E-cigarettes in Toronto

Date: August 1, 2014
To: Board of Health
From: Medical Officer of Health
Wards: All
Reference Number:

SUMMARY

Electronic cigarettes (e-cigarettes) are battery operated devices that mimic the use and sometimes the appearance and taste of conventional cigarettes. They do not contain tobacco and produce vapour instead of smoke when used. In the few years since their appearance, use has proliferated in North America, including Toronto.

Toronto Public Health (TPH) reviewed available evidence on e-cigarette use, safety, health effects, and potential as a cessation aid; as well as actions in other jurisdictions and regulatory gaps at the federal, provincial and municipal levels. Based on this review, a number of concerns have been identified about e-cigarette safety, impact on youth smoking initiation, and potential to normalize smoking behaviour and undermine existing tobacco control legislation. A number of Canadian and international jurisdictions have proposed or taken action to address these concerns. As a result, TPH has developed a position statement on e-cigarettes and health outlining current concerns and summarizing appropriate regulatory and policy approaches to address them.

This report recommends that the Minister of Health and Long-Term Care amend the Smoke-Free Ontario Act (SFOA) to include e-cigarettes, such that the Act would prohibit e-cigarette use wherever cigarette use is currently prohibited in Ontario; and prohibit the sale of e-cigarettes to minors (under 19 years of age). If provincial action is not taken by February 2015, the Medical Officer of Health will consult with the City Solicitor, other City Divisions and relevant stakeholders and report to the Board of Health on municipal measures to prohibit e-cigarette use where smoking is prohibited under the SFOA or City by-laws. In the interim, the Medical Officer of Health will work with the City Manager to explore development of an internal policy prohibiting e-cigarette use at City workplaces. This report also recommends SFOA amendments to address youth friendly e-cigarette flavours and amendments to federal legislation to ensure labelling and manufacturing consistency of e-cigarettes.
RECOMMENDATIONS

The Medical Officer of Health recommends that:

1. The Board of Health endorse Toronto Public Health’s public Position Statement on Electronic Cigarettes (see Attachment 1);

2. The Ontario Minister of Health and Long-Term Care amend the Smoke-Free Ontario Act and Regulations to:
   a. prohibit e-cigarette use wherever smoking is prohibited;
   b. prohibit sales of flavoured e-cigarette products; and
   c. prohibit e-cigarette displays in retail stores and restrict sales of e-cigarettes to minors.

3. If the provincial government has not acted to regulate e-cigarettes within six months, the Medical Officer of Health report in consultation with the City Solicitor and other municipal officials as appropriate, on municipal regulation to prohibit e-cigarette use in Toronto wherever smoking is currently prohibited under local or provincial legislation;

4. The Medical Officer of Health work in the interim with the City Manager to explore development of an administrative policy prohibiting e-cigarette use in the workplace;

5. The Federal Minister of Health amend federal legislation to:
   a. regulate all e-cigarettes, cartridges and liquids to ensure manufacturing consistency and accurate labelling;
   b. regulate the maximum quantity/dosage of nicotine in e-cigarettes;
   c. require that e-cigarette liquids are sold in child-proof bottles; and
   d. restrict e-cigarette marketing, advertising and promotion, consistent with existing tobacco legislation;

6. Health Canada
   a. enforce current prohibitions on e-cigarettes making a health claim without appropriate assessment, evaluation and market authorization; and
   b. monitor research on adverse health effects of e-cigarette use and second-hand exposure;

7. This report be forwarded to the four Toronto School Boards, Toronto's Universities and Colleges and Toronto Hospitals to encourage them to adopt policies prohibiting e-cigarette use on all indoor/outdoor property;

8. This report be forwarded to the Ontario Restaurant Hotel and Motel Association and Toronto Association of Business Improvement Areas to encourage them to encourage their members to develop in-house policies to address e-cigarette use on their property;
9. This report be forwarded for information to the Parks & Environment Committee; and

10. This report be forwarded for information to the Executive Director, Municipal Licensing & Standards Division; General Manager, Parks, Forestry and Recreation Division; Minister of Health and Long Term Care; Ontario Chief Medical Officer of Health; and Public Health Ontario.

Financial Impact
There are no direct financial impacts arising from this report beyond what has already been approved in the current year’s budget.

