



BC Centre for Disease Control  
Provincial Health Services Authority

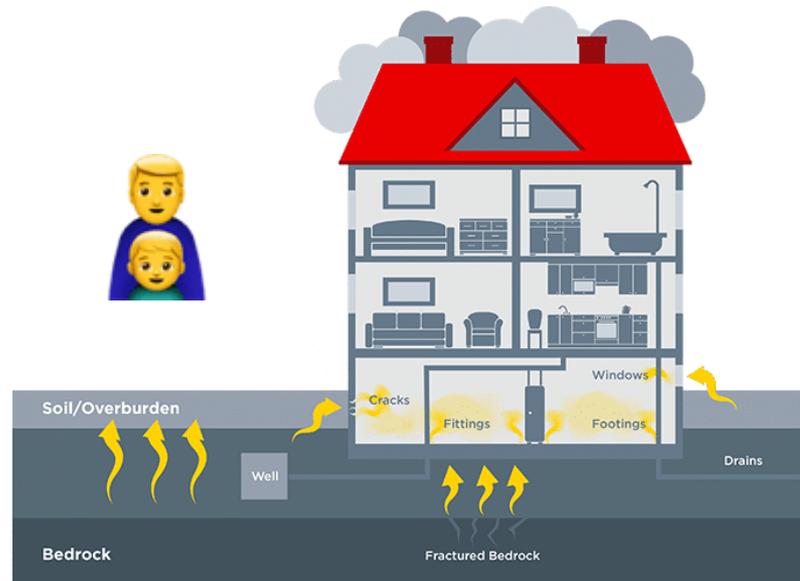
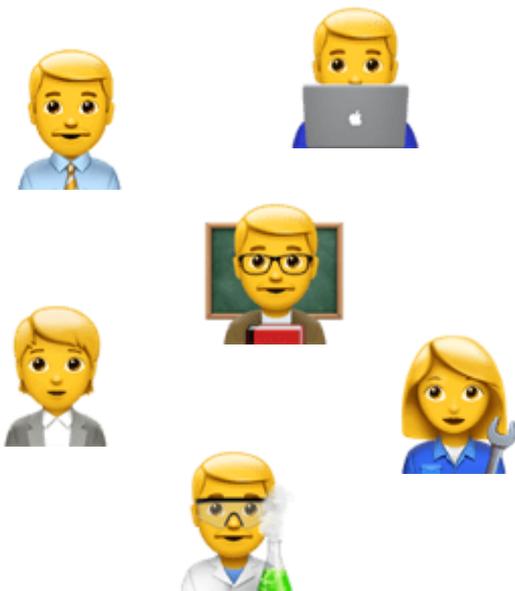
# BC Radon Data Repository (BCRDR)

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An initiative to support public health  
research and planning

Jeffrey Trieu  
Environmental Health Services  
BC Centre for Disease Control

# Where can we currently find BC indoor radon data?



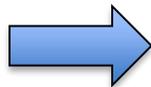
Radon is a radioactive gas that is released when uranium breaks down in the ground. It can infiltrate our homes in the various ways pictured here but mitigation strategies can reduce this exposure in both new and existing structures.



# Where can we find BC indoor radon data in the future?

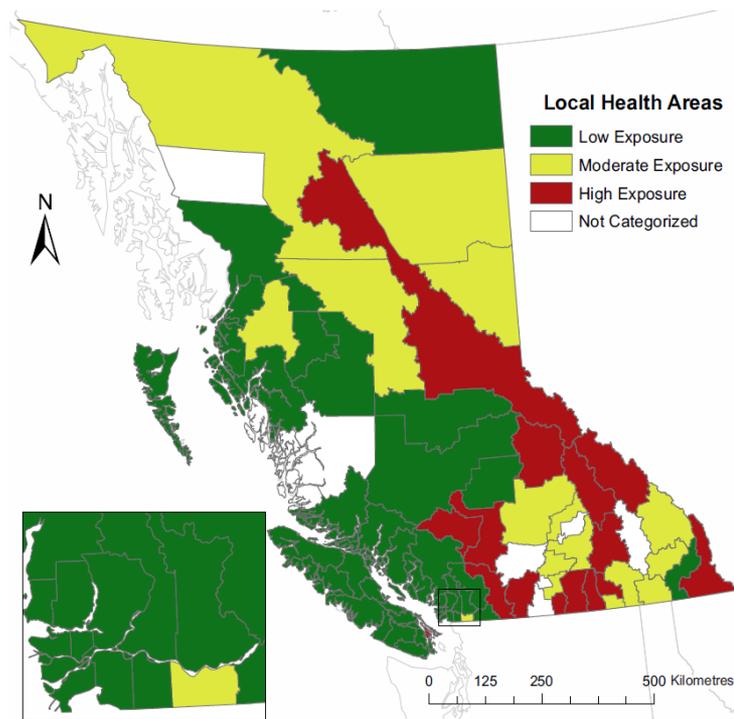
Industry, research groups,  
government agencies, etc.

