

Radon Awareness

Health indicator report

Background

- The purpose of this health indicator report is to assess the awareness among adults ages 18 and older in Halton Region of radon and radon-related health risks.
- Radon is a naturally occurring radioactive gas that is released into the air during the decay of uranium in soil and rock. It can escape from the ground into homes and can accumulate to high concentrations.^{1,2}
- Radon exposure is an established cause of lung cancer. There is no known safe level of radon exposure and the risk of lung cancer increases at higher levels of exposure.^{1,3}
- Radon is colourless, odourless and tasteless, so the only way to detect it is to use equipment to measure the concentration of radon in the air.
- Radon concentrations vary across Ontario and the only way to know if a home has a high level of radon is to test. From 2009 to 2013, 25% of homes surveyed in Ontario, and 12% of homes surveyed in Halton Region had radon concentrations greater than or equal to 100 Bq/m³, the average annual radon concentration at which the World Health Organization recommends remedial action.⁴
- For more information on radon visit [Halton Region's Radon page](#).
- This Health Indicator Report uses data from the Rapid Risk Factor Surveillance System (RRFSS).

Key findings

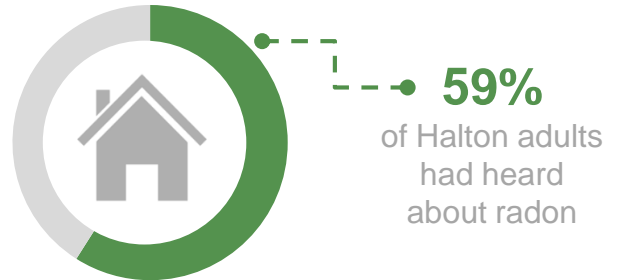
- In 2018:
 - 59% of Halton adults reported that they had heard about radon.
 - Adults aged 18-24, adults in the low income group, and adults who were non-post secondary graduates were the least likely to have heard about radon.
 - 86% of adults who had heard of radon were aware that radon is harmful to health.
 - Adults were most likely to hear about radon through television, the newspaper or word of mouth.



Radon awareness

Overview

- In 2018, 59% of adults in Halton reported that they had heard about radon.



Percentage of adults aged 18 and over who reported that they had heard about radon, Halton Region, 2018

Sex

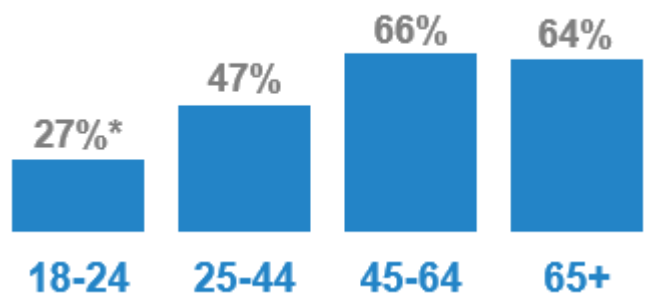
- In 2018, there was no statistically significant difference by sex in the percentage of adults who reported that they had heard of radon.



Percentage of adults aged 18 and over who reported that they had heard about radon, by sex, Halton Region, 2018

Age

- In 2018, adults aged 18-24 were less likely than adults in any other age group to have reported that they had heard about radon. Adults aged 25-44 were less likely than adults aged 44-64 or aged 65+ to be aware of radon. These differences were **statistically significant**.



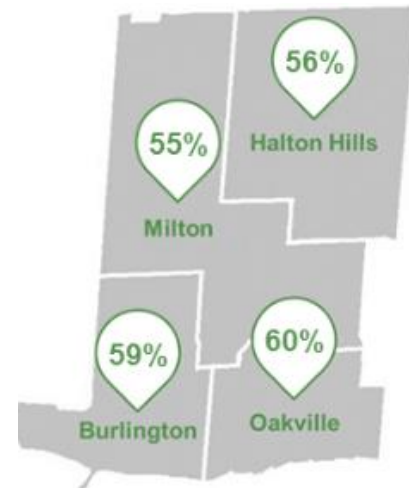
Percentage of adults aged 18 and over who reported that they had heard about radon, by age, Halton Region, 2018



Radon awareness

Municipality

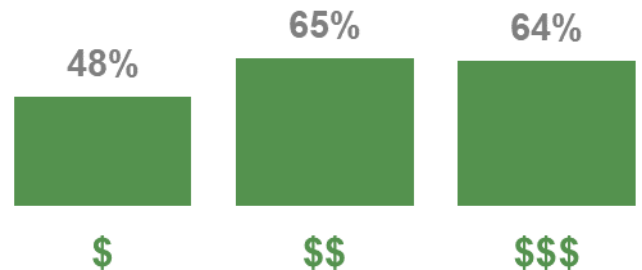
- In 2018, there were no statistically significant differences by municipality in the percentage of adults who reported that they were aware of radon.



Percentage of adults aged 18 and over who reported that they had heard about radon, by municipality, Halton Region, 2018

Income

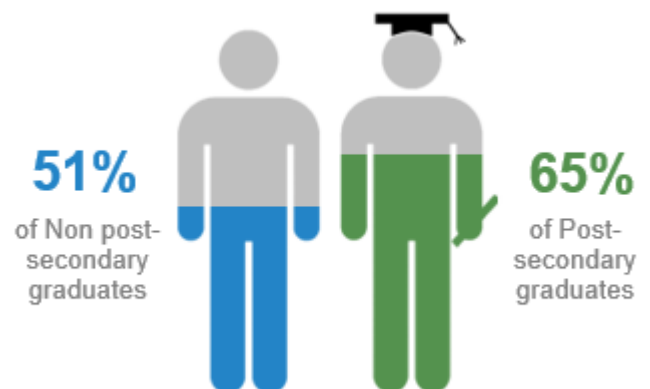
- In 2018, adults in the low income group were less likely to report that they had heard of radon than adults in the middle or high income groups. These differences were **statistically significant**.