DECISION HISTORY
On October 23, 2013, the Parks and Environment Committee considered a report by the General Manager, Parks, Forestry and Recreation and the Medical Officer of Health titled Proposed Amendment to Municipal Code, Chapter 608, Parks, to Prohibit Smoking around Playgrounds and Other Areas in City of Toronto Parks. The Parks and Environment Committee requested the Medical Officer of Health to report to the Committee and to the Board of Health on the potential impact of "electronic cigarettes" in the public domain, along with a suggested regulatory framework (http://app.toronto.ca/tmmis/viewPublishedReport.do?function=getDecisionDocumentReport&meetingId=6904).

ISSUE BACKGROUND
An electronic cigarette (e-cigarette) is a battery operated device that mimics the use and sometimes appearance and taste of a conventional cigarette but does not contain tobacco. When inhaled, an atomizer heats a cartridge which contains a liquid solution (also called the 'e-liquid') of water, flavouring and sometimes nicotine, in a base of propylene glycol and vegetable glycerine. This usually produces a vapour (or aerosol) that resembles cigarette smoke. The act of using an e-cigarette is often referred to as 'vaping'. E-cigarettes may or may not contain nicotine. E-cigarettes with nicotine are also known as electronic nicotine delivery systems (ENDS) or electronic smoking products. First developed in their current form in China in 2004, e-cigarettes entered the North American market in 2007. Their use and availability has proliferated across the world, including in Toronto, and a number of traditional cigarette manufacturers now sell e-cigarettes.

In Canada, e-cigarettes that contain nicotine or that make a health claim (for example, that they can help people quit smoking) are regulated under the Food and Drugs Act and accordingly, require market authorization by Health Canada prior to being imported, advertised or sold in Canada. No such e-cigarettes have market authorization. Nevertheless, e-cigarettes with nicotine continue to be easy to obtain in Canada, whether through certain retailers or online. E-cigarettes that do not contain nicotine and do not make a health claim can be imported, advertised or sold in Canada without restrictions.
E-cigarettes are not subject to the packaging, labelling, advertising, promotion and sponsorship restrictions that apply to traditional cigarettes and other tobacco products. It appears that e-cigarettes are increasingly being marketed to youth and young adults through product flavouring, celebrity endorsements, event sponsorship and free product offers. E-cigarettes are also not subject to the 2006 Smoke-Free Ontario Act (SFOA) which prohibits smoking in public places and workplaces, on school and child care property and near the entrances to health care facilities, and prohibits tobacco sales to minors. They are also not subject to restrictions under Toronto by-laws that prohibit smoking near public building entrances, on City playgrounds, sports fields and at other park amenities and on public squares.

Many people are interested in using e-cigarettes to help them quit smoking or reduce their cigarette consumption, although their efficacy as a cessation aid has not been proven. Concern exists that e-cigarette promotion and use in places where smoking is prohibited could undermine tobacco control legislation and quit attempts and serve as a gateway to nicotine addiction or smoking initiation among youth. Furthermore, emerging evidence raises concerns about e-cigarette safety for users and those exposed to second-hand vapour.

COMMENTS
In order to inform its development of policy recommendations on e-cigarettes, Toronto Public Health (TPH) conducted a review of the following:

- available scientific evidence (including three recent systematic reviews) on health and safety concerns associated with e-cigarette use and second-hand exposure to the vapour they produce;
- data on youth use of e-cigarettes and their potential to act as a gateway to tobacco use;
- existing regulations that apply to e-cigarettes and regulatory gaps;
- actions taken by other jurisdictions; and
- available scientific evidence on the potential of e-cigarettes to help people quit smoking.

The following sections summarize the findings of this review and recommendations to address them.

E-cigarettes – Health and Safety Concerns
In a 2010-2011 survey, 64% of Canadians who were aware of e-cigarettes perceived them to be less harmful than traditional cigarettes. Although a relatively new field of study, a growing body of scientific evidence indicates that e-cigarettes could pose health risks to users and those exposed to the vapour. E-cigarette parts, liquid and vapour may include variable levels of cancer-causing chemicals and harmful ingredients. These include several types of tobacco-specific nitrosamines, carbonyl compounds (e.g. aldehyde, acetaldehyde, acrolein), and volatile organic compounds. Although these chemicals exist in significantly lower levels in e-cigarettes than in conventional cigarettes, the long-term health effects of using e-cigarettes remain unknown.
Studie8 have also detected ultra fine particles containing heavy metals (e.g. nickel and chromium) in e-cigarette vapour that possibly originate from e-cigarette heating elements. These particles have been found in levels similar to those found in conventional cigarette smoke.5-7 Because of their very small size, these metal particles can be deposited deep in the lungs, which can increase the risk of respiratory disease. Their size also means they can cross into the blood stream and be deposited and absorbed into body tissues. Propylene glycol, a main base ingredient in e-liquids, is also a known irritant, and when heated and vaporized can form formaldehyde, a cancer-causing compound.7,8 A recent published study has also found that the availability of propylene glycol and higher battery output voltage (leading to higher temperatures) in e-cigarettes are associated with substantial increases in levels of formaldehyde and acetaldehyde in the vapour.9

