Handout A

Case study – "RadonSmart 2020"

Your public health unit has been asked to comment on and participate in implementing some aspects of the provincial RadonSmart 2020 program. Initiatives include an information campaign and easier access to test kits to increase the number of households testing for radon. The target is to have half the buildings in BC tested by 2020. Your health unit would be responsible for informing all residents in your region about the risks of radon and how to access kits. $28 million has been allocated over five years for information, administration and subsidies for test kits.

Some facts about radon in the Canadian and BC contexts:

- Radon is an invisible, odourless, naturally-occurring gas that can infiltrate homes from beneath.
- Radon exposure accounts for 16% of lung cancer deaths in Canada (Health Canada, 2012) killing an estimated 3000 Canadians per year (Canadian Cancer Society, 2014).
- 6.9% of Canadian homes (3.9% in BC) have unsafe radon levels (Health Canada, 2012).
- 96% of Canadian homes have not been tested for radon (Canadian Cancer Society, 2014).
- Risks to smokers are multiplied: for a lifelong smoker, the risk of developing lung cancer is 1/10. Adding in exposure to a high level of radon increases that risk to 1/3 (Health Canada, 2015a).
- There is no legal requirement for landlords to test their buildings (Health Canada, 2015a).
- There is no legal requirement for landlords to take any remedial action to lower radon levels in buildings that have been tested by tenants or others (Health Canada, 2015a).
- Remedial action costs on average $1500-$3000 (Health Canada, 2015a). Test kits and lab analysis are relatively inexpensive at $50-$100 (Health Canada, 2015b).
- In BC, the percentages of affected households vary widely by region. For example, very high rates are found in the Kootenays (29%), the East Kootenays (19%) and the Northern Interior (12%), while the South Fraser Valley and Richmond (0%), Vancouver Island (0.9%-1.8%) and Vancouver (1.2%) have very low rates (Health Canada, 2012).

Sources:
Health Canada. (2012). *Cross-Canada survey of radon concentrations in homes*.
Retrieved on May 11, 2015 from: http://www.hc-sc.gc.ca/ewh-semt/radiation/radon/survey-sondage-eng.php

Health Canada. (2015a). *Radon frequently asked questions*.
Retrieved on May 11, 2015 from: http://www.hc-sc.gc.ca/ewh-semt/radiation/radon/faq_fq-eng.php

Health Canada. (2015b). *How to test for radon?*
Retrieved on May 12, 2015 from: http://www.hc-sc.gc.ca/ewh-semt/radiation/radon/testing-analyse-eng.php

Canadian Cancer Society. (2014). *96% of Canadians have not tested their homes for cancer-causing radon gas, Canadian Cancer Society survey shows*. Retrieved on May 11, 2015 from: http://www.cancer.ca/en/about-us/for-media/media-releases/national/2014/radon-survey/?region=on

Using the framework outlined below, please discuss this case in small groups (+/- 30 min.). We would like one person per group to summarize the group's responses to the following questions:

A. After an ethical examination of the program, would you approve it? For what reasons?
B. Would the program have to be modified to make it ethically acceptable? Why?
C. What was most helpful in the framework you used?
D. Did the framework fail to highlight anything important?

To guide the discussion, your public health unit is using an adapted summary of the ethical framework by Bernheim et al. (2009).[1] It has three parts, and it goes as follows:

First part – Analyzing the situation: (5 min.)

- **What is the problem (public health risks/harms)?**
- **What are the public health goals?**
- **Who are the stakeholders?**
- **Are there precedents/previous initiatives/other examples that can inform our thinking about this program?**

[1] Bernheim, R. G., Nieburg, P., & Bonnie, R. J. (2009). Ethics and the practice of public health. In R. A. Goodman, R. E. Hoffman, W. Lopez, G. W. Matthews, M. Rothstein, & K. Foster (Eds.), *Law in Public Health Practice*, 2nd edition. Oxford: Oxford University Press. DOI: http://dx.doi.org/10.1093/acprof:oso/9780195301489.003.0005
For a related, earlier framework upon which this builds, see Childress, J. F., Faden, R., Gaare, R. D., Gostin, L. O., Kahn, J., ... & Nieburg, P. (2002). Public health ethics: Mapping the terrain. *Journal of Law, Medicine and Ethics, 30*, pp. 170-178. Available at: http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=7203bf70-4db2-4499-bfbd-787f4b780ba5%40sessionmgr113&vid=1&hid=115

Second part – Evaluating alternatives: (10-15 min.)

What are the best means to achieving the public health goals?

Options: RadonSmart 2020 as compared to alternatives or modifications

		RadonSmart 2020	Alternatives/modifications
Utility	How can we produce the greatest sum of net benefits (benefits minus harms)?		
Distributive justice	How can we distribute the benefits and burdens most fairly?		
Procedural justice	How can we give affected groups the best opportunity to participate in the decision-making process?		
Respect for individuals	How can we best respect individuals' autonomy, liberty and privacy?		
Respect for professional and civic values	How can we best respect: • Transparency • Honesty • Trustworthiness • Consensus-building • Promise-keeping • Protection of confidentiality • Protection of individuals and groups from stigmatization.		

Third part – Justifying the program: (10-15 min.)

Effectiveness	Is the program effective at achieving the public health goals?
Proportionality	Will the expected benefits outweigh the negative consequences (including expected harms, infringements on autonomy, confidentiality and other values)?
Necessity	Are the negative consequences necessary to achieve the public health goals?
Least infringement	Is the program the least restrictive and intrusive way to achieve the public health goals?
Public justification	Can public health actors morally justify the program to the public, and especially to those most affected, in a way that citizens could find acceptable?