

# City Council Information Form



DATE: 08/27/2015  
ASSIGNED STAFF: Nick Edwards  
DEPARTMENT: Administration

TYPE OF FORM: Presentation

Form No.: 5006

## APPROVALS:

None

## ISSUE/REQUEST:

A request to prohibit the use of E-Cigarettes/ENDS in public places

## KEY ISSUES:

The Lee's Summit Health Education Advisory Board (HEAB) has studied and discussed the issue of e-cigarettes at two different meetings, almost one year apart. Drs. Salanski and Kraemer reviewed with the Board more than 30 scientific studies, review articles, position statements, and editorials from the current medical literature in leading those discussions. The HEAB focused its discussion on three major public health concerns: (1) The potential health risks of secondhand exposure to exhaled vaping emission; (2) The risk of re-creating social norms around use of tobacco-like products in public places, resulting in increasing use of e-cigarettes and tobacco cigarettes by adolescents and young adults; and (3) Enforcement difficulties if vaping is not included in smoke-free ordinances.

## PROPOSED COMMITTEE MOTION:

I move to recommend to the City Council approval of

## PROPOSED CITY COUNCIL MOTION:

I move to direct staff to prepare an ordinance amending the City's Clean Indoor Air ordinance to include prohibiting the use of E-Cigarettes/ENDS in public places.

FIRST MOTION:

SECOND MOTION:

## BACKGROUND:(including location, programs/departments affected, and process issues)

What are Electronic Cigarettes (e-Cigs) or Electronic Nicotine Delivery Systems (ENDS)?

These are devices powered by a small battery that is attached to an atomizer/vaporizer with a heating element that creates a vapor that is inhaled through a cartridge that includes a solvent mixture of water, propylene glycol, nicotine, and additive flavoring (including candy & fruit – flavors that make e-cigs particularly appealing to youth). Other chemicals in the solvent mix include aldehydes, tobacco-specific nitrosamines, tobacco alkaloids, polycyclic aromatic hydrocarbons, and volatile organic compounds – many of these chemicals are known cancer-causing agents. There is no FDA regulation of these products and the ingredients in the cartridges vary widely, including amounts of nicotine.

Potential Health Risks of Secondhand Vapor Exposure

The hazards of passive cigarette smoke exposure are well documented, with much of that risk from sidestream smoke exposure to combustible products of tobacco. By contrast, the secondhand emissions from e-cigarettes consist entirely of what is exhaled by the user.

These products have been available in the US for only about ten years. Scientific data is limited regarding the short and long term health effects of exposure to the exhaled vapor - but scientific studies prove that this e-cigarette aerosol is not a harmless water vapor (as has been claimed by some in the -cigarette industry) and can be a source of indoor air pollution.

Study designs vary and the measured components are not the same in all studies. Reported components in the vapor include: formaldehyde, acetaldehyde, acrolein, isoprene, acetic acid, propylene glycol, glycerine, propanol, propanediol/triol, 2-butanedione, 16 different carcinogenic polycyclic aromatic hydrocarbons, and fine/ultrafine microparticles (such as aluminum, tin, silver, iron, nickel, silicate, and chromium). In studies that compared the vapor to second-hand tobacco smoke, the amounts of these chemicals are 5-40x less than from standard cigarettes. In one study, the ambient level of ultrafine particles was 18% of the level compared to tobacco smoke.

Nicotine was found in the e-cig vapor in all studies reviewed; one study measured the ambient level of nicotine to be 10% of the level compared to tobacco smoke. Another study found the measured serum cotine (nicotine) levels in persons exposed to e-cig vapor and tobacco smoke to be similar at 0.5 ng/ml compared to 0.8 ng/ml. Residual nicotine on indoor surfaces can also lead to thirdhand exposure through skin, inhalation, and ingestion long after the aerosol has cleared the room.

Although the levels of these carcinogenic compounds in the e-cig vapor is less than the levels from exposure to second-hand tobacco smoke, the long term health effects and cancer risk of exposure to low levels of carcinogens are not known. It is known that in the short term, inhalation of fine/ultrafine particles can trigger respiratory symptoms and constrict arteries (which theoretically could lead to heart attacks). Nicotine/cotine is passively absorbed into the bloodstream of persons exposed to the e-cig vapor.