Short-term studies have also identified several negative health outcomes associated with the active inhalation of e-cigarette aerosol. These include airway, mouth and throat irritation, decreased lung function, allergic reactions and potential respiratory inflammation.5,7 Improper use of e-cigarettes and ingestion of e-liquids have also accounted for cases of nicotine poisoning and other injuries, especially among children.

The Centers for Disease Control and Prevention has recently reported a dramatic increase in e-cigarette-related calls to poison centres across the United States (US) (from 1 call per month in September 2010 to 215 calls per month in February 2014). Most cases of poisoning were caused by ingestion or inhalation of nicotine containing e-cigarette liquids and vapours, and through skin or eye exposure. More than half of these calls (51%) involved children under 5 years old.10 Cases of nicotine poisoning among users due to overuse of e-cigarettes (since e-cigarettes do not extinguish naturally like cigarettes) have also been reported by the German Federal Institute for Risk Assessment.6 Moreover, e-cigarettes have been linked to cases of fires and explosions.7 Due to these health risks and concerns Health Canada issued an advisory to Canadians in 2009 to avoid using e-cigarettes and related products until their quality and safety are proven.11

Exposure to second-hand (exhaled) vapour may also pose health risks. While second-hand vapour does not appear to increase carbon monoxide (CO) and carbon dioxide (CO2) levels in indoor air, it has been found to contain harmful and cancer-causing chemicals such as volatile organic compounds and fine particles –although in significantly lower amounts than second-hand cigarette smoke.12,13,14 A recent study has also found that individuals exposed to e-cigarette emissions demonstrated absorption of nicotine in their blood in levels comparable to those seen with exposure to cigarette smoke emissions.15 The published literature studying second-hand vapour is scarce and the evidence regarding health effects remains inconclusive. More well-designed studies to further assess the health risks of e-cigarette second-hand vapour exposure are needed.

**Youth E-cigarette Use**
The potential of e-cigarettes to encourage youth smoking uptake is one of the primary concerns associated with their use. In 2013, approximately 15% of Ontario's youth in grades 9 – 12 (about 99,800 students) used e-cigarettes in their lifetime, and nearly 5% of
them used nicotine-containing e-cigarettes. In the US, the National Youth Tobacco Survey (NYTS) found that e-cigarette experimentation and recent use doubled among middle and high school students between 2011 and 2012, with an estimated 1.78 million students having ever used e-cigarettes as of 2012.

Although we lack data on whether or not e-cigarettes act as a gateway to youth tobacco use, current trends are concerning. According to the NYTS, an estimated 160,000 American students who reported ever using e-cigarettes had never smoked a conventional cigarette. In Canada, 10% of non-smoking adolescents (16-18 years) have tried e-cigarettes. E-cigarettes could introduce adolescents to nicotine addiction and lead them to switch to cigarettes, which are more effective in suppressing nicotine cravings (i.e. they are more rewarding in delivering nicotine). Even if e-cigarette use does not lead to youth tobacco use initiation, youth e-cigarette use, particularly of nicotine-containing e-cigarettes, is concerning. Overuse or high doses of nicotine can cause nicotine poisoning, and improper inhalation or physical handling of the e-liquid might cause serious injuries. Nicotine has also been found to have potential negative impacts on adolescent brain development.

E-cigarettes are not currently included in the SFOA, which includes a number of measures to discourage youth smoking uptake, including a minimum age to purchase tobacco products and a prohibition on their display in retail stores. The SFOA and associated Smoke Free Ontario Strategy have been linked to impressive reductions in Ontario's youth smoking rates. Restrictions on the availability of e-cigarettes to young people are needed to further this progress rather than undermine it.

Furthermore, restrictions are urgently needed on e-cigarette promotion and advertising. It appears that e-cigarettes are often marketed in similar ways that cigarettes were promoted before most tobacco advertising and promotion was prohibited through federal tobacco legislation. This includes free product offers, celebrity endorsements, lifestyle advertising and attractive product packaging. Restrictions are also needed on e-cigarette product flavours. Candy flavours have traditionally been used by tobacco companies to appeal to youth and young adults.

