SIPP Phase II: Vaping and Vapor Devices

Subcommittee Briefing and Discussion

July 1, 2015
Welcome and INTRODUCTIONS
Subcommittee and Staff

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Wendy Burchill, Healthy Communities Specialist
Jeff Hutchison, Environmental Health Supervisor
Today’s Briefing & Discussion

✓ Vapor Products & Vaping Industry
✓ Public Health Concerns & Research Findings
✓ Policy & Regulatory Update
✓ Stakeholder Engagement Process
An Overview of the VAPING INDUSTRY
How They Work

- LED lights up when the smoker draws on the cigarette
- Sensor detects when smoker takes a drag
- Heater vaporises nicotine
- Battery controls heater and light
- Cartridge holds nicotine dissolved in propylene glycol
Examples of Some National Brands
E-liquids Containing Nicotine
Disposable Marijuana E-joints
E-liquids Containing Marijuana
Vapor Product Industry Growth

- Current design invented in 2003
- Entered U.S. market ~ 2007
- Worldwide $3 billion industry and growing
  ~ 466 brands with ~ 7700 unique flavors
- U.S. sales doubled from $274 million in 2012 to $636 million in 2013
Vapor Products Sold By

✓ Convenience stores
✓ Tobacco stores
✓ Vapor product only stores
✓ Internet
✓ Some grocery stores
✓ Some drug stores
## Number of Snohomish County Retailers

<table>
<thead>
<tr>
<th>City</th>
<th>All Vapor Product Retailers</th>
<th>Vape Only Retailers (based on name)</th>
<th>Licensed Tobacco Retailers (likely to also sell vapor products)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everett</td>
<td>44</td>
<td>11</td>
<td>163</td>
</tr>
<tr>
<td>Lake Stevens</td>
<td>5</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Lynnwood</td>
<td>23</td>
<td>5</td>
<td>81</td>
</tr>
<tr>
<td>Marysville</td>
<td>6</td>
<td>1</td>
<td>51</td>
</tr>
<tr>
<td>Mukilteo</td>
<td>2</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Snohomish</td>
<td>3</td>
<td>1</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>83</strong></td>
<td><strong>20</strong></td>
<td><strong>363</strong></td>
</tr>
</tbody>
</table>

Vapor product retailers are not licensed as such, so this count is a rough snapshot in these cities. Marijuana retailers also sell THC e-cartridges for vapor devices.
Public Health Concerns and RESEARCH FINDINGS
Why is Public Health Concerned?

✓ Potential health effects from use and/or exposure, especially to most vulnerable

✓ Rapidly increasing use by teens and young adults

✓ Vaping other drugs in the devices

✓ High poisoning risk to children
Increasing Use of Vapor Products

All US Adults:

Ever used e-cigarette:
- 2010 – 1%
- 2013 – 13%

Currently using e-cigarette:
- 2010 – 0.3%
- 2013 – 6.8%

In 2013:
- 14.2% of 18-24 yr old are using e-cigs
- 8.6% of 25-44 yr olds are using e-cigs

High Schoolers Use of Tobacco Products

Using 1 product

Using 2 or more products

Non-smokers taking up Vaping

In 2013, more than a quarter million middle and high school students never smoked regular cigarettes but had used e-cigarettes...

3 times as many as 2011!

32% adult e-cigarette users that are former or never smokers (2013)
E-CIG USE BY TEENS IS RISING IN SNOHOMISH COUNTY

“Current use among middle and high school students tripled from 2013 to 2014.”

2014 National Youth Tobacco Survey
Population based studies find vaping is associated with lower odds of quitting smoking.

Vaping or dual use (vaping + smoking) may delay efforts to quit nicotine use.
Current Research Challenges

- Limited available peer-reviewed research
- No data on long-term health effects
- Not a standardized or regulated product
- Unclear harm reduction benefits
What’s In Them?

500+ brands
7,000+ flavors
0 regulations on ingredients

✓ Drugs
✓ Solvents
✓ Flavorings

E-LIQUID
combination of water, nicotine and other chemicals; loaded into the atomizer for vaping

NOT REGULATED BY THE FDA

Manufacturers don’t have to tell us what they put in the products, but we know most of them aren’t meant to be inhaled. Things like:

propylene glycol · benzene · lead · cadmium · nickel ·
Nicotine content of products vary.