BC Radon Data  
Repository (BCRDR)



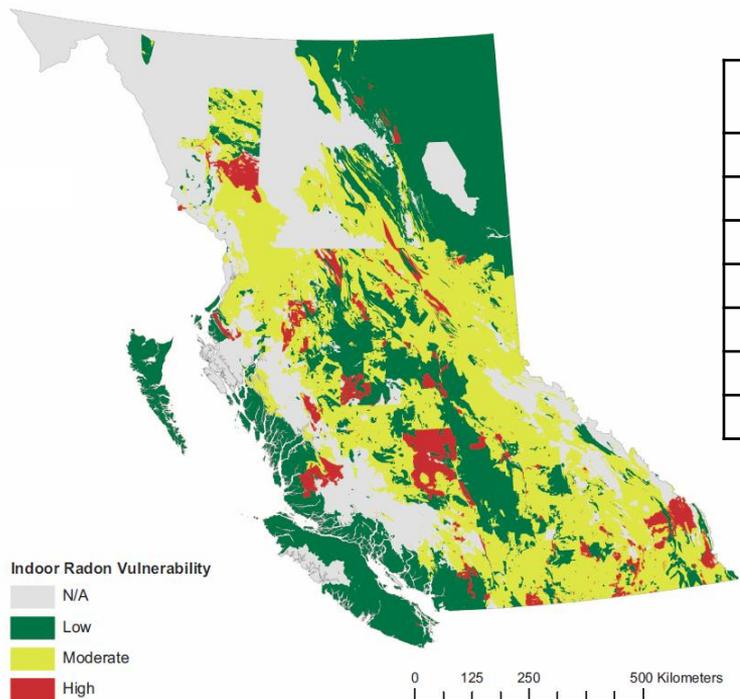
**Secure**  
**Living**  
**Accessible**  
**Flexible use**

# Has BC indoor radon data been compiled before?



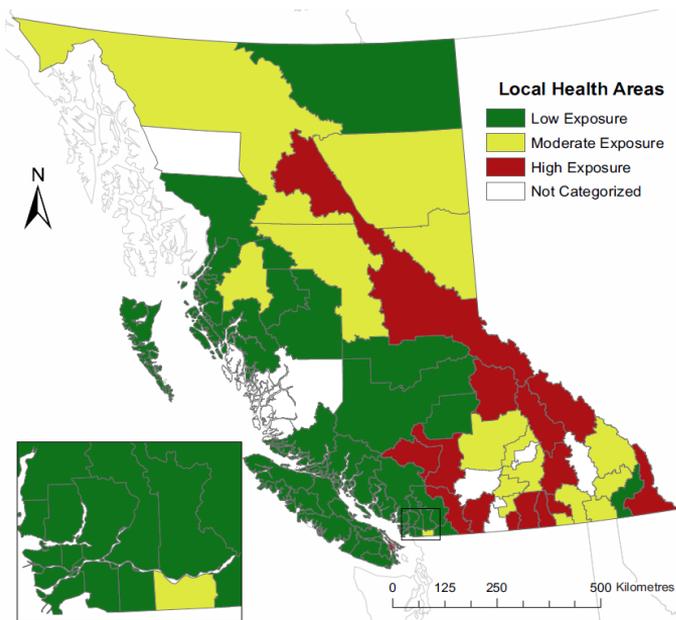
	Rauch & Henderson, 2013
Health Canada	1,817
BCCDC	1,449
NHA	339
BC Lung	263
Total sample size*	3,867