A recent Canadian study found that more than half of youth tobacco users in grades 9 – 12 use flavoured tobacco products, demonstrating youth's preference for flavours. In recent years, the federal and Ontario governments have amended tobacco control legislation to prohibit flavoured little cigars and cigarillos to address youth use of these products. Similar legislation is now needed for e-cigarettes. Furthermore, candy and fruit flavours and attractive packaging for e-liquids may encourage young children to drink them. As discussed above, the US Centers for Disease Control and Prevention have reported cases of e-cigarette related poisonings involving children under 5 years old.

**Federal Regulation of E-cigarettes**

E-cigarettes are subject to different rules depending on whether or not they contain nicotine. Under Canada's *Food and Drugs Act*, e-cigarettes that contain nicotine and/or make a health claim require approval as a new drug before they can legally be sold or
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marketed in Canada. To date, none have been authorized for sale. Nevertheless, e-cigarettes with nicotine appear to have substantially permeated the Canadian market. In March 2009, Health Canada issued a notice to stakeholders noting that some electronic smoking products had been advertised and sold in Canada without market authorization. The notice asked persons who were importing, advertising or selling electronic smoking products without authorization to stop doing so or face enforcement actions.\textsuperscript{25} However, nicotine containing e-liquids continue to be easy to obtain online and at certain retailers.

There are no restrictions on selling, importing or marketing e-cigarettes that do not contain nicotine and that do not make a health claim. This has led to confusion among health professionals and members of the general public about the legal status of e-cigarettes in Canada. Furthermore, it appears that these regulatory gaps have been exploited by some e-cigarette manufacturers, particularly those whose products contain nicotine. Studies indicate that some e-cigarette cartridges that are labeled as nicotine-free actually contain nicotine.\textsuperscript{26, 27} Notably, a study commissioned by the Canadian Cancer Society- Quebec Division of thirteen e-cigarette products found that two thirds of products labeled as "nicotine-free" did contain nicotine.\textsuperscript{27} E-cigarettes could act as a gateway to nicotine addiction for youth and adults, possibly without the user realizing it. Furthermore, as e-cigarettes with nicotine cannot legally be sold or marketed in Canada, there are no regulatory restrictions on the amount of nicotine they can contain or requirements that they disclose their nicotine content on product labels.

Whether or not they contain nicotine, e-cigarette parts, cartridges and e-liquids are not subjected to the quality control and manufacturing standards or packaging and labeling requirements of traditional cigarettes. Therefore, there is likely limited consistency in the quality and components of different e-cigarette brands, and no assurance of safety for the user or those exposed to the second-hand vapour.

**E-cigarettes and Smoke-Free Public Places**

E-cigarettes (and vaping) are not included in the definition of smoking in the *SFOA*, which prohibits smoking in public places and workplaces, on school and daycare property and near the entrances to health care facilities. Use of e-cigarettes is also not regulated by Chapters 709, 608 and 636 of Toronto's *Municipal Code*, which prohibit smoking near public building entrances, on or near City playgrounds, sports fields and other park amenities and on public squares.

E-cigarette use in places where smoking is prohibited raises several concerns. As discussed above, there are possible health risks associated with exposure to second-hand vapour.\textsuperscript{12, 13, 14} For example, second hand vapour from nicotine containing e-cigarettes could lead to nicotine absorption in people who are exposed to it.\textsuperscript{15} Furthermore, because e-cigarette vapour resembles smoke, and the devices often resemble traditional cigarettes, their use in places where smoking is prohibited makes it difficult for enforcement staff, business owners and members of the public to tell whether tobacco is being used. Toronto Public Health's Tobacco Enforcement Officers and Public Health Nurses receive frequent inquiries from businesses and organizations, including from City divisions, that are concerned about e-cigarette use on their property.
E-cigarette use indoors may also undermine attempts to quit smoking. Two studies, including one on Canadian youth and young adults (ages 16-30), have found that some smokers use e-cigarettes to replace smoking in places where regular cigarette use is prohibited. An analysis of advertising claims found on e-cigarette websites has found that most claimed that e-cigarettes could be used anywhere, including smoke-free environments. The dual use of e-cigarettes and cigarettes could undermine smokers' efforts to quit smoking since vaping could sustain their addiction. Furthermore, the sight of e-cigarette use in public could act as a tobacco-use trigger for current smokers who are trying to quit as well as former smokers. Former smokers are more likely than non-smokers to try e-cigarettes, which could lead them to return to cigarette smoking or to start vaping rather than maintain complete abstinence from nicotine use.

