

E-CIGARETTE REVIEW UPDATE

EXECUTIVE SUMMARY

The popularity of electronic smoking products (ESPs), also known as electronic cigarettes, e-cigarettes and electronic nicotine delivery systems (ENDS), has been increasing in recent years. It has been reported that the e-cigarette industry has grown to an estimated three billion dollar business globally with more than 400 e-cigarette brands in circulation. As per Council direction, Administration has partnered with Alberta Health Services (AHS) to examine the issue of e-cigarettes and the potential impacts on communities and citizens through a two-phased work plan (Attachment 1). This report constitutes Phase 1 of the work plan and outlines efforts undertaken to date, including research into the community and health impacts of e-cigarette use, the role of e-cigarettes in support of smoking cessation, the potential to renormalize smoking behaviour, and potential public nuisance issues. This report also provides an overview of the current legislative state in jurisdictions across North America, an update on Federal and Provincial review efforts, and highlights of a cost and resource sharing agreement with AHS for Phase 2 work.

Phase 2 of the work plan will include internal and external stakeholder consultation, including an online survey and targeted stakeholder consultations in conjunction with AHS, Alberta Health, the Canadian Cancer Society, the e-cigarette business community and key City partners. Phase 2 will be reported back to the SPC on Community & Protective Services by 2015 June.

ADMINISTRATION RECOMMENDATION(S)

That the SPC on Community and Protective Services recommends that Council:

1. Receive this report for information and;
2. Direct Administration to proceed with Phase 2 of the review process in conjunction with Alberta Health Services, reporting back to the SPC on Community & Protective Services by 2015 June with review recommendations.

PREVIOUS COUNCIL DIRECTION / POLICY

On 2014 March 31, Council approved Councillor Diane Colley-Urquhart's Notice of Motion 2014-13 requesting Administration prepare, in respect to e-cigarettes and their potential impacts on communities and citizens, a project scope and work plan that would: a) lead to determining recommendations for Council, including any bylaw changes, as to how this matter could be addressed; b) include consultation and participation among identified key stakeholders, including, but not limited to, Alberta Health Services, and Alberta Health and Wellness; c) identify resource and cost estimates; d) be presented to the 2014 September meeting of the SPC on Community and Protective Services.

On 2014 September 22, Council approved Report CPS2014-0663 as amended: 1) Receive this report for information; and 2) Direct Administration to partner with Alberta Health Services (AHS) on a shared approach to the work identified in the attachment, and report back in 2014 December to Council, through the SPC on Community and Protective Services with Phase 1 findings and an AHS/City cost and resource sharing agreement for Phase 2 work.

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BACKGROUND

E-cigarettes are battery-powered electronic smoking products (ESPs) that simulate tobacco smoking behaviour. E-cigarettes and other ESPs that contain nicotine are also known as electronic nicotine delivery systems (ENDS). E-cigarettes utilize liquid substances known as e-liquids, which typically contain a mixture of propylene glycol, vegetable glycerine and flavourings and may contain additives such as nicotine. These products are sold on the internet and in a variety of retail stores, including specialized “vape” shops. While e-cigarette use has become more commonplace, the regulation of the devices is inconsistent throughout North America. In Canada, neither Health Canada nor Alberta Health have fully evaluated the products for safety, quality and efficacy, and subsequently advise consumers against the purchase or use of electronic smoking products. As a result of this regulatory vacuum, certain jurisdictions within Canada have proceeded with their own tailored approach to the issue. In Alberta, municipalities have the authority to issue bylaws for municipal purposes respecting safety, health and welfare of people; protection of people and property; as well as nuisances. For example, The City of Calgary Smoking Bylaw 57M92 restricts smoking in certain public places that are not covered by the provincial *Tobacco Reduction Act*.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

As per Council direction, Administration has engaged AHS in the multi-phased e-cigarette review process, including utilizing AHS research support for Phase 1 and the development of a cost/resource sharing agreement for Phase 2. This report constitutes Phase 1 of the review and provides an overview of current research on existing legislation, policies and bylaws; emerging legislative and research developments; and an overview of current research on potential health impacts, smoking cessation efficacy, concerns regarding the renormalization of smoking behaviour, and potential public nuisance issues.

