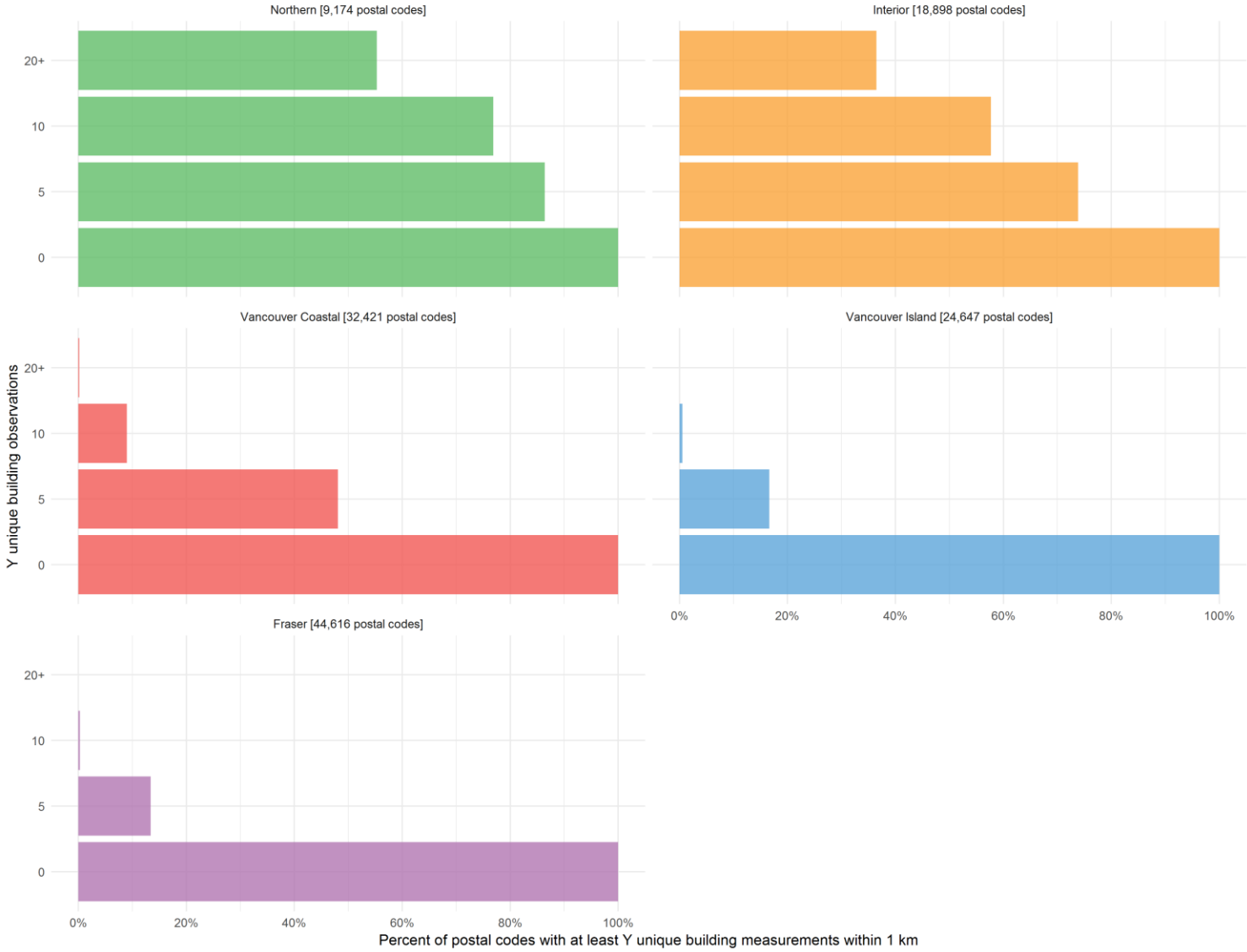
STERLING IAQ Consultants

EnergyAdvise
Energy Efficiency Consulting
Radon Protection Services
East Kootenays | West Kootenays