Finally, vaping where smoking is prohibited contributes to the social visibility of smoking in public places. This in turn influences the perceived acceptability of smoking, particularly among youth. Restrictions on e-cigarette use in public places are necessary to ensure that children and youth are exposed to smoke-free role models. This is particularly necessary in places that children and youth frequent such as school property, restaurants, shopping malls and recreational facilities.

**Actions in other Jurisdictions - Ontario and Canada**

Many municipalities across Ontario have focused their policy response to e-cigarettes on advocacy to the provincial and federal government. Notably, the Association of Local Public Health Agencies (alPHA) recently adopted a resolution sponsored by the Peterborough County-City Health Unit and Board of Health requesting Health Canada and the Ontario Ministry of Health and Long-Term Care to regulate the manufacture, sale, promotion, display, and use of e-cigarettes. However, some jurisdictions have taken local action to restrict where e-cigarettes can be used. In January 2014, Innisfil Ontario added e-cigarettes to their smoke-free outdoor sports and recreational spaces by-law. Peel Region's Smoking in the Workplace policy prohibits e-cigarette use at Region of Peel workplaces by employees, contractors and visitors. E-cigarettes are also included in tobacco-free policies at school boards in York Region.

In Toronto, the Toronto Transit Commission (TTC) board is expected to consider amendments to their smoking by-law to prohibit e-cigarette use on TTC property in Fall 2014. The Centre for Addiction and Mental Health (CAMH) prohibits e-cigarette use anywhere on CAMH property as part of their commitment to eliminate tobacco related triggers for patients who are trying to address their tobacco addiction.

Aside from Innisfil, at least two other Canadian municipalities include e-cigarettes in local by-laws that restrict smoking in public places: Red Deer, Alberta and Hantsport, Nova Scotia. Furthermore, school boards in Edmonton, Alberta have prohibited e-cigarette use on school property after police reports of student use of e-cigarettes to vaporize marijuana oil. The provincial government of Nova Scotia is also expected to introduce legislation that prohibits e-cigarette sales to minors, point of sale advertising and use in places where cigarette smoking is prohibited.
Montreal Public Health recently made a number of recommendations for federal regulation of e-cigarettes including marketing them as a Canadian tobacco product, setting standards for minimum quality, limiting advertising and sponsorship, only recommending e-cigarettes as an aid for quitting smoking under the supervision of a doctor and making them available for smokers trying to quit before making them available for everyone else in Canada.  

A number of health organizations across Canada are aligned on the need for regulation of e-cigarettes to address public health concerns associated with their use and availability. These include the Ontario Campaign for Action on Tobacco, the Non-Smokers Rights Association and the Canadian Public Health Association.

**Actions in Other Jurisdictions - Other Countries**

Several municipalities and states in the U.S. prohibit e-cigarette use where smoking is prohibited and/or prohibit sales to minors. These include New York City, Chicago, Los Angeles, San Francisco, King County (Washington State which includes Seattle) and New Jersey, North Dakota and Utah.

In April 2014, the U.S. Food and Drug Administration issued a proposed rule that would extend its tobacco authority to e-cigarettes. The proposed regulation, which is currently posted for public comment, would stipulate labelling, reporting and marketing requirements for e-cigarette manufacturers and prohibit sales to minors, among other requirements.

Similarly, the European Union recently included e-cigarettes in a revised European Union Products Directive, which mandates maximum nicotine concentration levels and volumes for cartridges and containers of e-liquids; packaging, labelling and reporting requirements for e-cigarette manufacturers and advertising requirements. Member states will have until 2016 to transpose the new rules into national law, which will apply to all (nicotine containing) e-cigarettes with the exception of those that have been approved as a medicine.

**E-cigarettes and Cessation**

E-cigarettes are mostly used by smokers with the intention of helping them to quit or reduce their cigarette smoking. Similarly, some public health experts support e-cigarette use as a safer alternative to cigarette use. However, limited research has examined e-cigarettes' effectiveness as a smoking cessation tool. The research that does exist on this subject is inconclusive. For example, a 2013 randomized controlled trial in New Zealand concluded that e-cigarettes might be as effective as nicotine patches in helping people quit smoking, although these findings were statistically insignificant.