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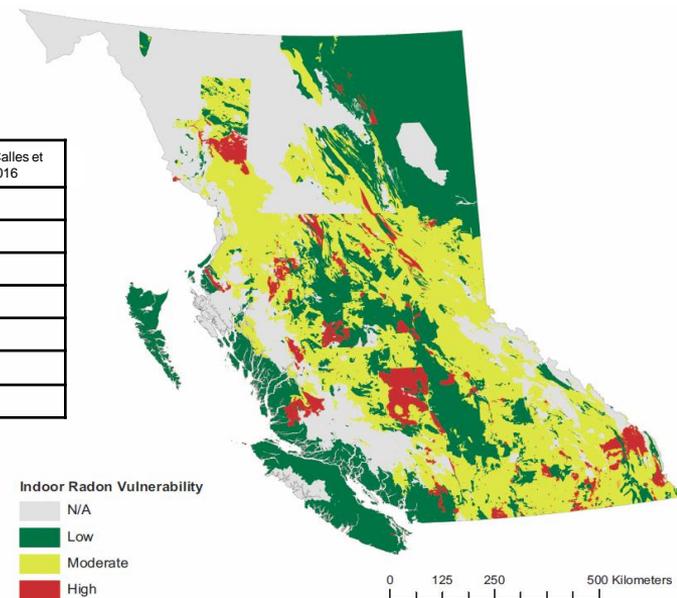


	Rauch & Henderson, 2013	Branion-Calles et al., 2016
Health Canada	1,817	-
BCCDC	1,449	1,552
NHA	339	541
BC Lung	263	1,277
A private contractor	-	292
Donna Schmidt Foundation	-	1,136
Total sample size*	3,867	4,352

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# How are we compiling data into the BCRDR?

- Confirmed and potential contributors at this point in time:



Health  
Canada



**BRITISH COLUMBIA  
LUNG ASSOCIATION**



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



**Donna Schmidt  
Lung Cancer  
Prevention  
Society**

Reducing Risk of Lung Cancer  
from Radon



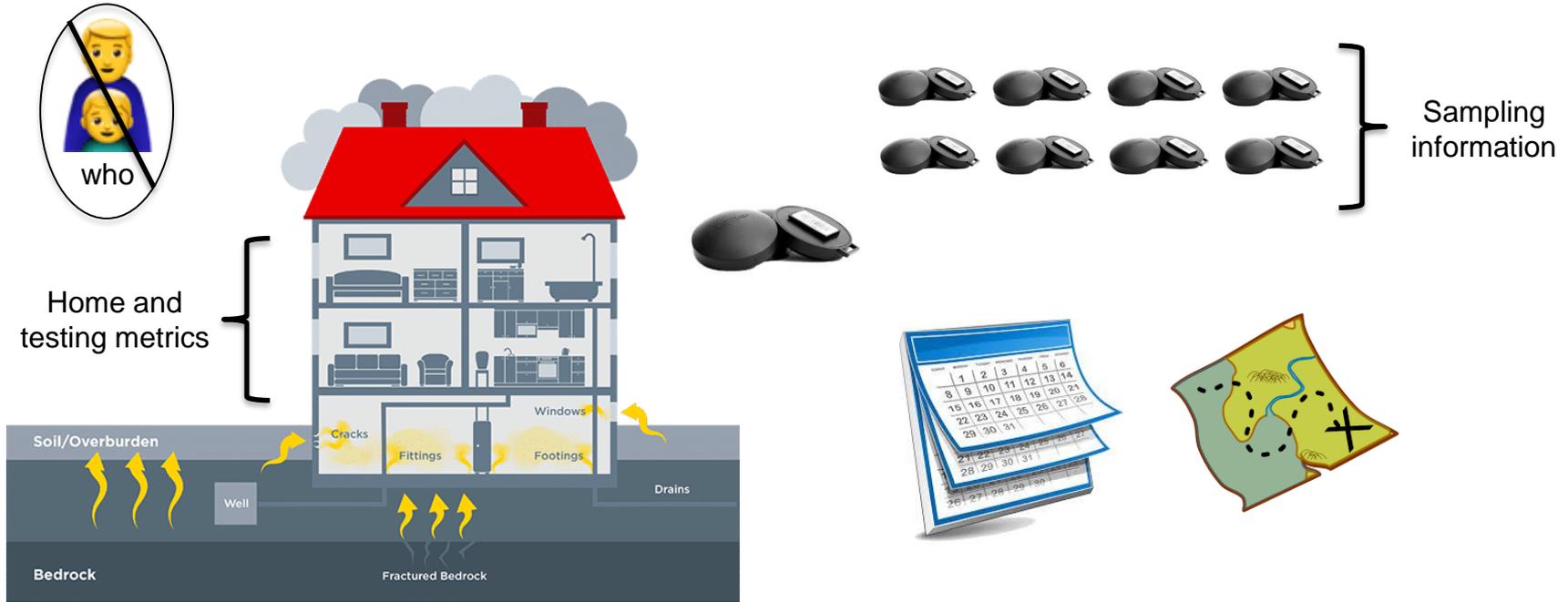
## How are we compiling data into the BCRDR?

