

# **The Triangulum: Tobacco, Marijuana and E- Cigarettes**

## **The Future is Now!**

**Phillip S. Gardiner, Dr. P. H.**

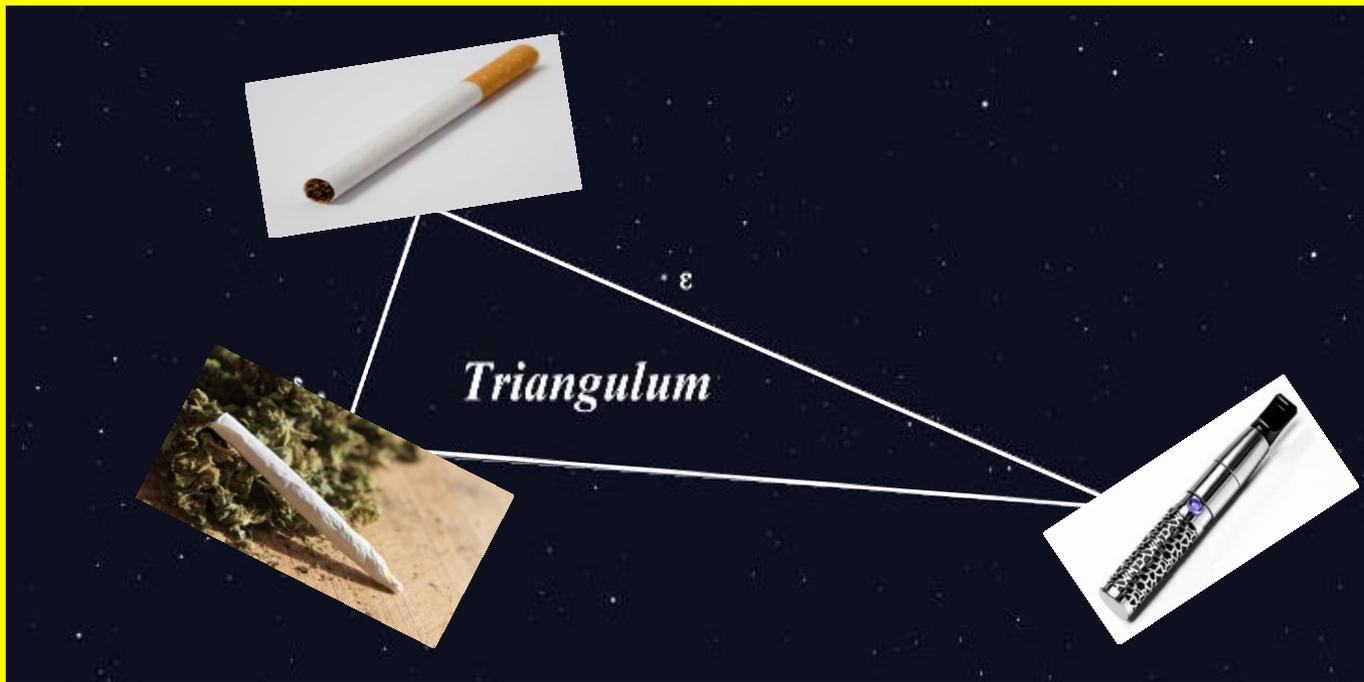
Policy and Regulatory Sciences Program Officer, Tobacco Related  
Disease Research Program (TRDRP) University of California  
Office of the President

*Live Webcast*

*University of California San Francisco  
Health Sciences West Auditorium, 301*

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# 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 21<sup>st</sup> 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