In contrast, a 2013 U.S. study found that although quitting tobacco was the most frequently reported reason for e-cigarette use among a large sample of state tobacco quit line callers, e-cigarette users were less likely than non-users to be tobacco abstinent seven months after the initial survey. Furthermore, several studies have identified high rates of dual use of e-cigarettes with cigarettes among youth and adult users, which means that
smokers tend to continue smoking while using e-cigarettes. This may undermine smokers’ efforts to quit by sustaining their nicotine addiction and drawing them away from other aids that have been proven to be safe and effective.

Toronto Public Health receives regular inquiries from people who are interested in using e-cigarettes to quit smoking, particularly those that contain nicotine. Currently, TPH does not recommend the use of e-cigarettes to quit smoking as they have not been approved by Health Canada for this purpose. As described above, e-cigarettes that contain nicotine or that make a health claim (for example, that they can be used as a cessation aid) require market authorization before they can legally be imported, advertised or sold. E-cigarette manufacturers can apply to Health Canada for consideration of their product as a health product. Health products receive market authorization by Health Canada following a successful review of scientific evidence demonstrating safety, quality and efficacy with respect to the intended purpose of the health product. To date, no e-cigarettes that contain nicotine or that claim to be effective for smoking cessation have received market authorization in Canada.

While e-cigarettes have not been approved as a cessation aid, Health Canada has approved several products that could assist people who are trying to quit smoking. These include the nicotine patch, gum, lozenge, spray and inhaler (Nicotine Replacement Therapies- NRTs) and two nicotine-free medications. Toronto Public Health, family physicians, Community Health Centres and community partners like the Canadian Cancer Society’s Smokers’ Helpline, Nicotine Dependence Clinic at CAMH and Leave The Pack Behind can provide access to these cessation aids as well as to self-help materials and counselling services to help individuals quit smoking. More information is available on the TPH website http://www.toronto.ca/health/tobaccofree/index.htm.

**Recommended Approach and Next Steps**

As demonstrated in this report, e-cigarette use in Canada is a public health concern for the following reasons:

1. there is emerging evidence of health and safety risks associated with e-cigarette devices, vaping, and exposure to second-hand vapour;
2. quality control and manufacturing standards for e-cigarettes are lacking;
3. youth use of e-cigarettes could lead to nicotine addiction or smoking initiation; and
4. e-cigarette use may impair efforts to denormalize all smoking behaviour and promote a smoke-free lifestyle to children, youth and current or former smokers who are trying to quit.

This report recommends that the Ontario Minister of Health and Long-Term Care amend the SFOA to prohibit vaping where ever smoking is prohibited, prohibit e-cigarette displays in retail stores and restrict sales of e-cigarettes to minors. This will address concerns about health risks of exposure to second-hand vapour and the potential of e-cigarette use to undermine existing tobacco control legislation and re-normalize smoking. Moreover, such action would ensure a consistent approach to tobacco control policy and enforcement in communities across the province.
If the provincial government has not acted to regulate e-cigarettes within six months, the Medical Officer of Health will report on municipal regulation to prohibit e-cigarette use in Toronto wherever smoking is currently prohibited under local or provincial legislation. In the interim, businesses and organizations are encouraged to adopt internal policies that prohibit e-cigarette use on their property wherever smoking is currently banned. The Medical Officer of Health will also work with the City Manager to explore development of an administrative policy prohibiting e-cigarette use in the workplace.

Finally, the Medical Officer of Health recommends amendments to federal legislation to ensure manufacturing consistency of e-cigarettes, require that e-liquid is sold in child-proof bottles, stipulate labelling and reporting requirements and restrict marketing and promotion of e-cigarettes.

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**SIGNATURE**

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Dr. David McKeown  
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**ATTACHMENTS**

Attachment 1: Toronto Public Health Position Statement on Electronic Cigarettes
REFERENCES


10 Centers for Disease Control and Prevention. (2014). Notes from the Field: Calls to Poison Centers for Exposures to Electronic Cigarettes — United States, September 2010–February 2014. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6313a4.htm?s_cid=mm6313a4_w


25 Health Canada. (March 2009). Notice: To All Persons Interested in Importing, Advertising or Selling Electronic Smoking Products in Canada.


27 Canadian Cancer Society- Quebec Region. (September 2013). Press Release: The Canadian Cancer Society’s lab tests and exclusive survey: Electronic cigarettes have misleading labels and are gaining popularity among youths.
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