- Data sharing talks are underway with a variety of parties
- Starts with an data sharing agreement
  - Contributor gives custody of data to BCCDC, but continues to own their data
  - No attempts to re-identify individuals/households
  - No attempts to link with other datasets on person-level



No person level data!

# What kind of data will the BCRDR hold?



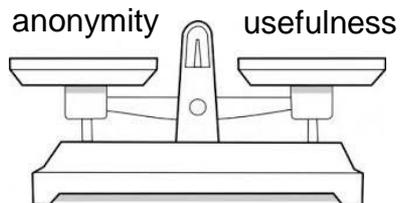
Radon is a radioactive gas that is released when uranium breaks down in the ground. It can infiltrate our homes in the various ways pictured here but mitigation strategies can reduce this exposure in both new and existing structures.



# How will BCRDR data be made anonymous?

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

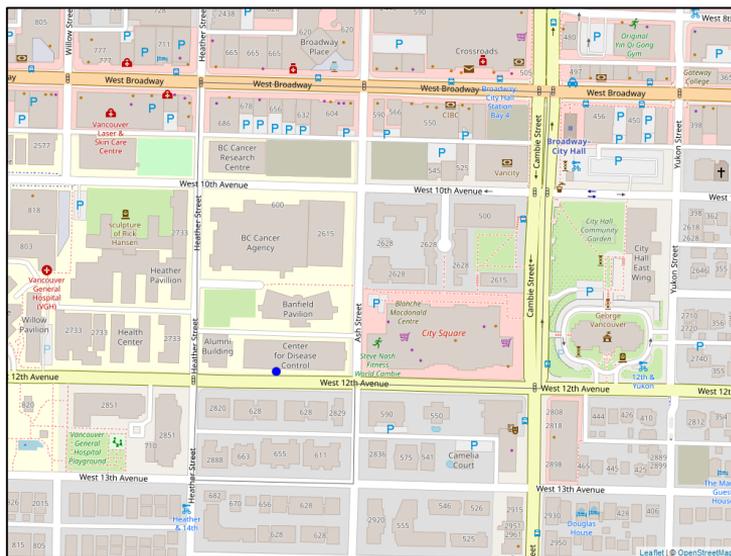
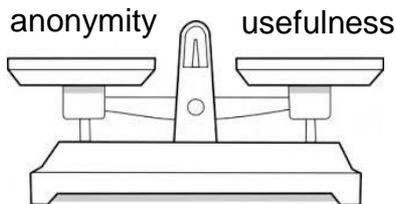
No person  
level data



# How will BCRDR data be made anonymous?

Example: V5Z 4R4 → (1209859, 475850.6)

No person  
level data



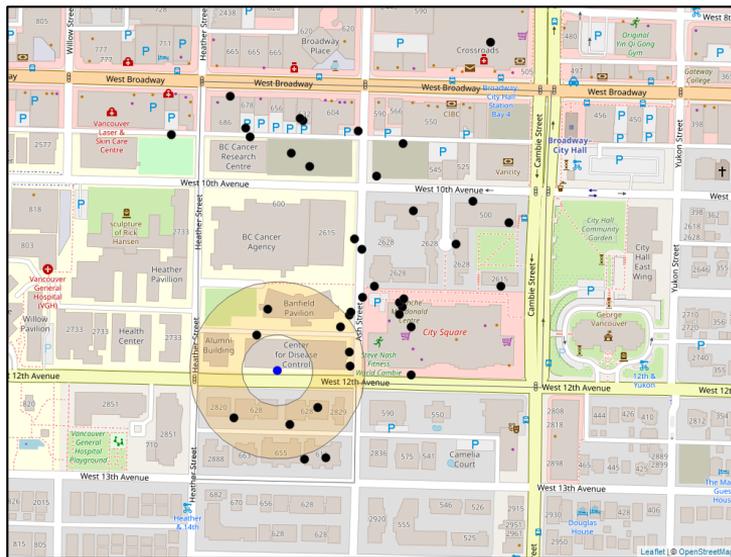
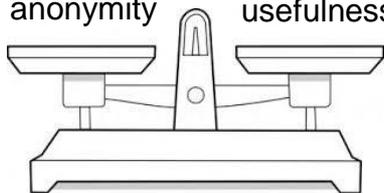
# How will BCRDR data be made anonymous?