Current Legislation, Policies and Bylaws

In Canada, smoking, tobacco and nicotine usage are subject to a number of federal and provincial statutes as well as municipal bylaws. Federally, e-cigarettes with nicotine are subject to the *Canada Food and Drugs Act*, and those without nicotine are subject to the *Canada Consumer Product Safety Act*. Alberta has two statutes that regulate the distribution and use of tobacco products: the *Tobacco Reduction Act (TRA)* and the *Tobacco Tax Act (TTA)*. The *TRA* prohibits smoking in indoor public places and workplaces. While it defines “smoking” as having control over a lit tobacco product, comprised in whole or in part of tobacco, including tobacco and any extract of tobacco leaves, it does not regulate e-cigarettes at this time. The City of Calgary Smoking Bylaw 57M92 further restricts smoking in Plus 15 systems and certain outdoor locations including Olympic Plaza and within five metres of outdoor recreational areas (e.g. sports fields and playgrounds); however, the bylaw does not currently include e-cigarettes.

In 2014 May, the European Union extended its tobacco directive to include e-cigarettes that include nicotine, in order to harmonize the quality and safety requirements of the products. Member States will have until 2016 to implement the new rules.

Attachment 2 provides an overview of jurisdictions that regulate e-cigarettes within Canada and the United States, including outlining the legislative rationale and regulatory specifics.

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Emerging Legislative and Research Developments

Several governments and independent agencies are currently studying e-cigarettes or considering legislative changes, including the federal government, the provincial government, and other jurisdictions such as the Government of Ontario and the United States Food and Drug Administration (USFDA). The federal government has established a parliamentary committee to study e-cigarettes, including the potential risks, benefits, and options for regulating them. Provincially, the government is continuing to monitor the research on e-cigarettes and is collaborating with stakeholders to determine whether e-cigarette products should be regulated. Further, the Government of Ontario has recently commissioned a study on the prevalence of e-cigarette use, especially among youth, along with a review of health impacts and the potential for the renormalization of smoking behaviour. Within the United States, the USFDA is also conducting research on e-cigarettes, and has proposed new regulations that are awaiting federal approval. Further details on these emerging developments are included in Attachment 3.

Overview of Current Research

Administration, in conjunction with AHS, has reviewed e-cigarette research conducted to date on potential health impacts, smoking cessation, renormalization of smoking behavior, and potential public nuisance issues.

Potential health impacts (e-cigarette ingredients)

Research conducted by various government and non-profit organizations suggests that the primary ingredient in e-cigarettes, propylene glycol, may cause eye and respiratory irritation with short-term exposure. Propylene glycol produces the smoke-like vapour associated with e-cigarettes when exhaled. Health Canada has approved propylene glycol as an ingredient in injections, topical applications and inhalations, but has indicated it can result in health complications if used in significant amounts. In addition to propylene glycol, e-cigarettes also can contain nicotine, and AHS along with other health advisory agencies have identified concerns that e-cigarette use can contribute to nicotine addiction and the subsequent associated health risks. Health Canada has further advised that e-cigarettes may pose risks such as nicotine poisoning in certain populations, and recommends that the electronic products and cartridges be kept out of the reach of children.

Smoking cessation

Studies indicate that the use and awareness of e-cigarettes has dramatically increased over the past few years, with internet searches for e-cigarettes now exceeding any other smoking alternative. Proponents of e-cigarettes suggest that the product is an effective means of supporting smoking cessation. However, the World Health Organization (WHO) has reported that e-cigarettes are not a proven nicotine replacement therapy and are not considered a safe and effective smoking cessation aid. AHS supports this assertion, highlighting that the devices have not been fully evaluated for safety, quality and efficacy, and that implying a smoking cessation benefit may be providing the public with the impression the products are safe to use.

Renormalization of smoking behaviour

While implementation of both municipal and provincial legislation restricting environmental tobacco smoke has had a positive effect in terms of reducing smoking rates, the behaviour of smoking an e-cigarette resembles tobacco smoking and concerns exist that this growing trend

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may renormalize traditional smoking. In particular, health experts are concerned that youth and non-smokers will start using e-cigarettes with nicotine and then once addicted, switch to cigarette smoking. Further, with e-cigarettes marketed in almost 8,000 varieties, including bubble gum and fruit flavours, there is a concern that marketing efforts are specifically targeting youth and will further increase the likelihood of e-cigarettes acting as a gateway to cigarette use particularly among young people. The WHO's recent report, "Electronic nicotine delivery systems" (ENDS), which include e-cigarettes, further supports this assertion, indicating that advertising the attractiveness of smoking may perpetuate and renormalize smoking.