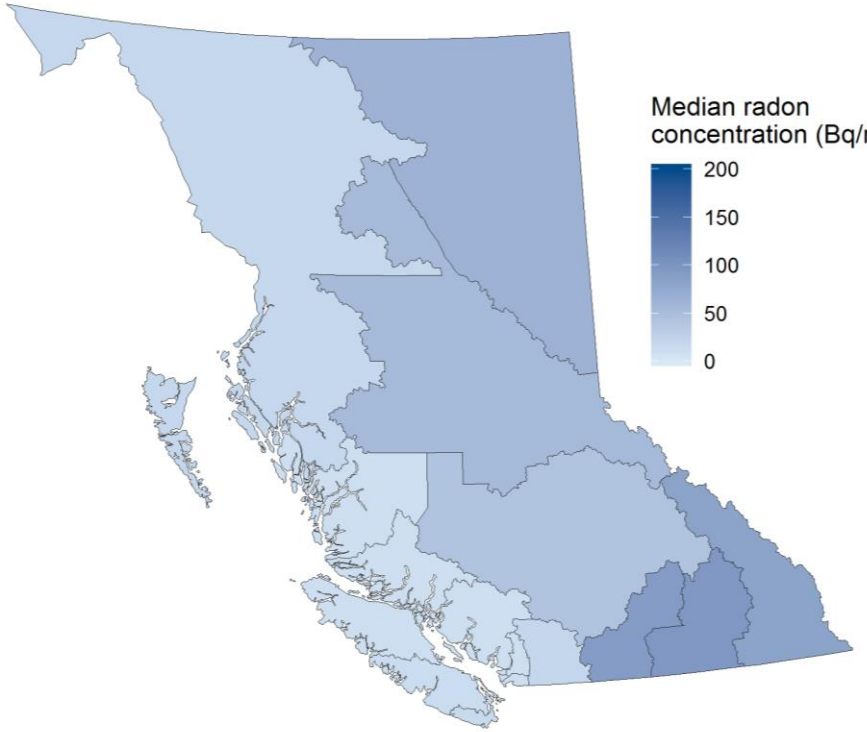
Provincial Health Services Authority
Province-wide solutions. Better health.

BC Centre for Disease Control
Provincial Health Services Authority

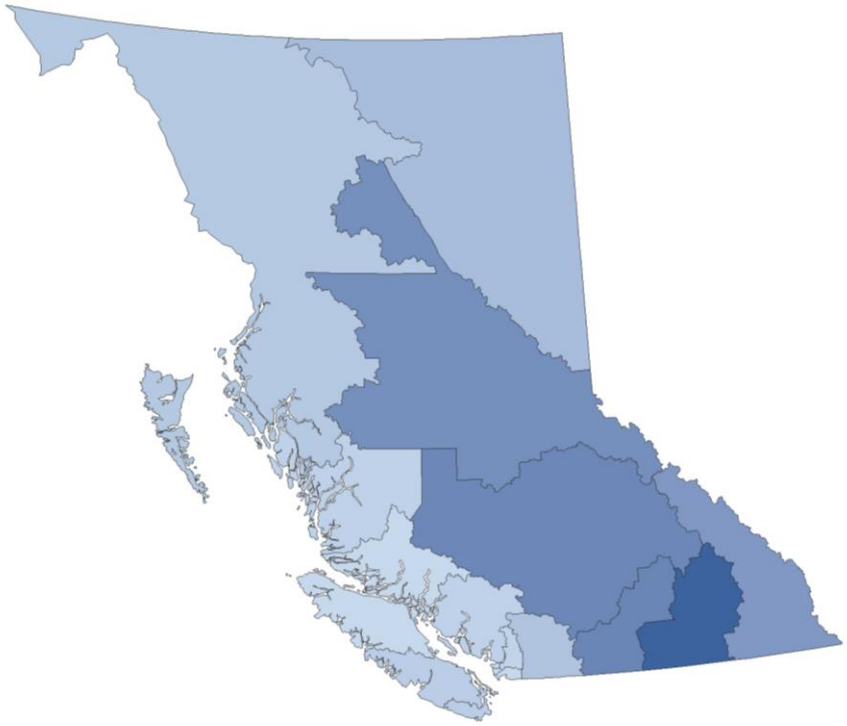



Northern [9,174 postal codes]
Interior [18,898 postal codes]
Vancouver Coastal [32,421 postal codes]
Vancouver Island [24,647 postal codes]
Fraser [44,616 postal codes]
Y unique building observations
20+
10
5
0
0%
20%
40%
60%
80%
100%
Percent of postal codes with at least Y unique building measurements within 1 km

