



INFORMATION REPORT

TO:	Mayor and Members Board of Health
COMMITTEE DATE:	August 11, 2016
SUBJECT/REPORT NO:	Stock Epi in Food Outlet BOH13040(b) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Dr. Ninh Tran (905) 546-2424 Ext. 7113
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SIGNATURE:	

Council Direction:

On October 21, 2013, the Board of Health directed Hamilton Public Health Services (PHS) to "...work with Dr. Waserman at McMaster University and Anaphylaxis Canada to develop an epinephrine auto-injectors (EAls) in food outlets pilot program by March 31, 2014 at either a Hamilton mall, or nationally recognized food outlet chain".

On April 22, 2014, the Board of Health provided further direction, specifying roles and responsibilities as well as funding amounts and sources:

1. Epinephrine Auto Injector Pilot Project Update (BOH13040(a)) (City Wide) (Item 8.3) (Ferguson/Whitehead)

(a) That the development, implementation, research and evaluation of the Stock Epinephrine Auto Injector Pilot Project be overseen by the City of Hamilton, through Public Health Services;

(b) That as an exception to the Corporate Purchasing Policy, that Public Health Services be given the authority to negotiate, through Memorandum of Understandings as acceptable to the City Solicitor, the undertaking of components of the Epinephrine Auto Injector Pilot Project with McMaster University, Anaphylaxis Canada, or other agents as identified, including but not limited to related research, evaluation, training, and project management related to the Epinephrine project and with shopping mall operators, food outlet businesses and other related agencies as locations for the carrying out of the

Epinephrine Pilot Project; and if acceptable agreements cannot be reached, Hamilton Public Health Services itself will conduct the necessary work or report back; and,

(c) That staff be directed to use up to \$82,000 from the Tax Stabilization Reserve Number 11046 to fund the components necessary to complete the Stock Epinephrine Auto Injector Pilot Project.

This information report will describe the pilot that was conducted, the results of the evaluation of the pilot (including cost estimates) and provide options and considerations for continuing or expanding the pilot. Information contained here was provided by McMaster University and Food Allergy Canada.

Information:

Description of the Pilot:

From September 2014 until March 2016 a pilot study at Jackson Square was conducted to make EAls available in the event of an anaphylactic reaction. This included two stand-alone sites; Tim Hortons (a fast food outlet) and The Anchor Bar (a sit-down restaurant), as well as the mall itself through the Security Office. Each of the three sites was provided site-specific anaphylaxis emergency training, updating of relevant policies and procedures and train-the-trainer workshops with enduring educational materials. Food Allergy Canada (formerly known as Anaphylaxis Canada) provided the training workshops. EAls were available for administration by security guards with back-ups located in three security desks within Jackson Square Mall. EAls were also available to restaurant trained staff accessing through secure first-aid emergency kits located in office within the restaurant (Tim Hortons, The Anchor Bar). Four EAI devices (two adult and two pediatric) were available at each site.

Evaluation of the Pilot:

The pilot was evaluated for implementation feasibility including the program's acceptability and adoption by food service, mall administration and security personnel; and the appropriateness, costs, fidelity, reach, and sustainability using a mixed methods approach. Surveys were used to assess acceptability. A total of 1,580 members of Food Allergy Canada completed a national online survey in February 2015, and 120 individuals completed an in-person survey at the Jackson Square Mall. Surveys and key informant interviews with stakeholders assessed acceptability to staff implementing the program, as well as the organizations/sites implementing the pilot. Overall, food allergic individuals, food service staff and the general public were very accepting of the pilot stock epinephrine program, with members of the public feeling more comfortable dining out. Hamilton respondents were significantly more comfortable dining out knowing that an EAI was on premises versus all respondents (65.5% vs. 43%; $P = 0.03$). Hamilton respondents were also more comfortable dining out knowing that staff

can recognize and treat an allergic reaction versus all other respondents (62.5% vs. 43%; $P = 0.06$).

Usage of Epinephrine:

Every two weeks, follow-up surveys were used to gather information about epinephrine use. During the 16-month pilot, the stock EAI was not used, though there was an incident requiring use of a client's own device.

Table 1: Program Tracking of Epinephrine Use

Description	Security Guards	Restaurant staff
Number of customer questions about food allergies	0	8
Number of times the EAI was taken out of carrier*	4	0
Number of times EAI was used	0	0
Number of times a critical incident was filed**	1	0

*All of these were due to shift changes and/or demonstrations

**Client administered their own EAI

Feasibility and Cost-Analysis

Evaluation of feasibility included both surveys and key informant interviews regarding sustainability, as well as estimates of costs using a cost-analysis with assumptions and unit cost variables.

Assumptions for Specific Components Included:

- Train the trainer program: two-hour workshops per staff member on a one-time basis in a train the trainer program.
- Updating procedures: four hours for each new site.
- Current employees: half-an-hour training per current employee per year.
- New hire: ten minute training during orientation per new hire.
- Trainers to deliver educational session for current employee and new hires: half-an-hour for current employees and ten minute for new hires.
- Handover of EAI device between shifts (for security guards only).

Unit Cost Variables Included:

- Estimated hourly wage for security guards (based on Canadian average), fast food restaurant employees (based on Ontario general minimum wage) and sit-down restaurant wait-staff (based on liquor server minimum wage).
- Cost of EAIs: \$500 for four devices for 18 months (an annual pro-rated cost of \$335 per year).

- Train-the-trainer materials: \$20 per participant.

Cost-Estimate Results:

Program costs include missed work time for receiving and giving EAI training and the cost of the EAI itself. Based on the above assumptions and unit costs, the expected cost of implementation is as follows:

Table 2: Estimate of Costs

	First year	Subsequent years
Mall (26 staff)	\$2,155	\$1,489
Fast-food outlet (61 staff)	\$987	\$388
Sit-down restaurant (36 staff)	\$715	\$354
Total	\$3,856	\$2,231

These costs would be lower or higher depending on the actual number of employees and actual staff turnover rates in other food outlets compared to the ones used in the pilot.

Should Council want to pursue continuing and/or expanding the pilot, further work and a separate report would be required to report back on the specific costs, feasibility and legal implications.

For example, considerations would include the following:

Scope and model:

The cost analysis provided in the pilot study is based on a specific scope and model. The model used included a train-the-trainer program with face-to-face workshops, four EAls (two of the four were back-up auto-injectors) for each site and access to epinephrine by trained staff.

Funding of the program:

Program costs include both the EAls, as well as training costs (materials, time of trainers, and missed work time for staff receiving the EAI training).

The options for funding sources include:

- 1) 100% funded by food outlet/establishment.
- 2) 100% funded by City of Hamilton.
- 3) Cost shared between City of Hamilton and the food establishment.

Should Council choose to partially or fully fund continuation and/or expansion of the pilot, it should also consider:

- a) Whether it would require conditions (e.g. acceptable training to receive funding for the EAI's).
- b) Financial limits (e.g. only funding a portion of the 1900 medium to high-risk food establishments)
- c) User fees/cost-recovery if a bylaw were pursued as outlined below
- d) Whether the program is voluntary or mandatory (i.e. a by-law). Considerations for a by-law would need to include:
 - i) Scope (epinephrine injector, training)
 - ii) Standards (epinephrine injectors, training) and enforcement mechanism (department, frequency, funding/cost-recovery)

Both of these would affect the resources required to implement.

- e) Which department(s) and service(s) would provide support to the program (e.g. PHS, EMS, By-law)

If Council decides to investigate these options further, the timelines for a follow-up report from staff would depend upon the option being explored.