The “precautionary principle” for Public Health may be invoked when a phenomenon, a product, or a process with potentially dangerous effects has not been subjected to full scientific and objective evaluation so that the harm cannot be determined with sufficient certainty. The use of E-cigarettes in indoor public places meets this definition for a preventive public health policy. The acceptable “precaution” in such a case is to restrict the use of the product while awaiting definitive evaluation of the public health risks involved in its use.

#### Risk of Re-creating Social Norm of Tobacco Product Use

Multiple public health organizations raise the concern that allowing e-cig use in public places will re-create the social norm for using tobacco products – potentially damaging decades of work on comprehensive smoke-free air laws that have helped lead to significant declines in smoking rates by both adults and youth. This is of particular concern related to the use of e-cigarettes by middle and high school youth.

Developing adolescent brains are highly susceptible to the addictive effects of nicotine. The rate of use of e-cigarettes by high school students across the US has risen significantly in the year 2014 according to the CDC – with 16.4% of 10th graders and 4% of middle school students reporting use within 30 days of the survey (43% of those were previous non-tobacco smokers). Nationally, more than a quarter million middle and high school students who had never smoked tobacco cigarettes reported using e-cigarettes in 2013. This increase is due to marketing techniques aimed at young people (including flavoring nicotine) as well as a perception that these are “safe” alternatives to tobacco cigarette use – and in spite of regulations in most states (including Missouri) prohibiting the sale of e-cigarette devices or nicotine cartridges to minors.

The overriding Public Health concern is whether this use of e-cigarettes and possible resultant nicotine addiction will lead to use of combustible (tobacco) products, such as cigarettes and cigars. A study recently reported in the Journal of the American Medical Association looked at that specific question. In that study of high school students who had not previously smoked combustible cigarettes, surveys one year later showed that 25% of those students who used e-cigs also used combustible tobacco products, while only 9% of students who never used e-cigs reported using combustible tobacco products. This study clearly raises concerns about increased use of

combustible tobacco products in e-cig-using high school students. Further research is needed to understand whether this association is causal.

#### Enforcement Concerns

The American College of Environmental Medicine notes that “the inability to distinguish between conventional and e-cigarettes make it difficult to monitor and enforce compliance if e-cigarettes are not treated the same way as conventional cigarettes in smoke-free areas.”

An additional problem is that any additive, including hash oil, cannabinoids (from marijuana), liquid cocaine, or methamphetamine, can be mixed into or replace the E-liquid. This further raises concerns about enforcement, as well as concerns about secondhand exposure to exhaled vapor and residues.

#### Existing E-cig Ordinances in Area Cities

Kansas: Topeka; Olathe; Overland Park

Missouri: St Joseph; Columbia

#### HEAB’s Request

The Health Education Advisory Board requests direction from Council to work with staff to amend the current Clean Indoor Air Act to prohibit the use of electronic cigarettes and electronic nicotine delivery systems (ENDS) in all locations where that ordinance prohibits the use of tobacco products.

#### **IMPACT/ANALYSIS:**

<b>TIMELINE</b>	<b>Start:</b>	<b>Finish:</b>
<b>OTHER INFORMATION/UNIQUE CHARACTERISTICS:</b>		

#### **STAFF RECOMMENDATION**

**OTHER BOARDS AND COMMISSIONS ASSIGNED: Not Applicable**  
**DATE:**  
**ACTION:**

**COUNCIL COMMITTEE ASSIGNED: Not Applicable**  
**DATE:**  
**ACTION:**

#### **List of Reference Documents Attached**

1. ECigarette Presentation

# Electronic Cigarettes...

A report by  
Lee's Summit's  
Health Education  
Advisory Board



**HEAB Recommendation**  
Prohibit e-cigarettes (ECs) use in locations where smoking is prohibited by Clean Indoor Air Act



**Background**  
The Health Education Advisory Board (HEAB) was formed in 2008 to provide guidance to the Lee's Summit Health Department on health promotion and disease prevention. The Board is composed of community members and health professionals. The Board's mission is to identify and address the health needs of the community and to develop and implement health promotion and disease prevention programs. The Board's work is guided by the Clean Indoor Air Act (CIAA) and the Lee's Summit Health Department's policies and procedures.