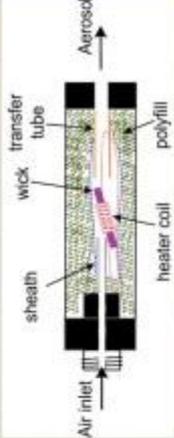


# Spliffs



# Flavored Cigarillos





A



B



C



# 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



© Associated Press Photo

# Marlboro Heatstick Heat not Burn



# Platform 2

- Platform 2



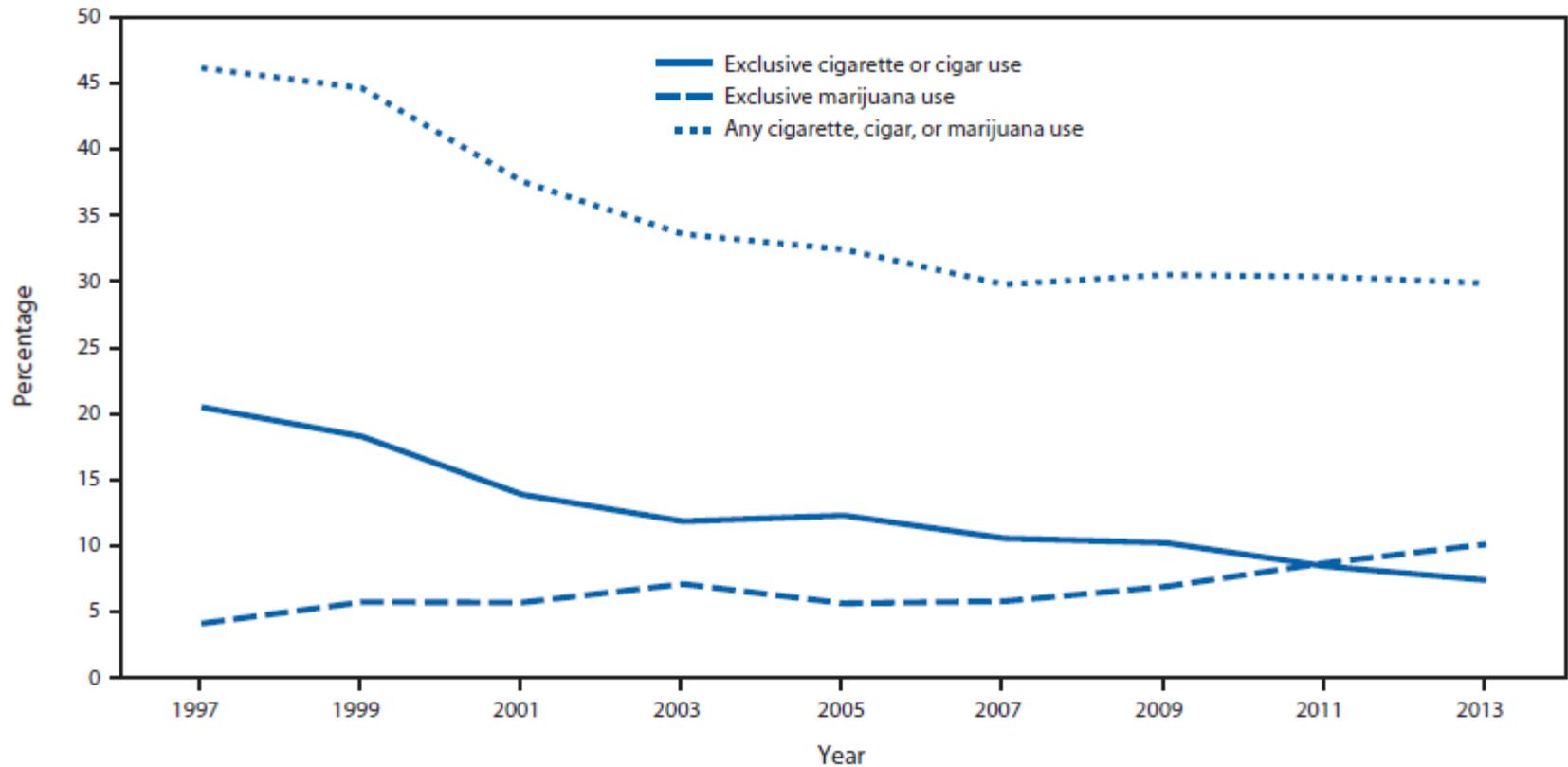
# Reynolds Revo Heat not Burn



# Youth Using E-Cigarettes More than Regular Cigarettes

- **8<sup>th</sup> Grade:** 9% e-cigarette, 4% regular cigarettes
- **10<sup>th</sup> Grade:** 16% e-cigarette, 7% regular cigarettes
- **12<sup>th</sup>-Grade:** 17% e-cigarette, 14% regular cigarettes (MTF, 2014)