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

No person  
level data



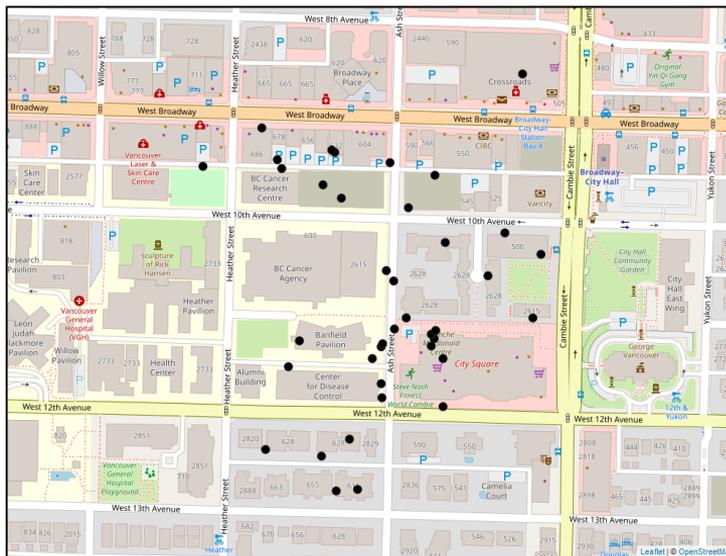
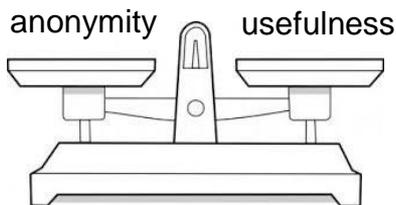
anonymity      usefulness



# How will BCRDR data be made anonymous?

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

No person  
level data



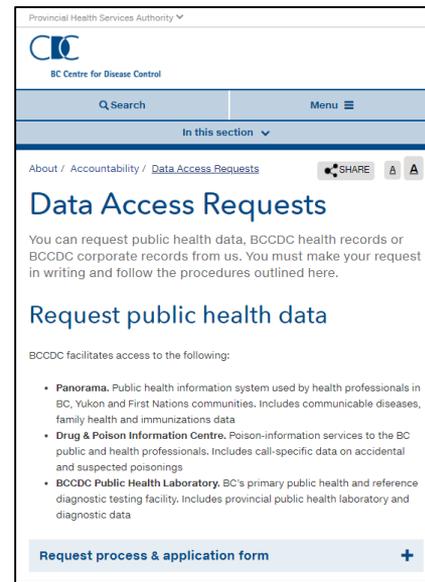
Point-based  
maps

Flexible use

# How can external users access BCRDR data?

- Through application stating:
  - Project objectives
  - Expected outcomes
  - Team members
  - Data handling
- Acceptable uses:
  - Radon-related research
  - Mapping to support health protection and policy initiatives
- Data released for specific request
- BCCDC to contribute/review data requesters' outputs

<http://www.bccdc.ca/about/accountability/data-access-requests>



## Where are we at now?



## What's next?



Health  
Canada



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**Donna Schmidt  
Lung Cancer  
Prevention  
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Reducing Risk of Lung Cancer  
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## References

Branion-Calles, M. C., Nelson, T. A., & Henderson, S. B. (2016). A geospatial approach to the prediction of indoor radon vulnerability in British Columbia, Canada. *J Expo Sci Environ Epidemiol*, 26(6), 554-565. doi:10.1038/jes.2015.20

Henderson, S. B., Rauch, S. A., Hystad, P., & Kosatsky, T. (2014). Differences in lung cancer mortality trends from 1986-2012 by radon risk areas in British Columbia, Canada. *Health Phys*, 106(5), 608-613. doi:10.1097/HP.0000000000000005

Rauch, S. A., & Henderson, S. B. (2013). A comparison of two methods for ecologic classification of radon exposure in British Columbia: residential observations and the radon potential map of Canada. *Canadian Journal of Public Health*, 104(3), e240-e245.

## Acknowledgements:

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Thank you for your time!

Questions, comments,  
conversations?

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