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**HEAB Recommendation**  
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**Background**  
The following information was gathered from the community health assessment conducted in 2014. The information was gathered from the community health assessment conducted in 2014.

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...A report by Lee's Summit's Health Education Advisory Board



# **HEAB Recommendation**

**Prohibit e-cigarette/ENDS use in  
locations where smoking is  
prohibited by Clean Indoor Air Act**

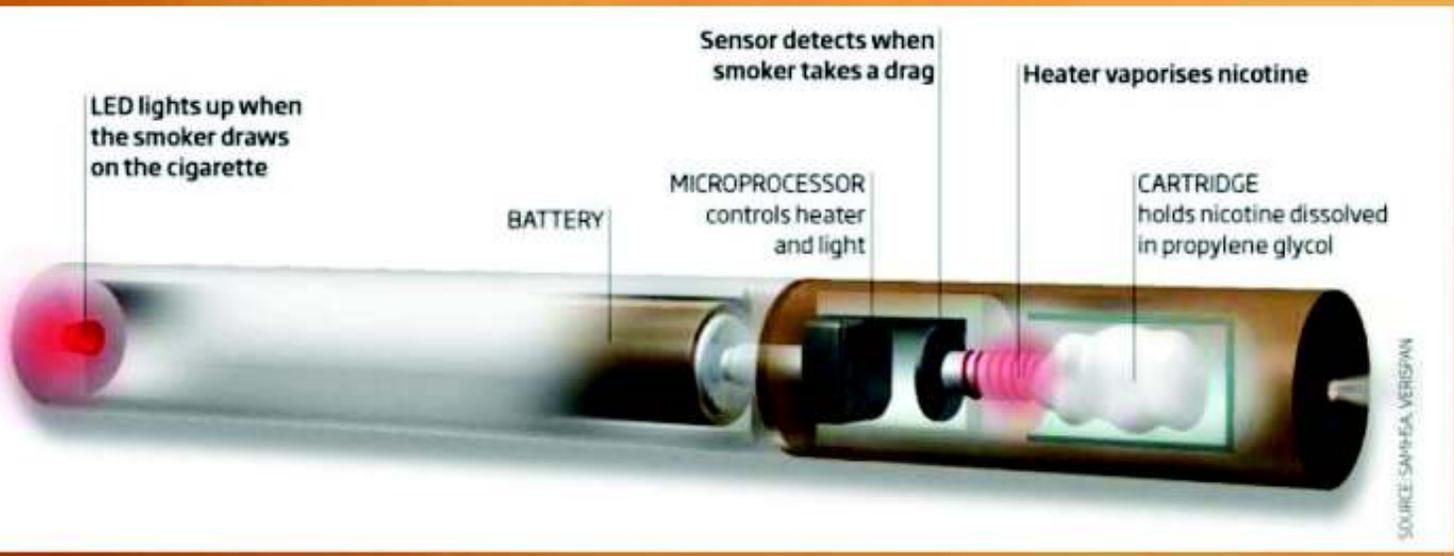




# Background

- e-cig popularity is increasing.
- Additive flavors/colors appeal to youth.





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# Flavor Vapes

**NO TAR  
NO ASH  
NO SMELL  
NO SMOKE**

Tobacco



Menthol



Blueberry



Vanilla



Cherry



Grape



Coffee



Strawberry





# Scientific Evidence



# EVIDENCE

**Formaldehyde**  
**Carcinogenic hydrocarbons**  
**Metal Microparticles**  
**Nicotine**  
**Propane diol**  
**Propylene glycol**