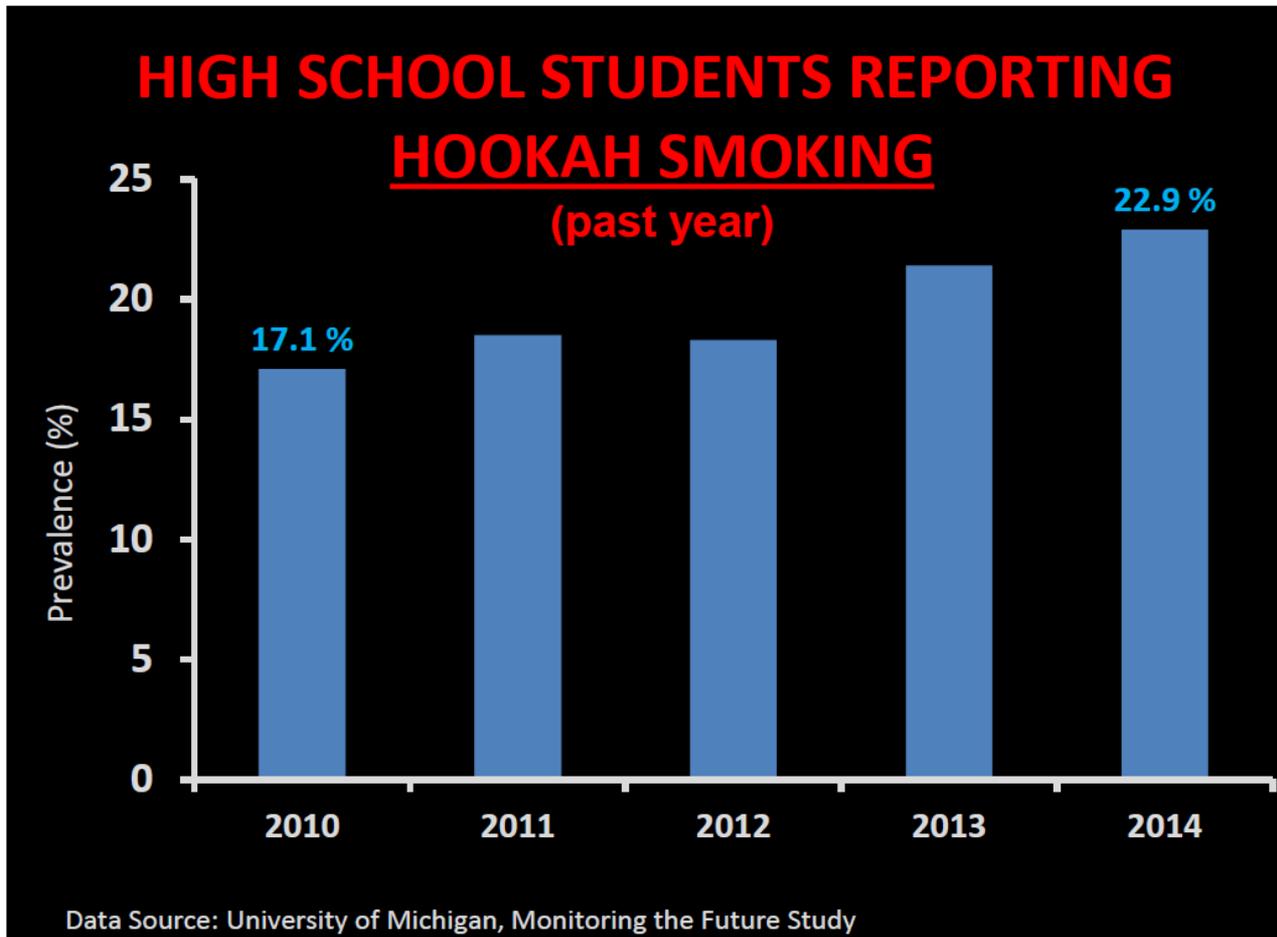
# Prevalence of exclusive cigarette or cigar use, exclusive marijuana use, and any cigarette, cigar, or marijuana use (MMWR, 2015) (High School)



