The Triangulum: Tobacco, Marijuana and E-Cigarettes
The Future is Now!

Phillip S. Gardiner, Dr. P. H.
Policy and Regulatory Sciences Program Officer, Tobacco Related Disease Research Program (TRDRP) University of California Office of the President

Live Webcast
University of California San Francisco
Health Sciences West Auditorium, 301

Thursday, May 26, 2016
San Francisco, California
The Triangulum: Tobacco, Marijuana and E-Cigarettes

The Future is Now!
Triangulum Update

• Generated Much Enthusiasm
  – Over 1600 Registrants
  – Mainly US; 15% Canadian; 5% International
  – UCSF is in the House
  – Will be Posted on the TRDRP Website Next Week
The Triangulum: The Future is Now

- The intersection of tobacco, marijuana and e-cigarettes, the latter being the delivery device for these and other substances
  - Radically altering the “smoking” landscape
  - New nicotine addiction and other substances use devices for the 21st century
  - New forms of environmental pollution, both air and waste
  - Potentially reduced and/or heightened harm
The Evolving “Smoking” Landscape

- Hookah pens aerosolizing flavored liquids, with and without nicotine
- Heat-not-burn products that produce an aerosol, but no fire or smoke
- Colorfully packaged, flavored little cigars and cigarillos, both regular and electronic
- Butane derived THC, that you dab
- E-cig-a-likes, Tanks and Mods
Co-Mingling

• **Blunts**
  – Hollowed out cigars filled with marijuana

• **Caviar**
  – Adding crack cocaine or crystal meth to blunts

• **Roll Your Own**
  – Spliffs

• **Mix Your Own**
  – Cocktails (assorted e-liquids, favors and nicotine)
Blunts: Hollowed-out Cigars Filled with Marijuana
Spliffs
Flavored Cigarillos
E-Cigars

- Swisher Sweets E-cigars (Swisher International)
E-Pens and E-Hookah Pens

- Cherry, Chocolate, Vanilla, Bubble Gum
Dabbing

• Dabbing: Inhaling the vapors from a concentrated form of marijuana made by an extracting THC using butane gas

• Dabs, also known as butane hash oil (BHO) — "budder," "honeycomb" or "earwax"
THC Concentrate (BHO)
Dabbing
E-Cigarettes are Sooo Last Year!

Enter: Heat not Burn
The IQOS Heating System
Marlboro Heatstick
Heat not Burn
Platform 2

- Platform 2
Reynolds Revo
Heat not Burn
Youth Using E-Cigarettes More than Regular Cigarettes

- **8th Grade:** 9% e-cigarette, 4% regular cigarettes
- **10th Grade:** 16% e-cigarette, 7% regular cigarettes
- **12th Grade:** 17% e-cigarette, 14% regular cigarettes

(MTF, 2014)
Prevalence of exclusive cigarette or cigar use, exclusive marijuana use, and any cigarette, cigar, or marijuana use (MMWR, 2015) (High School)
Nearly 4000 high school students in Connecticut completed an anonymous survey—27% who have used both marijuana and e-cigarettes reported using e-cigarette aerosolizers to vaporize cannabis including hash oil, and wax THC. (Morean et al., 2015)
Hookah Use on the Rise Among Youth

HIGH SCHOOL STUDENTS REPORTING HOOKAH SMOKING (past year)

Data Source: University of Michigan, Monitoring the Future Study
# Racial & Ethnic Difference

([http://ntr.oxfordjournals.org/content/early/2016/01/12/ntr.ntw008.full.pdf+html](http://ntr.oxfordjournals.org/content/early/2016/01/12/ntr.ntw008.full.pdf+html))

<table>
<thead>
<tr>
<th>Tobacco-use pattern</th>
<th>Cigarettes only</th>
<th>Combustible only (other than cig)</th>
<th>Non-combustible</th>
<th>Dual only</th>
<th>Poly-tobacco only</th>
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<tbody>
<tr>
<td></td>
<td>N</td>
<td>%   (95% CI)</td>
<td>N</td>
<td>%   (95% CI)</td>
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<tr>
<td><strong>Total</strong></td>
<td>466</td>
<td>14.9 (13.3-16.7)</td>
<td>849</td>
<td>26.7 (24.2-29.3)</td>
<td>329</td>
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<td><strong>Race/Ethnicity</strong></td>
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<td>Non-Hispanic White</td>
<td>265</td>
<td>15.8 (13.6-18.3)</td>
<td>332</td>
<td>19.7 (16.9-22.7)</td>
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<td>Non-Hispanic Black</td>
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<td>11.1 (7.2-16.7)</td>
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<td>50.9 (44.1-57.6)</td>
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<td>Hispanic</td>
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<td>15.2 (11.9-19.3)</td>
<td>241</td>
<td>28.6 (25.2-32.4)</td>
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<td>Non-Hispanic Asian</td>
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<td>12.1 (4.4-29.3)</td>
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<td>38.9 (22.5-58.3)</td>
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<td>American Native</td>
<td>10</td>
<td>9.9 (4.7-19.4)</td>
<td>16</td>
<td>19.4 (11.3-31.3)</td>
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</table>
Purpose and Goals

• Outline the changing and evolving smoking environment of the 21st century
• Describe and compare secondhand and thirdhand smoke and aerosol exposure
• Identify harm associated with hookah use
• Identify who are using these new devices with old and new substances; the rise of dual and poly use
• Describe adverse effects of tobacco and marijuana co-use
• Begin the discussion about what all this means for tobacco-related research and the tobacco control movement
Webcast Format

• 25 minute presentations with a 10 minute break following Dr. Choi’s presentation

• Q and A after all presentations are done

• Questions and comments will alternate between the on site audience and webcast attendees; questions can be submitted at: TRDRPLIVEWEBCAST@ucop.edu at any time

• Please keep comments to under 2 minutes
Suzaynn Schick, Ph.D., University of California San Francisco

"Secondhand and Thirdhand Exposure to Smoke and Vapor"
Mary Rezk-Hanna, N.P., Ph.D. University of California Los Angeles
"Hookah Smoking: Known Health Effects and Associated Substances"
Kelvin Choi, Ph.D., National Institute of Minority Health and Health Disparities

"The Epidemiology of Poly Substance Use Among Youth and Adults"
Susan Weiss, Ph.D., National Institute of Drug Abuse

“Adverse Effects of Marijuana: What We Know and What We Need to Know About its Combination with Other Substances, Including Tobacco”
Discussant: Kenneth Warner, Ph.D., University of Michigan

"The End Game or a New Game; What Does This All Mean for Tobacco Control"
Moderator: Phillip Gardiner, Dr. P.H., University of California Office of the President, Tobacco Related Disease Research Program

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