

INFORMATION REPORT

TO: Mayor and Members Board of Health	WARD(S) AFFECTED: CITY WIDE
COMMITTEE DATE: May 24, 2011	
SUBJECT/REPORT NO: Air Quality Health Index BOH10008(a) (City Wide)	
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Council Direction: Not Applicable

Information:

In follow up to report BOH10008, this report provides information about the implementation of the Air Quality Health Index (AQHI) in Hamilton.

Air Quality Health Index (AQHI)

The AQHI is a valuable tool developed by Health Canada to understand air quality in terms of health risk and for planning daily activities accordingly. The AQHI is designed to be used by both health professionals and the general public to determine which health risks are related to a quantity of air pollution at a given time.

The AQHI is calculated based on the relative risks of a combination of common air pollutants which are known to harm human health. These pollutants include:

- Ozone (O₃) at ground level
- Fine Particulate Matter - also known as PM_{2.5} and PM₁₀. These are microscopic solid or liquid particles
- Nitrogen Dioxide (NO₂)

The AQHI communicates four primary things:

1. A number from 1 to 10+ summarizing the quality of the air. The higher the number, the greater the health risk associated with the air quality. When the amount of air pollution is very high, the number will be reported as 10+.
2. Current hourly AQHI readings and maximum forecasted values for today, tonight and tomorrow.
3. The level of health risk associated with the index reading (e.g. Low, Moderate, High, or Very High Health Risk).
4. Health messages for both the general population and “at risk” populations.

Some members of the public are more susceptible to the adverse health effects caused by air pollution. This “at risk” segment of the population includes the very young, the elderly, and those with pre-existing respiratory and cardiovascular conditions. Individuals considered to be part of the “at risk” population are encouraged to be more vigilant than the general population and to use the AQHI to help make decisions to protect their health by limiting short-term exposure to air pollution and adjusting activity levels during increased levels of air pollution.

Status of AQHI Implementation in Hamilton

In January, 2011, a meeting between Environment Canada, Health Canada and the Ontario Ministry of Environment was held to discuss the expansion of AQHI reporting in Ontario to include the City of Hamilton. Due, in part, to advocacy efforts put forth by Hamilton Public Health Services, federal and provincial partners agreed to begin reporting the AQHI for the City of Hamilton beginning in June, 2011.

On March 28, 2011, Hamilton Public Health Services, in partnership with Environment Canada, hosted the *Air Quality Health Index (AQHI) Hamilton Outreach Showcase Workshop*. The purpose of the workshop was to engage and inform key stakeholders about the AQHI and to discuss strategies related to successfully promoting the AQHI in Hamilton. The following key stakeholders were identified and were able to attend the workshop:

- Health Canada
- Environment Canada
- Ontario Ministry of the Environment
- Asthma Society of Canada
- Hamilton Wentworth Catholic District School Board
- Hamilton Wentworth District School Board
- Toronto Public Health
- Centre for Expertise and Research In Global Environmental Health
- Clean Air Champions
- Clean Air Hamilton

- McMaster University
- Ontario Lung Association
- Environment Hamilton
- Senior Advisory Committee
- Hamilton Industrial Environmental Association
- Green Venture

The AQHI promotional awareness campaign in Hamilton will begin June, 2011. The campaign will leverage partnerships with federal, provincial, and local stakeholder organizations and media, while also utilizing resources such as radio, newspapers, City of Hamilton website, City of Hamilton resident postcard mailing, and HSR bus interiors, billboards and transit shelters (see Appendix "A"). The promotional campaign for AQHI is planned to run from June to October, 2011, and will utilize existing funding resources available through the Health Hazards program budget.

The *Evaluation of the National Air Quality Health Index Program Report* (February, 2010) found that the AQHI appears to be a relevant federal program that addresses legitimate need for consistent air quality information and is considered a relevant federal government program by key external stakeholders. Therefore, the main purpose of the promotional campaign is to inform City of Hamilton residents about the AQHI and the fact that they are able to access daily AQHI reporting and plan outdoor activities accordingly.

The promotional campaign material will direct the public to the City of Hamilton's website where daily AQHI levels can be accessed. The website activity, in terms of how often it is accessed by the public, will also provide information to Public Health Services with respect to how well the promotional campaign is perceived; in other words, the number of website visits will reflect the number of people accessing AQHI information. This information can be used to measure the number of people being informed about the AQHI over time.

Next Steps

According to federal partners, there will be a national performance measurement working group established in the near future. It will oversee the management of data relating to the program and make recommendations to Health Canada, Environment Canada and partners on areas such as program performance indicators and measures, data collection, analysis and future evaluations. Staff will report back to the Board of Health on evaluation findings of AQHI implementation in Hamilton once they become available.