Nicotine dose delivered often not as stated on product packaging:
- 0-35 µg nicotine per puff of vapor
- ~30 puffs to get the same nicotine as a cigarette

Secondhand vapor contains nicotine. Nonsmokers near vaping have nicotine in their blood.
Health Effects of Nicotine

NICOTINE IS A HARMFUL STIMULANT DRUG JUST AS ADDICTIVE AS HEROIN & COCAINE

10 SECONDS
how fast one puff of nicotine reaches the brain

Nicotine carries messages to the brain that affects your heart, respiration, memory & muscle movement

Adversely effects maternal and fetal health

No safe level of nicotine exposure for pregnant or breastfeeding women
Heating Vapor Product Solvents Creates Toxic Byproducts

Propylene glycol and glycerin are most common solvents
✓ Can be respiratory irritants
✓ Not tested for safety when vaped
✓ When heated, toxic carbonyl break-down products are created

<table>
<thead>
<tr>
<th>Toxic Byproducts</th>
<th>Lung Irritant</th>
<th>Other Toxicities</th>
<th>Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>X</td>
<td>X</td>
<td>Known</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>X</td>
<td>X</td>
<td>Probable</td>
</tr>
<tr>
<td>Acrolein</td>
<td>X</td>
<td>X</td>
<td>?</td>
</tr>
</tbody>
</table>
Metal Particles in Vapor

- Aluminum
- Cadmium
- Chromium
- Lead
- Nickel
- Tin
- and more...

Health Effects of Inhaling Flavorings?

“E-cigarette and flavor manufacturers and marketers should not represent or suggest that the flavor ingredients used in e-cigarettes are safe because they have FEMA GRAS™ status for use in food because such statements are false and misleading.”

- Flavor & Extract Manufacturers Association

Diacetyl – found in 69% of 159 sweet vapor products
Levels of Toxic Chemicals Found in Vapor

Lower levels than cigarettes
Higher levels than a nicotine inhaler

<table>
<thead>
<tr>
<th>Toxicant</th>
<th>Range in Content in Aerosol From 12 E-Cigarette Samples per 15 Puffs*</th>
<th>Range in Content in Conventional Cigarette Micrograms in Mainstream Smoke From 1 Cigarette</th>
<th>Content in Nicotine Inhaler Mist per 15 Puffs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde, µg</td>
<td>0.2–5.61</td>
<td>1.6–52</td>
<td>0.2</td>
</tr>
<tr>
<td>Acetaldehyde, µg</td>
<td>0.11–1.36</td>
<td>52–140</td>
<td>0.11</td>
</tr>
<tr>
<td>Acrolein, µg</td>
<td>0.07–4.19</td>
<td>2.4–62</td>
<td>ND</td>
</tr>
<tr>
<td>o-Methylbenzaldehyde, µg</td>
<td>0.13–0.71</td>
<td>...</td>
<td>0.07</td>
</tr>
<tr>
<td>Toluene, µg</td>
<td>ND–0.63</td>
<td>8.3–70</td>
<td>ND</td>
</tr>
<tr>
<td>p,m-xylene, µg</td>
<td>ND–0.2</td>
<td>...</td>
<td>ND</td>
</tr>
<tr>
<td>NNN, ng</td>
<td>ND–0.00043</td>
<td>0.0005–0.19</td>
<td>ND</td>
</tr>
<tr>
<td>NNK, ng</td>
<td>ND–0.00283</td>
<td>0.012–0.11</td>
<td>ND</td>
</tr>
<tr>
<td>Cadmium, ng</td>
<td>ND–0.022</td>
<td>...</td>
<td>0.003</td>
</tr>
<tr>
<td>Nickel, ng</td>
<td>0.011–0.029</td>
<td>...</td>
<td>0.019</td>
</tr>
<tr>
<td>Lead, ng</td>
<td>0.003–0.057</td>
<td>...</td>
<td>0.004</td>
</tr>
</tbody>
</table>

Prepared using data from Goniewicz et al.41 E-cigarette indicates electronic cigarette; and ND, not determined.
Ultrafine Particles Similar to Cigarette Smoke

Two vapor products – low and high nicotine

Conventional cigarette

Secondhand Vaping

Results of limited indoor air quality studies show vaping increases levels of:

✓ Nicotine
✓ Volatile organic compounds, including known carcinogens
✓ Metals
✓ Ultrafine particles
Poisoning Risks

1000% increase in calls related to e-cigarettes from 2012 to 2014

83% of calls to poison control in 2014 were for nicotine poisoning in kids 0-3 years
Poisonings from E-Juice
Warnings on Inhaling Vapor From Some Manufacturers

“Nicotine is addictive and habit forming, and it is very toxic by inhalation, in contact with the skin, or if swallowed.”

