

Clause 15 in Report No. 13 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on September 24, 2015.

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Electronic Cigarettes Update

Committee of the Whole recommends adoption of the following recommendation contained in the report dated August 14, 2015 from the Medical Officer of Health and the Commissioner of Community and Health Services:

1. Recommendation

It is recommended that:

1. The Regional Clerk circulate this report to the Clerks of the local municipalities.

2. Purpose

This report provides an update on electronic cigarettes and Regional implications of the *Making Healthier Choices Act, 2015*, including potential public health responses and activities. Schedule 3 of this Act focuses on regulating e-cigarettes.

This report is prepared for Council in order for it to carry out its legislative duties as a Board of Health under the *Health Protection and Promotion Act*.

3. Background

Electronic cigarettes are an emerging form of technology

Invented in China in 2003, electronic cigarettes, or e-cigarettes as they are commonly known, entered the American and European markets in 2006. This global market is now estimated to be worth upwards of \$2 billion. This growth is especially clear in the United States where it has grown from \$80 million in 2010 to over \$1.4 billion in 2014. Not only is the market growing at a rapid pace, but all

major American tobacco companies have now publicly announced their entry into the e-cigarette market.

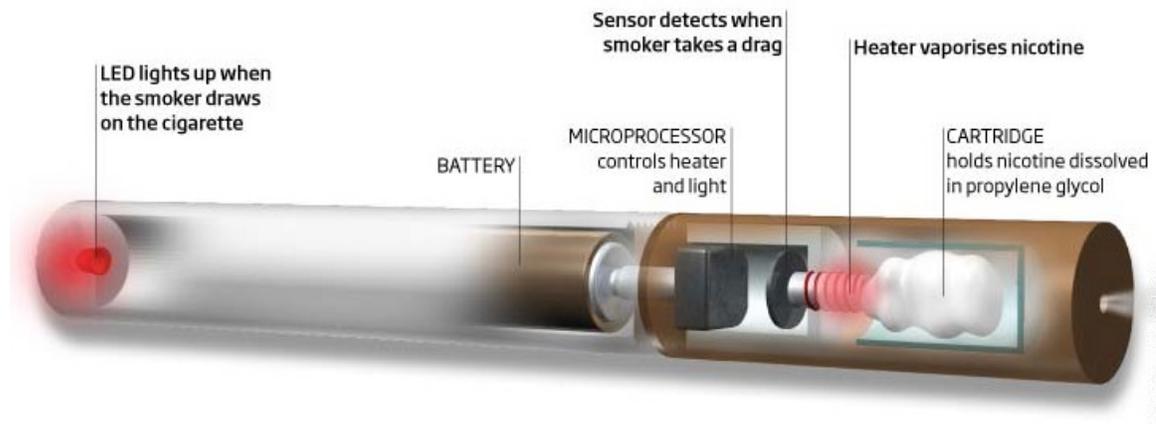
E-cigarettes are common sights in retail stores, mall kiosks and online. In York Region, e-cigarettes first appeared in early 2009. Since that time, it is estimated that more than two-thirds (i.e. over 400) of York Region tobacco vendors sell e-cigarette products. There are also a growing number of businesses that sell various e-cigarette components and solutions exclusively. Vaping lounges have also opened within York Region.

Unlike typical cigarettes, e-cigarettes produce no smoke

E-cigarettes are devices about the size and appearance of regular cigarettes that can deliver nicotine in an aerosol or vapour form. The devices are made up of a battery, a heating element (also called an atomizer or vapourizer) and a solution-containing cartridge or tank that is either prefilled or refillable. Puffing on the device, like a typical cigarette, triggers the heater to heat the solution which produces a vapour that is inhaled by the user. This solution is typically made up of propylene glycol or glycerin as well as flavouring agents. The solutions may or may not contain nicotine. Those that contain nicotine can have anywhere from zero milligrams of nicotine to 18 milligrams of nicotine, which is the approximate equivalent of smoking an entire pack of cigarettes. The actual amount of nicotine inhaled would vary depending on the individual users of e-cigarettes.