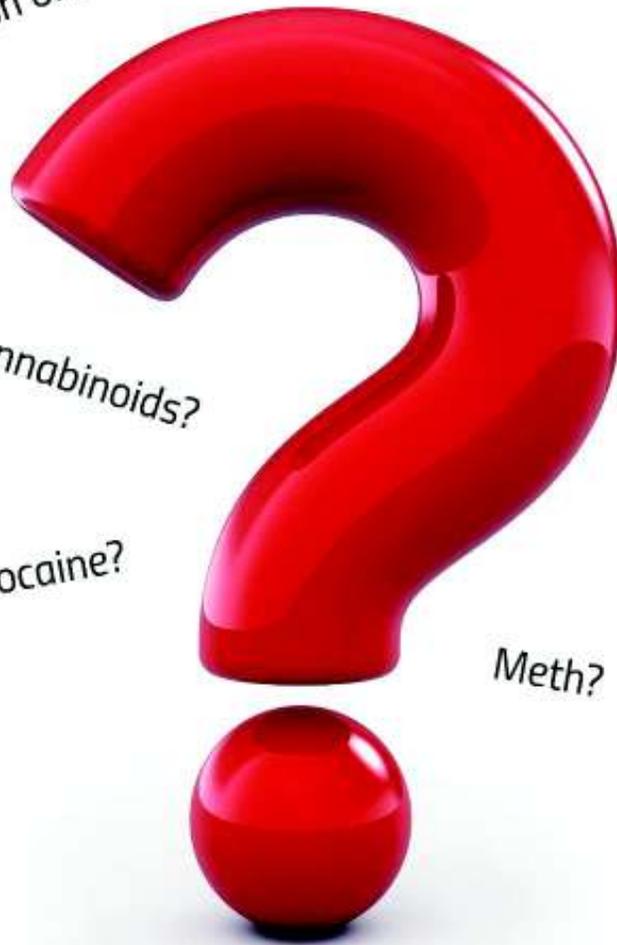
Propylene glycol

Hash oil?

Cannabinoids?

Cocaine?

Meth?



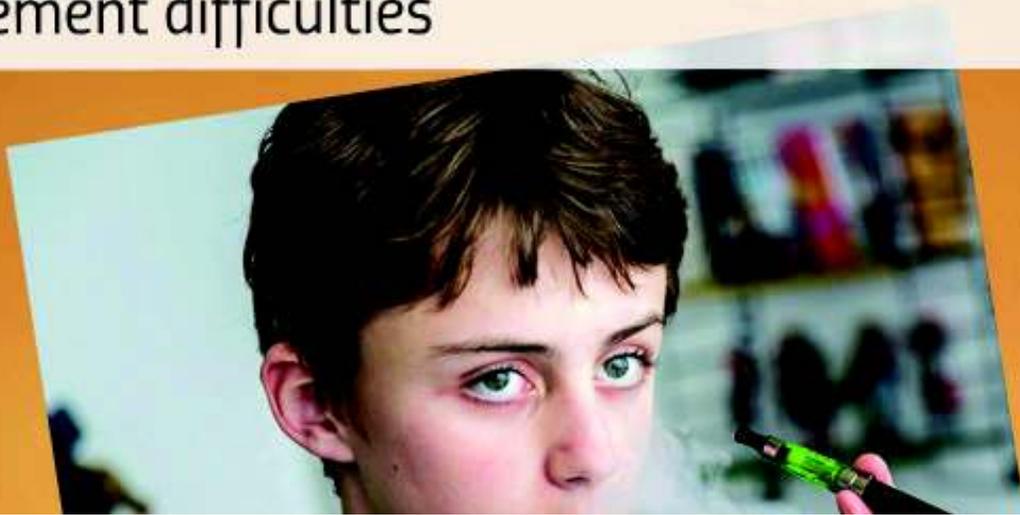
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- Secondhand exposure to vapor emissions
- Re-creating social norms around public "smoking"
- Youth e-cig use → nicotine addiction → smoking
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# Precautionary Principle

- Potentially dangerous effects
- Scientific evaluation in progress
- Uncertain degree of harm



**Restrict use  
of product  
pending  
evaluation.**

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**Restrict**

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# Area e-Cig Ordinances

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Olathe  
Topeka  
Overland Park

Missouri:  
St. Joseph  
Columbia



# **HEAB Recommendation**

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prohibited by Clean Indoor Air Act**



HEAB Request:

Direction to work with staff to ammend the Clean Indoor Air Act to prohibit the use of electronic cigarettes and Electronic Nicotine Delivery Systems in all locations where that ordinance currently prohibits smoking.

*Thank you!*