# High School Students' Use of Electronic Cigarettes to Vaporize Cannabis

- 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



# Racial & Ethnic Difference

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

Tobacco-use pattern	Cigarettes only		Combustible only (other than cig)		Non-combustible		Dual only		Poly-tobacco only	
	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
<b>Total</b>	466	14.9 (13.3-16.7)	849	26.7 (24.2-29.3)	329	10.4 (8.4-12.9)	992	30.5 (28.1-32.9)	566	17.5 (15.3-19.9)
<b>Race/Ethnicity</b>										
Non-Hispanic White	265	15.8 (13.6-18.3)	332	19.7 (16.9-22.7)	227	13.2 (10.3-16.7)	556	32.3 (29.5-35.3)	328	19.0 (16.2-22.3)
Non-Hispanic Black	48	11.1 (7.2-16.7)	216	50.9 (44.1-57.6)	25	6.4 (3.4-11.6)	110	26.9 (22.4-31.9)	24	4.8 (2.7-8.2)
Hispanic	119	15.2 (11.9-19.3)	241	28.6 (25.2-32.4)	56	6.6 (4.8-8.9)	248	28.1 (24.2-32.4)	168	21.4 (18.7-24.5)
Non-Hispanic Asian	8	12.1 (4.4-29.3)	24	38.9 (22.5-58.3)	5	8.5 (3.0-21.7)	18	26.4 (13.6-44.8)	7	14.1 (7.2-25.6)
American Native	10	9.9 (4.7-19.4)	16	19.4 (11.3-31.3)	8	8.5 (4.1-16.8)	34	37.3 (27.1-48.7)	23	25.0 (15.2-38.2)

# Purpose and Goals

- Outline the changing and evolving smoking environment of the 21<sup>st</sup> 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

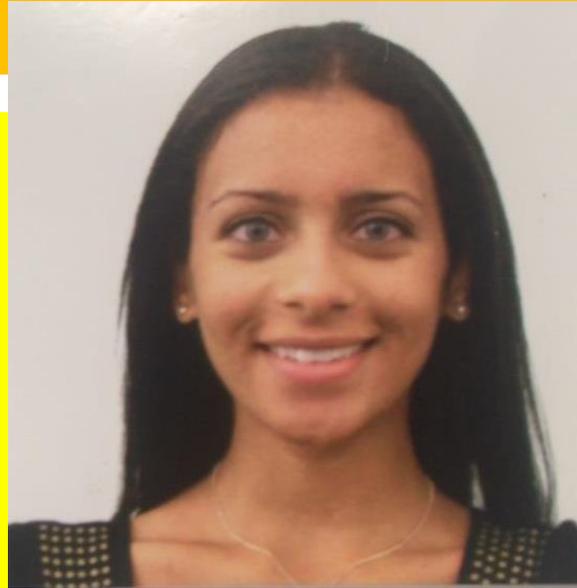
# Webcast Format

- 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](mailto: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"*



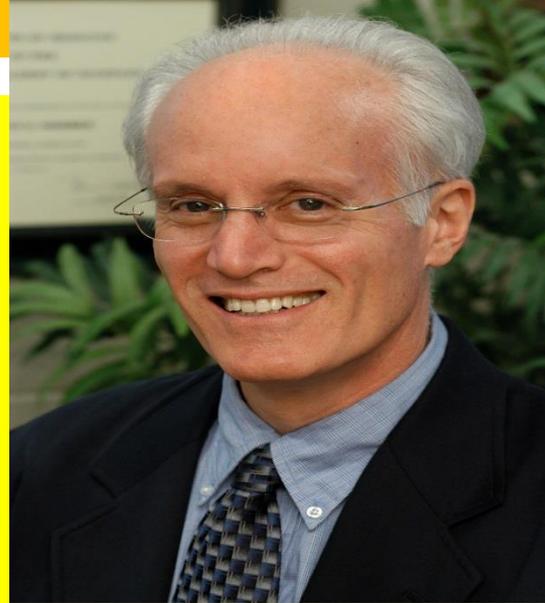
**Kelvin Choi, Ph.D., National Institute of Minority  
Health and Health Disparities**

*"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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