Refilling e-cigarette cartridges can pose a health threat as it can require handling toxic levels of liquid nicotine. Some refill bottles contain over 1,000 milligrams of nicotine. A fatal dose of nicotine for adults is 30 to 60 milligrams (i.e. a tablespoon) and for children is 10 milligrams (i.e. half a teaspoon). Currently, there are no regulations on age, nicotine amounts or childproofing for these refill bottles.

E-cigarettes share many of the same physical and behavioural similarities as tobacco cigarettes. They look like cigarettes and are handled and used in the same way. A key difference is that e-cigarettes do not contain tobacco and no combustion takes place. As a result, when e-cigarettes are smoked or “vaped” they emit vapour but no smoke. The image below shows the various parts of a typical e-cigarette (Polosa, Rodu, Caponnetto, Maglia & Raciti, 2013).



E-cigarettes straddle the line between health risks and benefits

There are three branches of arguments related to the use of e-cigarettes as summarized in Table 1.

Table 1
The good, bad and unknown: Recent evidence related to e-cigarettes

Argument	The evidence
The good	<p>Reduced exposure to the numerous carcinogens and toxins found in cigarette smoke (Alwood, 2013)</p> <p>An e-cigarette can replace a conventional cigarette in satisfying the chemical and behavioural aspects of smoking</p>
The bad	<p>Two randomized control trials of e-cigarettes: participants who used nicotine-containing e-cigarettes were more likely to abstain, but six-months later there were no differences in abstinence rates (Alwood, 2013)</p> <p>Most people using e-cigarettes also continue to smoke conventional cigarettes (Regan et al., 2013)</p> <p>Adverse effects after smoking a single e-cigarette, including cough, sore throat, eye irritation and increased airway resistance and heart rates have indicated potential upper airway harm (Gennimata et al., 2012)</p> <p>E-cigarettes are a source of secondhand exposure to nicotine (Czogala et al., 2014)</p> <p>Use negatively impacts successes achieved by smoke-free legislation (e.g., acceptability of smoking) (Britton, 2013)</p> <p>Increasing proportions of youth are trying e-cigarettes and companies appeal to youth purchasers with celebrity endorsements, trendy imagery and flavoured e-cigarette solutions (Britton, 2013)</p>

Argument	The evidence
The unknown	<p>Lack of long-term studies on the safety and efficacy of e-cigarettes, including unknown chemical compositions</p> <p>Potentially toxic components have been found including: tobacco-specific nitrosamines, diethylene glycol, silver, iron, aluminum, silicate, tin, chromium and nickel (Adkins, 2014)</p> <p>Analysis of the vapours from e-cigarettes have found formaldehyde releasing agents, the effects of which are unknown but may pose a risk, given formaldehydes link as a carcinogen (Jensen, 2015)</p>

As seen in Table 1 above, there is a variety of evidence that is supportive for or against the use of e-cigarettes. There is also a lack of evidence on the safety, efficacy and quality standards related to e-cigarettes.

4. Analysis and Options

Few Canadian jurisdictions have regulated e-cigarettes

Health Canada states that electronic smoking devices and their cartridges are only authorized for sale in Canada if they do not make a health claim and they do not contain nicotine. These products require market authorization before they can be imported, advertised and sold in Canada. The sale of these products generally is currently not compliant with the *Food and Drugs Act* since no electronic smoking products have been granted a market authorization in Canada. Despite these requirements, these products are readily available across Canada and Health Canada has remained relatively silent on the issue.

From a local bylaw perspective, there are 12 jurisdictions from across Canada that have implemented prohibitions related to e-cigarettes. Four of these jurisdictions are located in Ontario and include: Essex, Tecumseh, Ottawa and Innisfil.