Health Canada Cross-Canada Survey
n = 1,818

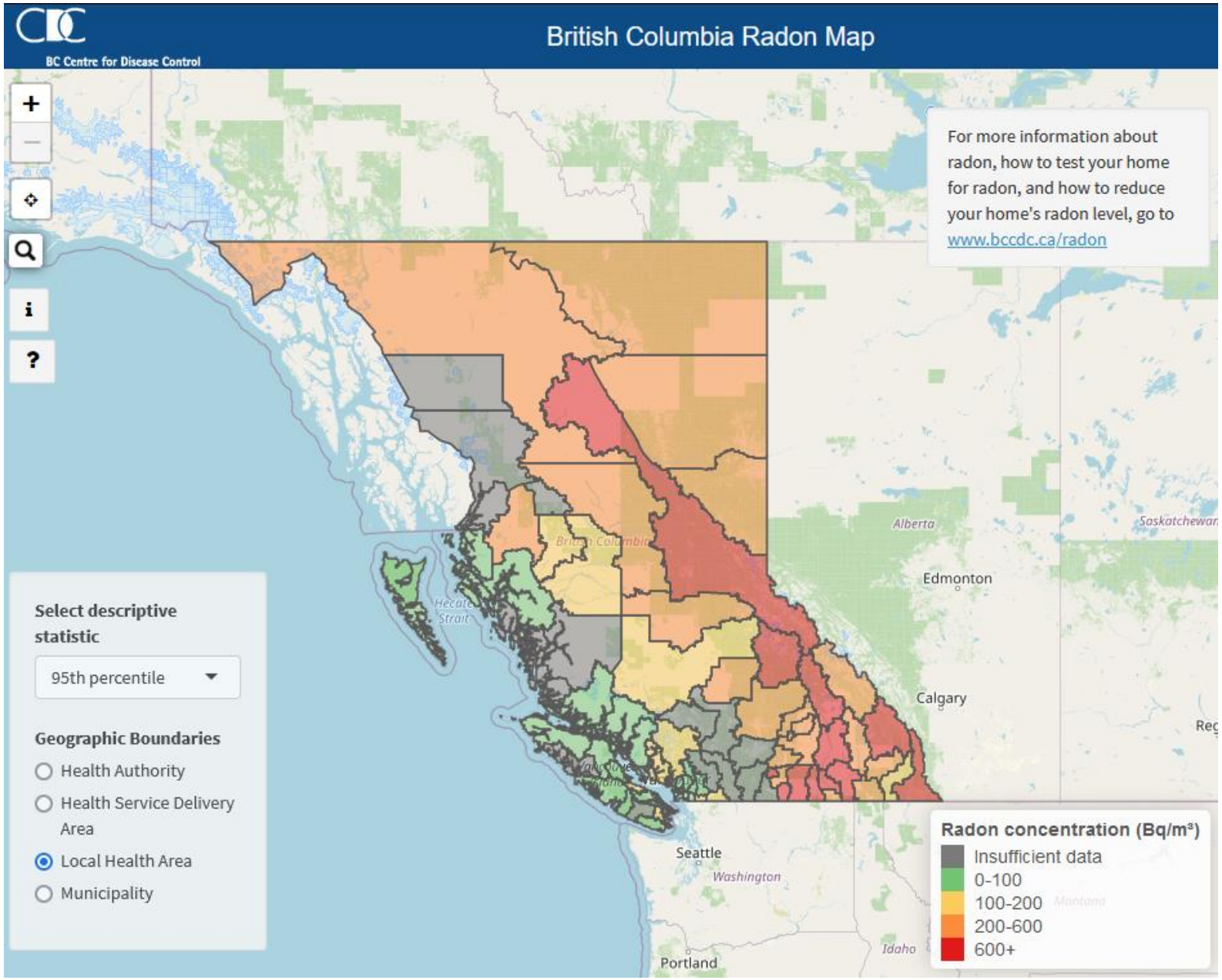


Homes not included in the Cross-Canada Survey
n = 10,496

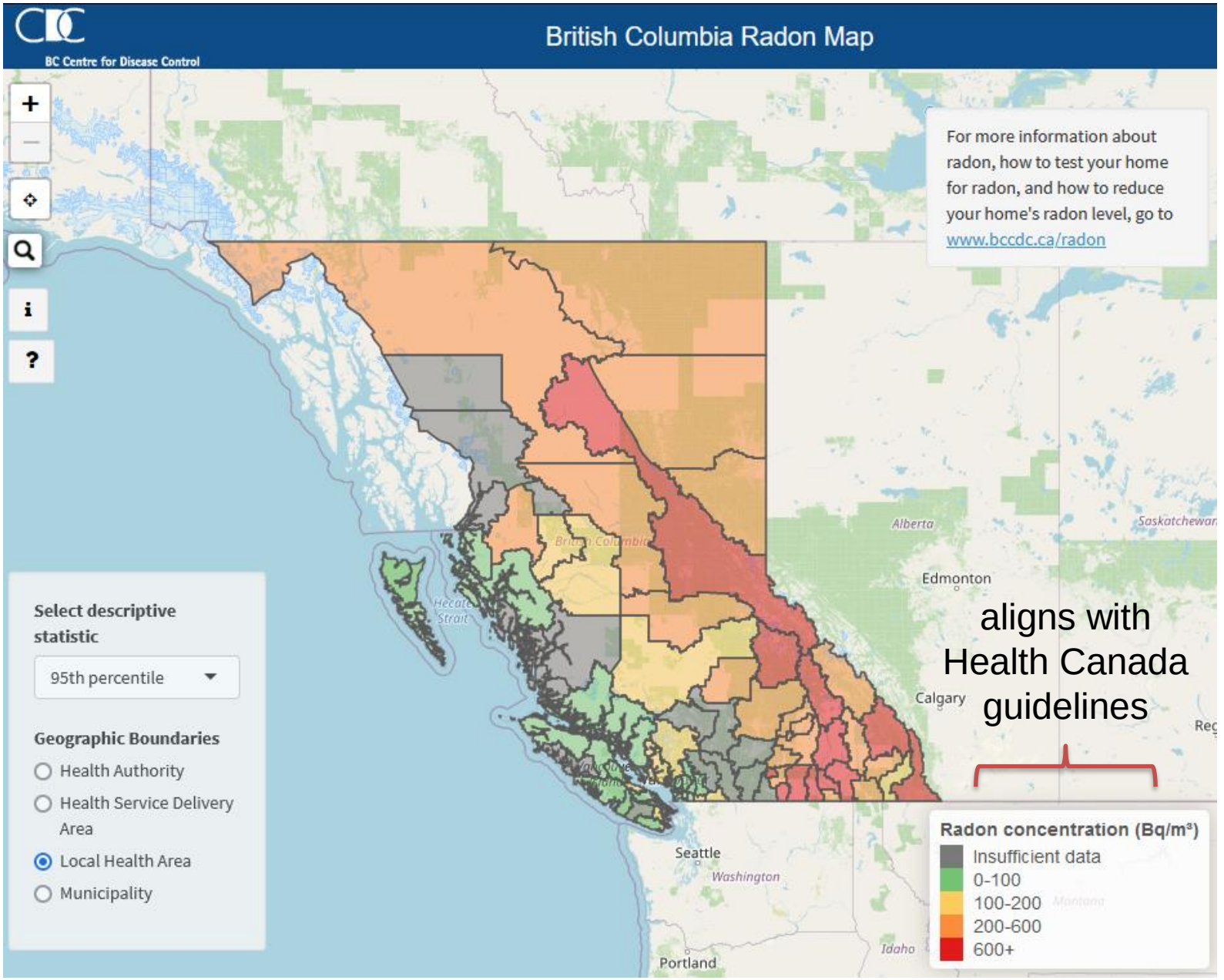


Chen J, Moir D, Schroth E. Cross-Canada Survey of Radon Concentrations in Homes—Final Report. Radiation Protection Dosimetry. 2012;151(1):143-58.

