

Climate Change: Air Quality Health Index

Health indicator report

Background

- The purpose of this health indicator report is to describe residents' knowledge and behaviours related to the Air Quality Health Index (AQHI).
- Ontario has 38 outdoor air monitoring stations across the province that collect real-time air pollution data. This information is communicated to the public through Ontario's Air Quality Health Index (AQHI).¹
- AQHI is meant to warn vulnerable individuals and their caregivers to take precautions.
- The results from this report will be used to inform Halton Public Health's Climate Change and Health vulnerability assessment and adaptation planning, as required in the Ontario Public Health Standards *Healthy Environments and Climate Change Guideline, 2018*.
- This health indicator report uses data from the Rapid Risk Factor Surveillance System (RRFSS).

Key findings

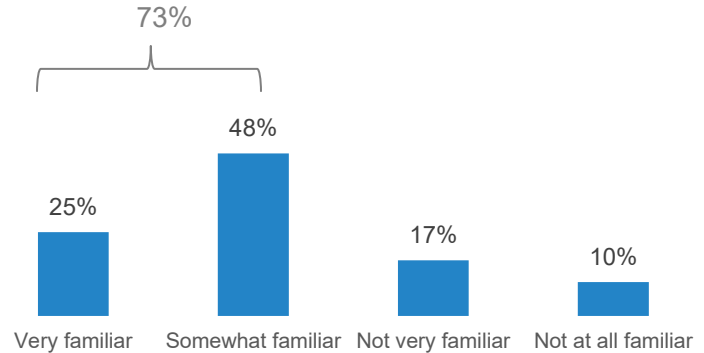
- In 2020/21, 73% of Halton adult respondents indicated that they are familiar with the AQHI
- 48% of Halton adult respondents check the AQHI every day or every week
- 76% of Halton adult respondents who are alarmed or concerned about climate change are familiar with the AQHI



Familiar with the AQHI

Overview

- In 2020/21, 73% of Halton adult respondents were very or somewhat familiar with the AQHI. Additionally, 17% were not very familiar and 10% were not at all familiar with the AQHI.



Familiarity of adults aged 18 and over with the AQHI, Halton Region, 2020/21

Sex

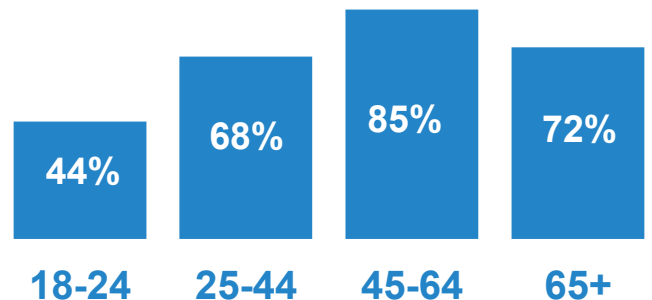
- There were no significant differences by sex in familiarity with the AQHI.



Percentage of adults aged 18 and over who are very or somewhat familiar with the AQHI, by sex, Halton Region, 2020/21

Age

- Adults aged 45-64 were more likely to be very or somewhat familiar with the AQHI compared to adults in all other age groups. These differences were **statistically significant**.



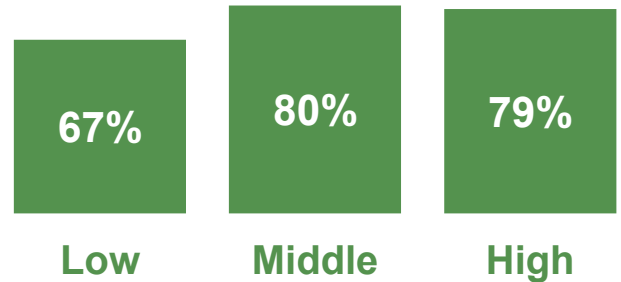
Percentage of adults aged 18 and over who are very or somewhat familiar with the AQHI, by age group, Halton Region, 2020/21



Familiar with the AQHI

Income

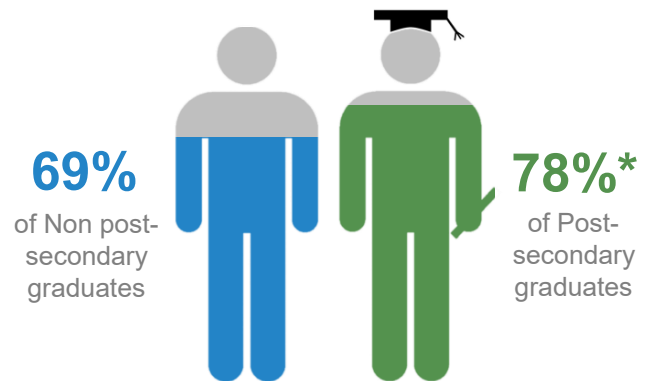
- 67% of Halton adult respondents in the low income group were very or somewhat familiar with the AQHI, compared to 80% of residents in the middle income group. However, the difference was not statistically significant.