The Essex and Tecumseh restrictions mirror one another with only one distinction. Essex prohibits the use of e-cigarettes on all municipal property whereas Tecumseh prohibits e-cigarettes outdoors only. Both bylaws were adopted in 2014 and came into effect January 1, 2015.

Innisfil's bylaw was adopted in 2013 and came into effect January 1, 2014. The bylaw has a very broad definition of smoking that includes all tobacco products and e-cigarettes and includes a nine-metre smoking prohibition from outdoor spaces such as sporting and spectator areas, public beaches, waterfront trails and playgrounds.

Ottawa's smoking bylaw came into force in 2004 and was amended in 2012 to include e-cigarettes. Under the bylaw, smoking is prohibited on all city properties, both inside and outside, including at outdoor events, beaches and trails.

In addition to these local regulations, several provinces have started to develop policies for the sale, marketing and use of both nicotine- and non-nicotine-containing e-cigarettes. As of May 2015, Nova Scotia prohibited sales of e-cigarettes to people under 19 years of age and also restricted promotion and sales of e-cigarettes.

Provincial legislation has been approved to regulate e-cigarettes

On May 28, 2015, Bill 45, the *Making Healthier Choices Act, 2015*, received Royal Assent and is currently awaiting proclamation later this year. This legislation has three schedules, one of which is focused on e-cigarettes.

Schedule 3, the *Electronic Cigarettes Act, 2015*, once in effect, will regulate the sale, promotion and use of e-cigarettes in Ontario. It will make it more difficult for youth to obtain e-cigarette products, prohibit the use of e-cigarettes in areas where smoking tobacco is prohibited and limit the marketing and promotion of e-cigarettes to youth. The regulations would apply to all devices and/or their components regardless of whether or not the vapour produced contains nicotine.

Regulatory restrictions within the *Smoke-Free Ontario Act*, aimed at protecting Ontarians, will be mirrored for e-cigarettes as they relate to the sale, supply, age restrictions, signage, flavouring, packaging and prohibiting use in all public places, work places, patios, sport fields and playgrounds.

Implementation of the *Electronic Cigarettes Act, 2015* is expected to follow the timelines below:

- Summer 2015: Post the first regulation to Regulation Registry for minimum of 45 days
- Fall 2015: Finalize Regulation and requirements to be publicly communicated to stakeholders
- January 1, 2016: Ban on the sale of e-cigarettes to minors and signage requirements come into effect as well as regulations to support the ban on using e-cigarettes in prohibited places
- Spring 2016: Consult with stakeholders regarding additional regulatory measures (e.g., display, promotion, marketing etc.)
- January 1, 2017: Additional Regulations come into effect

Based on stakeholder feedback, the province will regulate e-cigarettes in the same manner as traditional tobacco cigarettes starting January 1, 2016

On January 1, 2016, the sale of e-cigarettes will be prohibited to minors and additional signage requirements will come into effect. In addition, e-cigarette use will be regulated in the same manner as traditional tobacco cigarettes. In a draft Regulation under the *Electronic Cigarettes Act, 2015*, e-cigarette use would be restricted in the same places where tobacco cigarettes are restricted, including, but not limited to: workplaces, public places, restaurant and bar patios, children's playgrounds, sporting areas and public and private hospitals.

On January 1, 2017, additional regulations will come into effect that address the display, marketing and promotion of e-cigarettes in retail establishments.

The Region will play an important enforcement role in the implementation of the *Electronic Cigarettes Act, 2015*

Tobacco Control Officers within York Region Public Health will be responsible for implementation and ensuring compliance with the *Electronic Cigarettes Act, 2015* on January 1, 2016. Currently, the Ministry of Health and Long-Term Care is in the process of drafting regulations and training tools for Public Health Units. In response, the Health Protection Division of York Region Public Health is anticipating a need to regularly inspect businesses who sell e-cigarettes once per year. It is also anticipated that youth test shopping for e-cigarettes will also be required. Approximately 400 tobacco vendors currently offer some form of e-cigarette for sale and other retailers not classified as tobacco vendors are also offering e-cigarettes for sale.