bccdc.shinyapps.io/bcradonmap



bccdc.shinyapps.io/bcradonmap

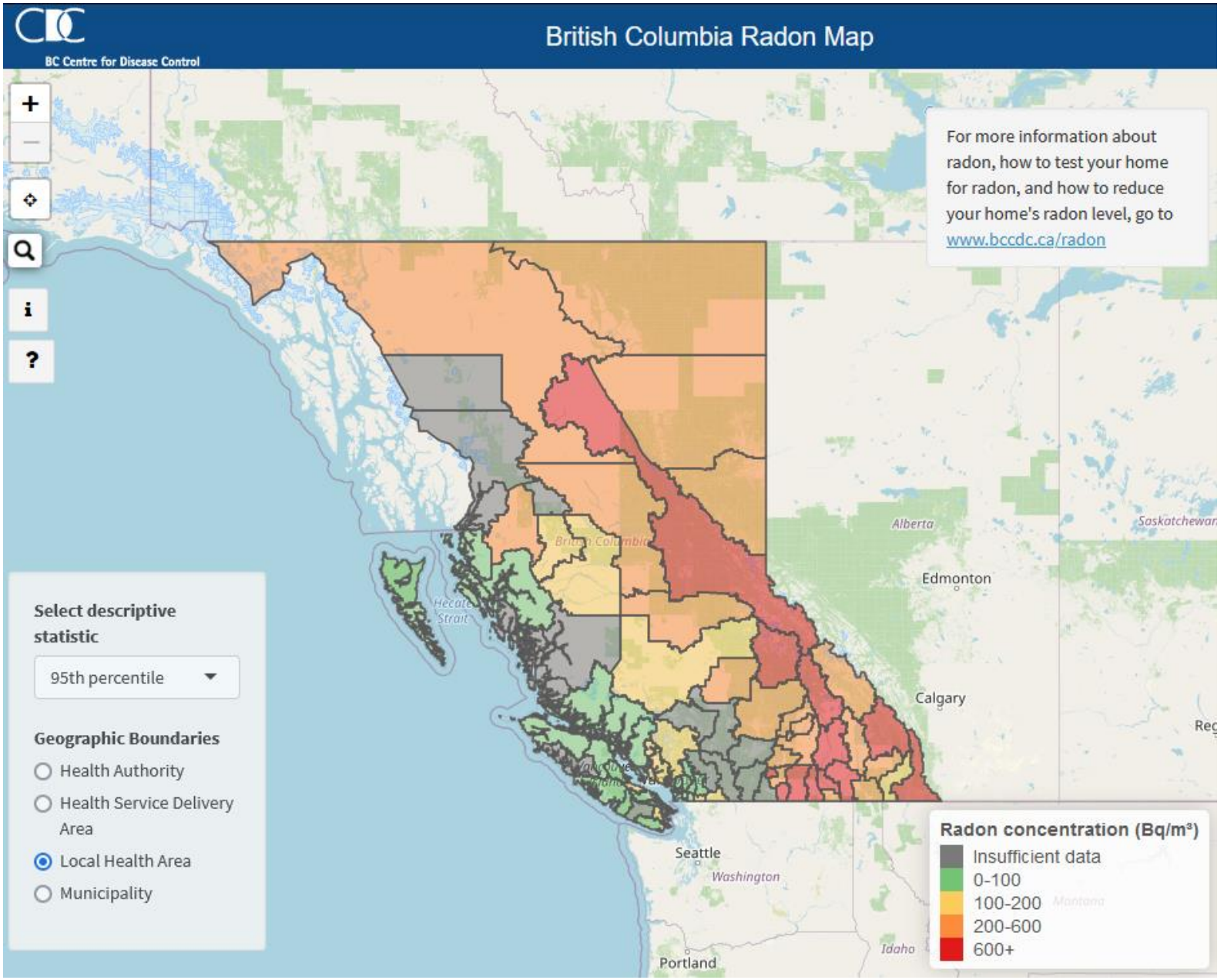


display toggles

aligns with Health Canada guidelines

bccdc.shinyapps.io/bcradonmap

search functions



bccdc.shinyapps.io/bcradonmap

Indoor Radon Exposure in Interior

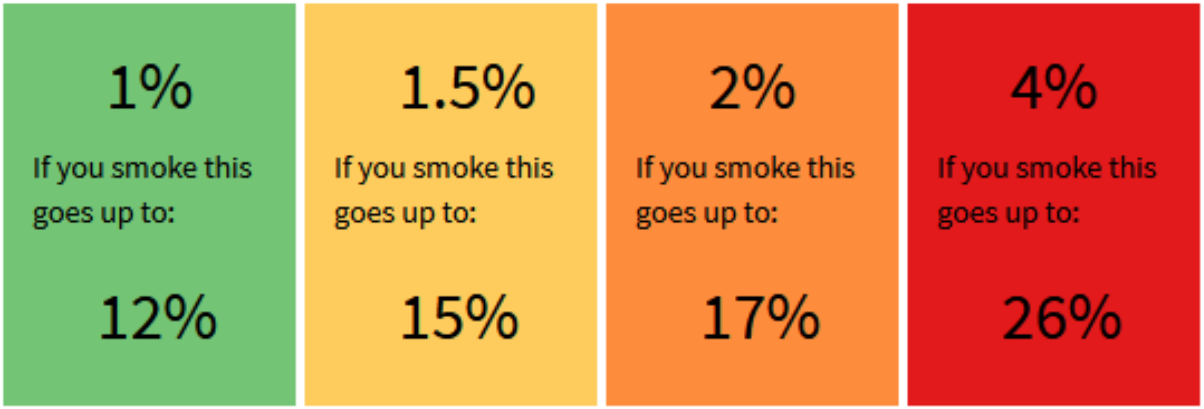
These coloured homes represent the estimated proportion of homes in this region that range in radon levels from very low (0-100 Bq/m^3) to high (600+ Bq/m^3). These estimates are based on **7234** samples taken in this region.

In this region, we estimate that **28%** of homes tested are in the medium range for radon levels and **6%** of homes tested are in the high range for radon levels.

Health Canada recommends to test every home for radon because levels can vary widely from house to house, even in the same neighborhood.

bccdc.shinyapps.io/bcradonmap

The coloured blocks below show your lung cancer risk from living in a home with different levels of radon:



There are home improvements you can make to reduce the radon in your home, but you need to test for radon to know it's a problem. To reduce your risk of lung cancer, consider testing your home for radon, especially if you smoke.

For more information on how to test your home for radon, where to buy a radon testing kit, and how to make home improvements, go to www.bccdc.ca/radon.

Chen J. Canadian individual risks of radon-induced lung cancer for different exposure profiles. Canadian journal of public health. 2005 Sep;96(5):360-3.

bccdc.ca/radon

BC Centre for Disease Control

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Health Info / Prevention & Public Health / Radon

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Radon in British Columbia