Percentage of adults aged 18 and over who reported that they had heard about radon, by income group, Halton Region, 2018

Education

- In 2018, adults aged 25 and over who were post-secondary graduates were more likely than non-post secondary graduates to have heard of radon. This difference was **statistically significant**.



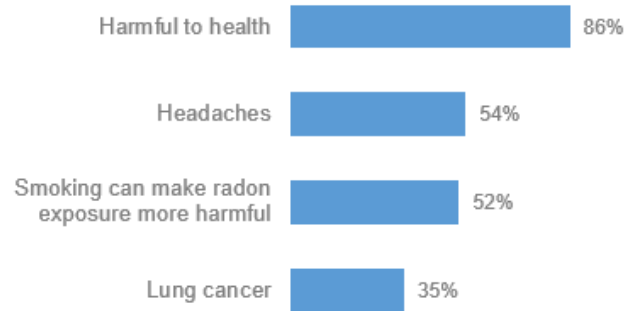
Percentage of adults aged 25 and over who reported that they had heard of radon, by education, Halton Region, 2018



Radon awareness

Awareness of health risks

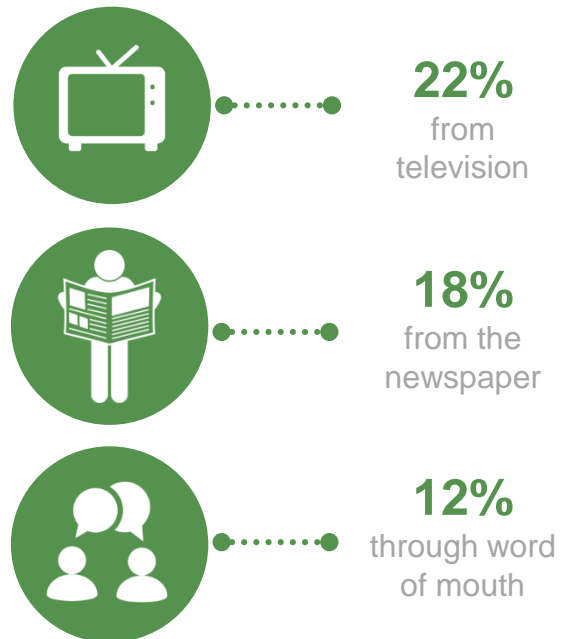
- In 2018, Halton adults who had heard of radon were aware that:
 - Radon exposure is harmful to health (86%)
 - Radon exposure can cause headaches (54%)
 - Smoking can make radon exposure more harmful to health (52%)
 - Radon exposure can cause lung cancer (35%)



Percentage of adults aged 18 and over who had heard about radon and were aware of the risks associated with radon exposure, by type of risk, Halton Region, 2018

Sources of information

- In 2018, Halton adults were most likely to hear about radon through:
 - Television (22%)
 - Newspaper (18%)
 - Word of mouth (12%)
- Other sources of information about radon included the internet, work or school, print materials, radio, passive visual media, home inspections and health professionals.



Percentage of adults aged 18 and over who had heard about radon, by source of information about radon, Halton Region, 2018

About RRFSS

- The Rapid Risk Factor Surveillance System is an on-going telephone survey (land line and cell phone) used to collect information on attitudes, behaviours, knowledge and awareness of issues related to health in Halton. RRFSS is conducted by the Institute of Social Research and York University.
- Each year, a random sample of approximately 1,200 adults aged 18 and over are surveyed in Halton Region.
- In 2016, RRFSS underwent changes in sampling and analysis methodology. **Therefore, it is not recommended to compare data from the 2016 onwards to past years of RRFSS data.**
- For more information on RRFSS methodology and limitations, see the RRFSS Data Notes and Data Interpretation Guide at halton.ca

Data notes

Definitions:

Radon is a naturally occurring radioactive gas that is released into the air during the decay of uranium in soil and rock.

Data Source: Rapid Risk Factor Surveillance System [2018], Halton Region Health Department and Institute for Social Research, York University.

References

1. International Agency for Research on Cancer. Radiation. Volume 100 D. A review of human carcinogens. Lyon, FR: World Health Organization; 2012
2. El Ghissassi F, Baan R, Straif K, Grosse Y, Secretan B, Bouvard V, et al. A review of human carcinogens -- part D: radiation. *Lancet Oncol.* 2009 Aug;10(8):751-2.
3. Krewski D, Lubin JH, Zielinski JM, Alavanja M, Catalan VS, Field RW, et al. Residential radon and risk of lung cancer: a combined analysis of 7 North American case-control studies. *Epidemiology.* 2005 Mar;16(2):137-45.
4. Cancer Care Ontario. 2016 Prevention System Quality Index: monitoring Ontario's efforts in cancer prevention. Toronto: Queen's Printer for Ontario; 2016. Accessed November 2019 from <https://www.cancercareontario.ca/sites/ccocancer/care/files/assets/PSQI2016FullReport.pdf>

For more health indicator and health status reports, visit Halton Region's Health Statistics website on halton.ca

Last updated: October 2019