“Inhalation of this product may aggravate existing respiratory conditions.”

Not intended for use by “children, women who are pregnant or breast-feeding, or persons with a risk of heart disease, high blood pressure, diabetes, or taking medicine for depression or asthma.”
Discussion/Questions
Policy and Regulatory UPDATE
Vapor Products: Current Regulations

**Federal:** no vaping on airplanes (DOT policy)

**WA State:** no sales of nicotine vapor products to minors under 18 (2013)

**Snohomish County:**
- ✔ Vaping included in smoke free policy for all county facilities (April 2015)
- ✔ Voluntary “No Vaping” policies (e.g. Community Transit facilities, XFINITY Arena, most schools, and some businesses)
### Vapor Product Regulations: Federal

<table>
<thead>
<tr>
<th>Tobacco Products &amp; Smoking</th>
<th>Vapor Products &amp; Vaping</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDA oversight under Tobacco Control Act of 2009</td>
<td>None</td>
</tr>
<tr>
<td>- Premarket review</td>
<td></td>
</tr>
<tr>
<td>- Ingredient disclosure</td>
<td></td>
</tr>
<tr>
<td>- No flavorings, except menthol</td>
<td></td>
</tr>
<tr>
<td>Taxes on Cigarettes &amp; Other Tobacco Products</td>
<td>None</td>
</tr>
<tr>
<td>Strict Limits on Advertising &amp; Safety/Health Claims</td>
<td>None</td>
</tr>
<tr>
<td>Warning Labels Required</td>
<td>None</td>
</tr>
<tr>
<td>No Sales to Minors / No Free Samples</td>
<td>None</td>
</tr>
<tr>
<td>DOT: No use on airplanes</td>
<td>✔</td>
</tr>
</tbody>
</table>
Proposed FDA “Deeming Rule”*

✓ Product registration & pre-market review
✓ Ingredient disclosure
✓ Required warning labels
✓ Prohibit words like “light,” “low,” or “mild”
✓ Prohibit sales to minors
✓ Prohibit free samples
✓ Prohibit vending machine sales, except in 18+ venues

✗ Pertains only to products containing tobacco or nicotine
✗ Does not address flavorings targeted to youth
✗ Does not address use or ban vaping in public places
✗ Final rule will take years

* Draft Rule as of April 2014
Vaping Regs Expanding Around U.S.

42 states and 1 territory prohibit sales of e-cigarettes or vaping products to minors (18 or 19 years of age)

✓ 16 states have some type of restriction on public indoor use of vapor products

✓ 3 states (NJ, ND, and UT) prohibit vaping in all places where smoking is prohibited

350+ local laws in 31 states restrict vaping

✓ New York, Chicago, San Francisco, & Los Angeles have added vapor devices to existing smoke-free laws
Vapor Product Regulations: WA State

<table>
<thead>
<tr>
<th>Tobacco Products &amp; Smoking</th>
<th>Vapor Products &amp; Vaping</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Sales to Minors Under 18</td>
<td>✓</td>
</tr>
<tr>
<td>Taxes on Cigarettes &amp; Other Tobacco Products</td>
<td>None</td>
</tr>
<tr>
<td>Regulated by Liquor Control Board</td>
<td>None</td>
</tr>
<tr>
<td>▪ Distributors and Retailers Licensed with Fees</td>
<td>None</td>
</tr>
<tr>
<td>▪ Restrictions on Store Locations</td>
<td>None</td>
</tr>
<tr>
<td>Vending Machines Restricted</td>
<td>None</td>
</tr>
<tr>
<td>Sampling &amp; Coupons Restricted</td>
<td>None</td>
</tr>
<tr>
<td>No Use in Public Places, including workplaces, schools, transit (SIPP)</td>
<td>None</td>
</tr>
</tbody>
</table>
Pending State Legislation – for 2016?