Percentage of adults aged 18 and over who are very or somewhat familiar with the AQHI, by income, Halton Region, 2020/2021

Education

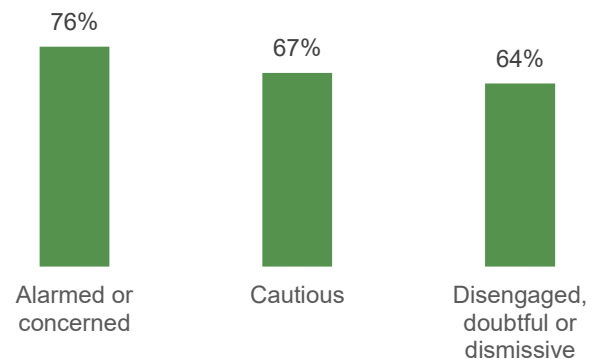
- There were no statistically significant differences by education in the percentage of Halton adult respondents who were very or somewhat familiar with the AQHI.



Percentage of adults aged 25 and over who are very or somewhat familiar with the AQHI, by education, Halton Region, 2020/21

Climate Change Beliefs

- 76% of Halton adult respondents who were categorized as alarmed or concerned about climate change were very or somewhat familiar with the AQHI, compared to 67% of residents categorized as cautious about climate change and 64% of residents categorized as disengaged, doubtful or dismissive. However, these differences were not statistically significant.



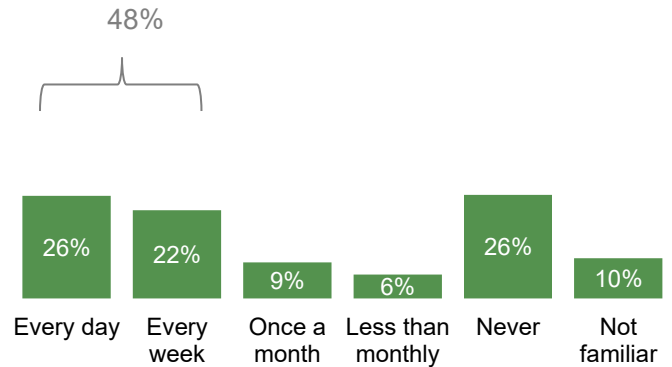
Percentage of adults aged 18 and over who are very or somewhat familiar with the AQHI, by how concerned they are about climate change, Halton Region, 2020/21



Frequency of checking the AQHI

Overview

- In 2020/21, 48% of Halton adult respondents reported checking the AQHI every day or every week. Additionally, 9%, 6%, 26% and 10% check the AQHI once a month, less than monthly, never or are not familiar with the AQHI, respectively.



Percentage of adults aged 18 and over by how often they check the AQHI, Halton Region, 2020/21

Sex

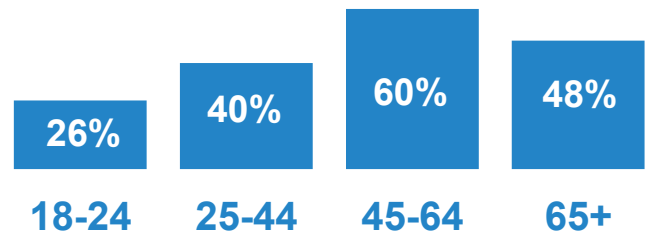
- Females were more likely than males to check the AQHI every day or every week, and this difference was **statistically significant**.



Percentage of adults aged 18 and over who check the AQHI every day or every week, by sex, Halton Region, 2020/21

Age

- Adults aged 45-64 were more likely to check the AQHI every day or every week compared to adults aged 18-24 and 25-44, and these differences were **statistically significant**.



