**E-cigarette Primer**

**What are e-cigarettes?**

E-cigarettes, or electronic cigarettes, are devices that allow users to mimic the act of smoking cigarettes while inhaling nicotine. Instead of smoke from burning tobacco, users inhale vapor consisting of nicotine, flavor additives and other chemicals. When users inhale from the end of an e-cigarette, a battery operated device heats a liquid solution into a vapor.[[1]](#footnote-1)



**Smokeless does not mean harmless**

The risks posed by e-cigarettes are not fully understood, but we do know that smokeless does not mean harmless. Preliminary testing of e-cigarettes has identified chemicals known to cause cancer and birth defects in first and secondhand e-cigarette vapor. However, e-cigarettes remain under-studied and un-regulated.

Because e-cigarettes are unregulated, two e-cigarettes produced on the same line can be dramatically different. Manufacturers can make, market and sell their e-cigarettes without transparency or consistency. Most e-cigarettes currently are being manufactured overseas where manufacturing and safety standards may differ; making it more difficult to know what is in e-cigarettes without regulation.

Many public health professionals are concerned that e-cigarettes may:

* Have an adverse impact on users' health;
* Encourage smoking initiation;
* Perpetuate the use of nicotine and tobacco products among tobacco users who might otherwise quit, and even those who have quit; and
* Counter the effectiveness of smoke-free policies

**Nicotine**

Different brands of e-cigarettes contain varying amounts of nicotine, which impacts the cardiovascular system and is the primary addictive drug in all tobacco products.

E-cigarette advocates have promoted these products as smoking cessation tools, although little evidence exists that they are effective cessation aids. In contrast, there are 7 FDA-approved medications that are tested and regulated, and a toll-free quitline (800-QUIT NOW) that tobacco users can use to improve their chance of successfully quitting.

**Carcinogens and Toxins**

E-cigarette proponents argue that the vapor produced by e-cigarettes is nothing more than water vapor. There is a lack of scientific data to support this argument while there is evidence that the vapor contains carcinogens and other toxic chemicals.

The FDA has analyzed samples of e-cigarettes and found known carcinogens, and detectable levels of other toxic chemicals.[[2]](#footnote-2)Center for Tobacco Control Research and Education at University of California San Francisco analyzed recent studies and concluded Benzene, Cadmium, Isoprene, Lead, Nickel, Formaldehyde, Acetaldehyde, and Toluene are present in many brands of e-cigarettes.[[3]](#footnote-3)

A risk associated with e-cigarettes is that children may consume e-cigarette solutions, which are not manufactured in child safe protection containers and can contain fatal doses of nicotine and harmful chemicals. E-cigarettes are advertised in kid-friendly flavors, such as strawberry, chocolate and mint, and in packaging and smaller sizes that appeal to young people. Since 2011, the Oregon Poison Control Center has responded to 12 calls regarding unintentional nicotine poisoning in children that consumed e-cigarette solutions. Five of these cases included visits to the emergency room.

**E-cigarette use is on the rise**

The use of e-cigarettes by teens and adults is on the rise, potentially creating new addictions to nicotine among Oregon’s youth, deepening the addiction for current smokers, and renewing addiction for former smokers.

* CDC data from the National Youth Tobacco Survey showed that e-cigarette use doubled among U.S. middle and high school students during 2011-2012.[[4]](#footnote-4)
* 1 in 5 youth trying e-cigarettes are not conventional cigarette smokers and are potentially becoming addicted to nicotine through e-cigarettes.
* Additional data analyzed by the CDC showed that the number of Americans who used e-cigarettes quadrupled from 2009 to 2010.[[5]](#footnote-5)
* According to the Legacy Foundation, 7.2% of quit smokers returned to nicotine addiction via e-cigarettes in 2012.

**Marketing**

The greatest danger of these products lies in the marketing. The unlimited promotion of e-cigarettes as nicotine maintenance products has the potential to foster the norm that addiction to nicotine is acceptable, and is of little health consequence to the user or the population as a whole.

The growing and unregulated e-cigarette market has attracted the attention of The Big Three (Reynolds American, Lorillard, Phillip Morris/Altria), who have recently invested in e-cigarette products and put significant dollars into marketing them. The marketing of e-cigarettes in magazines and on television—where cigarette ads have been banned since 1971—could undermine decades of efforts to deglamorize smoking.

E-cigarettes may be particularly appealing to young adults due to: celebrity endorsements and portrayals of e-cigarette use as rebellious, fashionable and fun; high-tech design; wide array of available flavors, including candy-and fruit-flavored cartridges; easy availability online and in shopping malls[[6]](#footnote-6); and decrease in price in recent years.

**Policy**

The Food and Drug Administration (FDA) has the authority to regulate e-cigarettes as tobacco products, but has yet to do so. They indicated that they would put forward a deeming regulation in October 2013, however no action has been taken to date. If and when the FDA acts, it is expected that regulations will be minimal and unlikely to address advertising and flavors.

E-cigarettes are largely unregulated in Oregon. The CDC does not recommend opening up the state ICAA to include e-cigarettes: this would make the ICAA vulnerable to tobacco companies’ efforts to weaken it. There may be some opportunity regulate e-cigarettes through the Oregon tax code as “other tobacco products,” but this may take quite some time. The E-cigarette lobby is pressuring legislators to either regulate them separately as vaping products—differentiating them and weakening opportunities to regulate them federally as tobacco products—or simply not to tax and regulate them at all.