House Bill 1645 (Governor’s Request)

- Targeted at preventing youth access to e-cigarettes and vaping products
- Licensing of distributors & retailers; No internet sales to consumers
- Requires child-proof packaging, warning labels, and ingredient disclosure
- Requires products behind counter and restricts sampling, coupons, and vending machines
- Prohibits possession by minors and use on school property

House Bill 2211  e-cigarette taxation at 45% of sales price
House Bill 1458  raise smoking/vaping age to 19

None address vaping in public places
Local Board of Health
Vaping in Public Places Laws
## Comparison of “No Vaping in Public Places” Laws

<table>
<thead>
<tr>
<th></th>
<th>King County</th>
<th>Pierce County</th>
<th>Grant County</th>
<th>Clark County</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year Passed</strong></td>
<td>2011</td>
<td>2011</td>
<td>2014</td>
<td>2015</td>
</tr>
</tbody>
</table>
| **Exceptions Where Vaping in Public Allowed** | None | • Adult-only venues  
• Private places of employment  
• Vapor product-only stores | • Vapor product-only stores that prohibit minors | • Vapor product-only stores with separate ventilation & other criteria |
| **ID Checks**        | Required    | Required      | Required     | Required     |
| **Vending Machines** | Allowed only where minors are prohibited | Allowed only where minors are prohibited | Allowed only where minors are prohibited | Allowed only where minors are prohibited |
| **Sales Restrictions** | No Sampling | No Sampling except in vape only stores | Vapor products behind counter | No Sampling except in vape only stores |
| **Signage Requirements** | None | None | “No Sales to Minors” | “No Vaping” and “No Sales to Minors” |
Smoking of any lighted or burning cigarette, pipe, cigar, hookah, or other smoking equipment using tobacco, flavored tobacco, or marijuana

Prohibited in all public places and places of employment, including:
• any building or vehicle open to the public or employees;
• outdoor venues connected to a business where employees work;
• within 25 feet of all doorways, entryways, windows, and ventilation intakes of public places and workplaces;
• membership-only clubs that have employees and/or allow guests;
• break rooms, parking garages and covered entryways; and
• no less than 75% of sleeping quarters in all hotels and motels.
Current SIPP Enforcement

✓ Violations reported by phone or e-mail
  ✓ First Complaint – Letter sent and site visit
  ✓ Second Complaint in 12 mos. – unannounced site visit by inspector
  ✓ Additional Complaints – can escalate to Health Officer’s Order

✓ Inspections are mostly education-focused
✓ While vaping is allowed, it’s difficult to know what is being vaped
Vaping Other Drugs

“The underlying reason people buy it is because of its design and because you can smoke it in public.”

– a bud-tender at Green Lady Marijuana in Olympia on JuJu Joints vape pens

(NY Times, Jan. 2015)
Discussion/Questions
Getting Stakeholder FEEDBACK
# Stakeholder Engagement Process

## June

- **June 9:**
  - BOH meeting
  - Briefing
  - Formed vaping subcommittee

## July

- **July 1**
  - Subcommittee Meeting #1
  - (no public comment taken)

- **July 6-31**
  - Preliminary Public Comment Period

- **July 21:**
  - Subcommittee Meeting #2
  - (Listening Session)

## August

- **Week of Aug. 10**
  - Subcommittee Meeting #3
  - (no public comment taken)

- **August 11:**
  - BOH meeting
  - Process update

## September

- **September 8:**
  - BOH meeting
  - Subcommittee report
  - Determine next steps
Vaping & Vapor Products

E-cigarettes and vaping products are not regulated the same way cigarettes are. This leads to public health concerns about potential exposure to the unknown mixture of chemicals in the vapor, as well as the rise in teens and young adults using a new type of addictive nicotine product. Amidst this growing popularity of electronic cigarettes and vaping, and rising ambiguity by business owners on whether it’s allowed in their establishments, the Snohomish Health District is evaluating options to prohibit vaping and vapor products in public places.

The Smoking in Public Places Law was passed in 2005, making Washington the 10th state in the country to implement a law prohibiting smoking in all restaurants and bars, as well as the 5th state to require that 100 percent of all indoor workplaces be smoke-free. In January 2015, the Health District created Chapter 13 of the local code, which clarified places of employment and that the law applied to marijuana and hookah smoking, as well as to cigarettes. However, neither of these laws address vaping or the use of vapor products in public.

INFOGRAPHIC: E-Cigarettes and Vaping: What You Should Know. (PDF)
Health officials considering ban of public 'vaping'

By Shari or Minter
 Herald Writer
@NMhealthbeat

Published: Monday, June 23, 2015 12:15 AM

SNOHOMISH -- The Snohomish Health District wants to hear from the public about a proposed ban on the use of electronic cigarettes in public places.