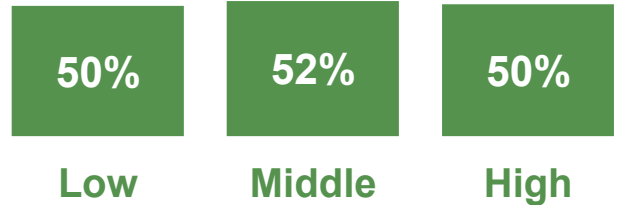
Percentage of adults aged 18 and over who check the AQHI every day or every week, by age group, Halton Region, 2020/21



Frequency of checking the AQHI

Income

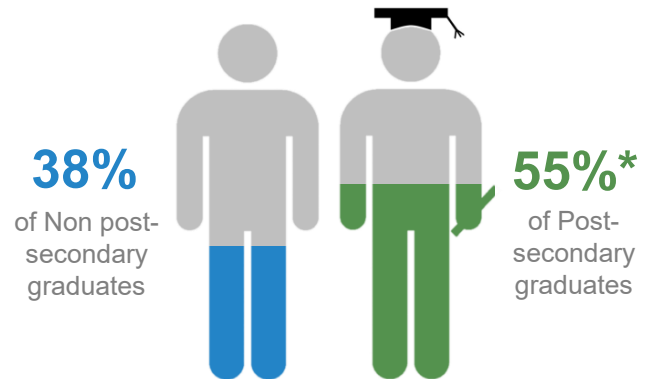
- There were no statistically significant differences by income in the percentage of Halton adult respondents who check the AQHI every day or every week.



Percentage of adults aged 18 and over who check the AQHI every day or every week, by household income, Halton Region, 2020/21

Education

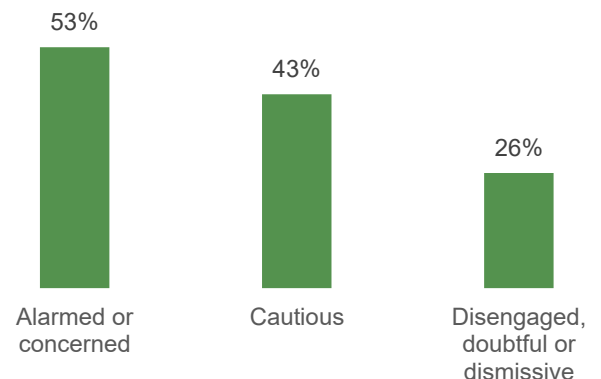
- Post-secondary graduates were more likely check the AQHI every day or every week, compared to non-post secondary graduates. This difference was **statistically significant**



Percentage of adults aged 25 and over who check the AQHI every day or every week, by education, Halton Region, 2020/21

Climate Change Beliefs

- Halton residents who were categorized as alarmed or concerned about climate change were more likely to check the AQHI every day or every week, compared to those who were disengaged, doubtful or dismissive. This difference was **statistically significant.**



Percentage of adults aged 18 and over by how often they check the AQHI by how concerned they are about climate change, Halton Region, 2020/21

About RRFSS

- The Rapid Risk Factor Surveillance System (RRFSS) 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.
- An additional 800 people were surveyed to focus on climate change attitudes, behaviours, knowledge and awareness among Halton residents aged 18 and over. Responses were collected from January to March 2020. Data collection was then paused due to the COVID-19 pandemic, and resumed from April to December 2021.
- For more information on RRFSS methodology, limitations and statistical terms see the Data Notes and Data Interpretation Guide at www.halton.ca/For-Residents/Public-Health/Health-Statistics.

Data notes

Definitions:

Familiar with the AQHI: Includes Halton residents who indicated they are very familiar or somewhat familiar with the AQHI

The **Alarmed** are convinced climate change is happening, human-caused, an urgent threat, and they strongly support climate policies. Most, however, do not know what they or others can do to solve the problem. The **Concerned** think human-caused climate change is happening, is a serious threat, and support climate policies. However, they tend to believe that climate impacts are still distant in time and space, thus climate change remains a lower priority issue. The **Cautious** haven't yet made up their minds: Is climate change happening? Is it human-caused? Is it serious? The **Disengaged** know little about climate change. They rarely or never hear about it in the media. The **Doubtful** do not think climate change is happening or they believe it is just a natural cycle. They do not think much about the issue or consider it a serious risk. The **Dismissive** believe climate change is not happening, human-caused, or a threat, and most endorse conspiracy theories (e.g., "global warming is a hoax").²

References

1. Ministry of Environment, Conservation and Parks (2023). Air Quality Ontario, Retrieved from <https://www.airqualityontario.com/>
2. Chryst, B., Marlon, J., van der Linden, S., Leiserowitz, A., Maibach, E., & Roser-Renouf, C. (2018). Global warming's "Six Americas Short Survey": Audience segmentation of climate change views using a four question instrument. *Environmental Communication*, 12(8), 1109-1122. <https://climatecommunication.yale.edu/visualizations-data/sassy/>

Data Source: Rapid Risk Factor Surveillance System [2020-21], Halton Region Public Health and Institute for Social Research, York University.

Estimates marked with an asterisk (*) should be interpreted with caution due to high variability. Estimates marked with a double asterisk (**) are not reportable.