Potential public nuisance issues

Exposure to second-hand vapour from e-cigarettes is a potential public nuisance for non-smokers and bystanders, according to recent studies. The WHO reports that inhalation of vapour substances may cause short-term effects including eye and respiratory irritation from exposure to propylene glycol. The WHO report states: "The fact that ENDS exhaled aerosol contains on average lower levels of toxicants than the emissions from combusted tobacco does not mean that these levels are acceptable to involuntarily exposed bystanders." The WHO reports that serious short-term health problems may occur, but they are rare. The report states "the existing evidence shows that ENDS aerosol is not merely 'water vapour' as is often claimed in the marketing for these products." The WHO also indicates that while e-cigarettes are likely less toxic than tobacco cigarettes, "evidence suggests that exhaled e-cigarette aerosol increases the background air level of some toxicants, nicotine and particles." The report describes "adverse effects" of these substances following both short-term and long-term exposures. Similarly, the American Industrial Hygiene Association's white paper, "Electronic Cigarettes in the Indoor Environment," indicates that the generation of airborne ultrafine particles from e-cigarettes is a potential indoor air quality issue.

Summary of Initial Findings

Based on the legislation enacted in other jurisdictions and the current and emerging research on potential health impacts and potential for the promotion of smoking, particularly in youth, it is clear that continued review of this issue is crucial, including consultation with Calgarians regarding e-cigarette impacts and their concerns. Of particular note are the research findings that e-cigarette vapour contains aerosols, particulates and toxicants that can cause eye and respiratory irritation in bystanders. In addition, the vapour may cause more serious short-term health problems, and is a potential indoor air quality issue.

Next Steps

Moving forward in Phase 2, Administration will undertake consultation with a variety of stakeholder groups regarding the potential impacts identified to date and continue to collaborate with AHS through a cost-sharing agreement to jointly fund an online survey. Additionally, Administration will review the identified issues, examine potential legislative implications, and report back to the SPC on Community & Protective Services by 2015 June with review recommendations.

Stakeholder Engagement, Research and Communication

Administration engaged and collaborated with AHS, Alberta Health, the federal government and The Ontario Tobacco Research Unit as leading authorities in the field. Administration also

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conducted a review of current research on e-cigarettes as well as a review of legislation and emerging developments in other jurisdictions. In addition, The Law Department has been involved in Phase 1 and will continue to collaborate on Phase 2 of the review.

Strategic Alignment

This report aligns with Council's Fiscal Plan for Calgary 2012-2014:

"Ensuring every Calgarian lives in a safe community and has the opportunity to succeed"

Social, Environmental, Economic (External)

The City is committed to maintaining community standards and promoting safe and vibrant communities for all Calgarians. The review of e-cigarettes will address potential social and environmental implications, including public safety and nuisance-related issues. The review will also support community standards, which contribute to the creation of a healthy and safe community, supporting economic growth and creating a city where citizens want to invest.

Financial Capacity

Current and Future Operating Budget:

As partners in the E-cigarette Review, ABS and AHS have agreed to provide resources for Phase 2 of the review, including a shared cost model for a public consultation survey. The survey will cost \$25,000, with \$12,500 funded through the existing ABS budget and \$12,500 funded by AHS. This includes funding for an online survey, associated data analysis, and a report on the survey findings. This cost-sharing model also includes input from the AHS Medical Officer of Health and access to a dedicated AHS research unit for the duration of the review. Administration will report on the survey findings in the development of the Phase 2 recommendations.

Current and Future Capital Budget:

Not applicable

Risk Assessment

The e-cigarette work plan process mitigates potential project risks through the implementation of a stakeholder consultation process, including both public consultation and targeted engagement of key community stakeholders.

REASON(S) FOR RECOMMENDATION(S):

This Report constitutes Phase 1 of the e-cigarette review and outlines the work undertaken to date, including: research into the community and health impacts of e-cigarette use; the role in supporting smoking cessation; the potential to renormalize smoking behaviour; and potential public nuisance issues. This report also provides an overview of the current legislative state in jurisdictions across North America; an update on Federal and Provincial review efforts; and highlights of a cost and resource sharing agreement with Alberta Health Services for Phase 2.

ATTACHMENT(S)

1. E-cigarette Work Plan Schedule
2. Overview of Existing E-cigarette Legislation
3. Emerging Legislative and Research Developments