Due to geological factors, some areas in British Columbia have naturally higher surface levels of radon than others. Many of these areas are in the Interior and Northern parts of the province.

However, indoor radon accumulation can vary widely from building to building, even in the same neighborhood. Even if you live in an area with generally lower levels of radon, it is still recommended to test your home for radon.

The interactive map below displays indoor radon levels recorded in homes across BC. It also shows estimates for the increase in lung cancer risk caused by radon (both overall and for smokers).

The radon data used in this map is from the British Columbia Radon Data Repository (BCRDR), which houses de-identified indoor radon readings from across the province. The BCRDR includes radon readings from a variety of building types, but only residential readings were used to create this map.

BC Radon Data Repository +

Exposure to indoor radon

Radon can seep into your home through any opening that is in contact with the ground. It can move through cracks in the foundation, gaps around pipes, floor drains, and window casements. This can happen in both new and old homes.

> In general, radon levels are highest in the lowest levels of a building, such as a basement.

Radon levels can vary greatly from house to house because the accumulation of indoor radon depends on several factors, including how much uranium is naturally in the soil of the region, how much the foundation of the home was sealed during its construction, and how much ventilation occurs in the home.

The only way to know how much radon is in your home is by testing for it.

Testing for radon in your home +

Reducing radon in your home +

More information and health professional resources +