Tobacco Control Officers will also be responsible for ensuring that e-cigarettes are not being used anywhere that already prohibits cigarette smoking. Much like with the enforcement of the *Smoke Free Ontario Act*, all complaints will be responded to in a timely fashion.

To help increase residents awareness of the legislation and its corresponding regulations, the Ministry of Health and Long-Term Care is expected to roll out a province-wide communications campaign by winter 2015. It is also expected that Public Health Units will be provided with training, signage, fact sheets and resource materials that support the implementation of local awareness campaigns.

Similar to the *Smoke-Free Ontario Act*, compliance with the *Electronic Cigarettes Act, 2015* will likely be accomplished via education, inspections and warnings. Enforcement activities would be initiated in situations that demonstrate ongoing non-compliance.

At the time of this report, it is expected that the Ministry of Health and Long-Term Care will also provide Public Health Units with resources including funding to support implementation of the *Electronic Cigarettes Act, 2015*. Details of these additional supports have not been provided.

Implementing a York Region-specific bylaw would duplicate other provincial legislation

E-cigarettes have not been approved for use by any level of government in Canada. In addition, these products have not been approved by any pharmaceutical company as a cessation device. There is also a lack of scientific evidence on the safety, effectiveness and quality control of these technological products.

While Section 11(2) of the *Municipal Act, 2001* permits an upper-tier municipality to pass bylaws related to the health, safety and well-being of persons, implementing a Region-specific bylaw regulating e-cigarettes would be a duplication of provincial efforts as outlined in the *Electronic Cigarettes Act, 2015*. Given the provincial direction and movement to regulate e-cigarettes, York Region Public Health is supportive of these broader provincial directions as they will have noticeable and measurable impacts at both the provincial and local levels.

Link to key Council-approved plans

Activities that support York Region residents maintaining a smoke-free lifestyle support the Community Health and Well-Being priority area of the 2015 to 2019 Strategic Plan. It also aligns with an action of Vision 2051 to foster the health and well-being of the population through the promotional and protection of health and the prevention of illness.

5. Financial Implications

With increased powers of enforcement coming in place in January 2016, there is a potential for additional program operating costs to be incurred with additional responsibilities downloaded to Tobacco Control Officers. It is anticipated that with the implementation of the *Electronic Cigarettes Act, 2015* that there will be additional funding and resources provided to public health units to offset these costs, however, the extent of these additional resources are unknown.

In the event there is no additional funding provided, additional activities required to enforce the legislation will be done within the approved annual tax levy supported operating budget for public health.

6. Local Municipal Impact

There is no direct impact from these recommendations on local municipalities at the moment. Once implemented, the legislative impacts will be promoted at the provincial level likely with opportunities to cater messaging to local needs and realities in an effort to raise awareness across all nine municipalities.

In addition, ongoing engagement with Council will take place at key milestones as the legislation is implemented. These will take place in 2016 and 2017 as the legislation is fully rolled out.

7. Conclusion

Despite the surge in popularity and market share, e-cigarettes are still an unknown in the health sector. Claims regarding their effectiveness as a cessation tool are overshadowed by a lack of consistent credible evidence. Additional work is needed to fully understand the impact these devices can have on smoking habits locally, nationally and globally.

The *Electronic Cigarettes Act, 2015* will limit the access, sale, promotion and use of these devices across Ontario, including by youth. The Region is supportive of ongoing efforts to denormalize smoking and smoking behaviours and move forward with activities pledged by the province.

For more information on this report, please contact Joe La Marca, Director, Health Protection at ext. 74025 or Vito Chiefari, Manager, Health Protection at ext. 74826.

The Senior Management Group has reviewed this report.

August 14, 2015

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Accessible formats or communication supports are available upon request