In the absence of Federal and state regulation, several local health boards, universities, businesses, and state government have taken steps to protect Oregonians from e-cigarettes. In 2012, Governor Kitzhaber signed the Tobacco-Free Campus Executive Order prohibiting the use of tobacco products, including e-cigarettes, in state agency buildings and on state agency grounds. The University of Oregon included e-cigarettes as part of their recent tobacco-free campus policy. Lane Transit Authority does not allow riders to use e-cigarettes on buses. Fred Meyer has included electronic cigarettes as part of their no smoking policy. They don’t allow electronic cigarette use in their stores or where smoking is prohibited by state law. Starbucks included e-cigarettes as part of their tobacco free worksite policy.

There are local, regulatory policy efforts that can be effective and is something to consider.

The Tobacco Control Legal Consortium (TCLC) is a resource that can help local communities draft good e-cigarette policies. Funded by the CDC, the TCLC provides legal technical assistance on emerging tobacco issues at the state and local level. Following are some TCLC considerations for e-cigarettes at the local level.

**Coupons, Discounts, & Rebates**

Coupons and other price discounts for electronic cigarettes are utilized in the retail environment and discounted e-cigarettes are extensively promoted online. Local governments could consider restricting or prohibiting the retail redemption of coupons for tobacco products, including e-cigarettes and similar nicotine delivery systems, or restricting other price-related practices in the retail environment, such as payments from e-cigarette manufacturers and distributors to retailers resulting in price discounts; tobacco retailer incentive programs; and retail value-added deals (e.g., buy-one-get-one-free offers).

**Free Samples**

Under the Tobacco Control Act, tobacco manufacturers are restricted from distributing free samples of “cigarettes, smokeless tobacco or other tobacco products.”At present, this restriction does not apply to e-cigarettes. Local governments could prohibit the distribution of all free samples of tobacco products, including e-cigarettes and other nicotine delivery systems.

**Flavoring**

E-cigarette manufacturers can continue to market e-cigarette cartridges in a variety of candy-like flavors that appeal to youth (such as bubble gum, chocolate, and mint),and sell them at mall kiosks, where young people often congregate, as well as online, where safeguards against youth access can be breached more easily than in face-to-face purchases.

**Youth Access**

Local governments could consider passing stronger, more comprehensive youth access laws to prohibit the sale of e-cigarettes to minors, require these products to be kept behind the counter, allow them to be sold only in places adults are permitted to enter, or raise the minimum legal age to purchase them.

**Use Restrictions**

Many smoke-free laws define the act of “smoking” as inhaling or carrying a lighted tobacco or plant product intended for inhalation. E-cigarettes, which are not burned, but “vaped,” are generally not covered under these laws. Local governments could include e-cigarettes in their smoke- and tobacco-free restrictions by revising definitions of “smoking” or “tobacco products” to expressly cover e-cigarettes and other electronic nicotine delivery systems.

**Point-of-Sale Warnings, Marketing Restrictions, & Broad Sales Prohibitions**

No federal statute limits the authority of local or state governments to regulate the advertising and promotion of non-cigarette tobacco products. Local governments are able to warn consumers of the dangers of using electronic cigarettes, regulate the advertising or promotion of e-cigarettes, and regulate the sale of e-cigarettes without risking federal preemption concerns. Possible policy options include posting health warnings at the point-of-sale, imposing marketing restrictions, and prohibiting the sale of all electronic cigarettes. Although federal statutes should not pose a barrier for state and local policies restricting the sale and marketing of e-cigarettes, such laws will most certainly be challenged on the basis that they violate state or federal constitutional provisions related to free speech or interstate commerce.

1. U.S. Food and Drug Admin., FDA Warns of Health Risks Posed by E-Cigarettes (2009), available at <http://www.fda.gov/downloads/ForConsumers/ConsumerUpdates/UCM173430.pdf> [↑](#footnote-ref-1)
2. In 2009, the FDA released an analysis of 18 electronic cigarettes and found that half of the vapor samples “contained carcinogens, and that [one contained diethylene glycol](http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm173146.htm), a toxic chemical used in antifreeze.” [↑](#footnote-ref-2)
3. <http://tobaccocontrol.bmj.com/content/early/2013/03/05/tobaccocontrol-2012-050859.abstract>

<http://www.tobacco.ucsf.edu/10-chemicals-identified-so-far-e-cig-vapor-are-california-prop-65-list-carcinogens-and-reproductive> [↑](#footnote-ref-3)
4. ConsumerStyles, 2009-2010 data: <http://tobaccocontrol.bmj.com/content/22/1/19.abstract> [↑](#footnote-ref-4)
5. <http://www.ncbi.nlm.nih.gov/pubmed/23449421> [↑](#footnote-ref-5)
6. American Legacy Foundation. (2009). *Electronic Cigarettes (“E-cigarettes”).* [*http://www.legacyforhealth.org/PDFPublications/ECIGARETTE\_0909\_temp.pdf*](http://www.legacyforhealth.org/PDFPublications/ECIGARETTE_0909_temp.pdf) [↑](#footnote-ref-6)