If approved, Snohomish County would join four other counties — King, Pierce, Thurston and Whatcom — in banning electronic cigarettes, or e-cigarettes, in public places.

The public comment period will run from July 6 to July 31. A public hearing will be announced later.

"Our goal is to look at the issues, the emerging science and how communities are and how we're responding to the growing public concern," Thomas said.

People have the right to vape, or use e-cigarettes, in their own homes, but the rest of the community needs to be protected in the rest of the county," Thomas added.

Washington voters approved a ban on smoking in public workplaces and bars and restaurants in 2006. The health district has considered the issue, Thomas said, "but nobody really wants to ban them. The consensus is we are just trying to be cool and wise.

To vape, or not to vape — in public — that's the question. Amidst the growing popularity of electronic cigarettes and vaping, and rising popularity of business owners on whether it's allowed in their establishments, the Snohomish Health District is evaluating options to prohibit vaping and vapor products in public places.

E-cigarettes and vaping products are not regulated the same way cigarettes are. This leads to public health concerns about potential exposure to the unknown mixture of chemicals in the vapor, as well as the rise in teens and young adults using this new type of tobacco product.

"This is not about telling someone what they can and can't do in private," said Dr. Greg Gaskill, health officer and director of the (Snohomish health District). "It's about protecting students in public school. We want to make sure the most vulnerable are protected. This includes our youth, pregnant women, and those with compromised health. That's our primary concern."

The Smoking in Public Places Law was passed in 2006, making Washington the 10th state in the country to implement a law prohibiting smoking in all restaurants and bars, as well as the first state to require that 100 percent of all indoor workplaces be smoke-free. In January 2015, the health district created Chapter 15 of the local code, which clarified places of employment and the law agreed to marijuana and hookah smoking, as well as e-cigarettes.

"We saw this review of vaping will help the Board of Health better understand the issues as it considers incorporating vaping into the smoking in public places law," Gaskill said. "We have been following the rapid increase in vaping, particularly among our youth, and we believe now is the right time to address use in public places.

At a June 9 board meeting, staff presented a draft update and a recommended timeframe for continuing to evaluate the issue.
Proposed Questions

✓ Do you support expanding the Smoking in Public Places to prohibit vaping?

✓ How would prohibiting vaping in public places impact you?

✓ What do you think should be included in the ordinance to be most effective in preventing youth from smoking and vaping?

✓ Are there any specific issues that you would like the Board of Health to evaluate while considering this regulation?
Welcome to the Vaping in Public Places Survey!

The Snohomish Health District is looking into policy options to help protect our residents from the potential risks of second-hand exposure to vaping products in public spaces. As we further evaluate the issue, we would like your input on the following four questions.

Powered by SurveyMonkey
Check out our sample surveys and create your own now!
Multiple Outreach Channels

- Press Release
- Social Media
- Email Lists
- Editorial(s)
- Postcards

Press Release

Social Media

Email Lists

Editorial(s)

Postcards

Share Your Thoughts on Vaping

The Snohomish Health District is looking into policy options to help protect our residents from the potential risks of second-hand exposure to vaping products in public spaces. As we further evaluate the issue, we would like your input on the following four questions:

1. Do you support expanding the Smoking in Public Places to prohibit vaping?
2. How would prohibiting vaping in public places impact you?
3. What do you think should be included in the ordinance to be most effective in preventing youth from smoking and vaping?
4. Are there any specific issues that you would like the Board of Health to evaluate while considering this regulation?

There are a number of ways to share your comments...

- Attend the public listening session
- Email us at sjpp@snhhd.org
- Scan the QR code to complete an online survey
- Visit our website at www.snohd.org for a link to the survey
- Mail your comments to:
  Snohomish Health District, Attn: SJPP Comments
  5020 Rucker Ave, Ste 306, Everett, WA 98201

Public Listening Session

We invite you to share your thoughts with the Vaping Subcommittee;

Tuesday, July 21st
11:00 a.m. to 1:00 p.m.
Wilderness Auditorium, Everett Community College
2000 Tower St., Everett, WA 98201
Stakeholder Groups to Engage

✓ Vaping Trade Groups & Local Vape Stores
✓ Businesses (Restaurants, Bars, Clubs)
✓ Local Governments
✓ Law Enforcement
✓ School Districts & Colleges
✓ Public Transit
✓ Health & Medical Organizations, Providers
✓ Substance Abuse Professionals
✓ Children/Youth Advocates
Discussion/Questions