

# “E-Cigarettes: Panacea or Peril?”

*Special guest speaker:*

Michael P. Eriksen, ScD

Dean, School of Public Health

Georgia State University

# Today's Moderator



## **Cheryl L. Perry, PhD**

Professor & Regional Dean

The Rockwell Distinguished Chair in Society and Health

The University of Texas School of Public Health

Austin Regional Campus

Today's webinar will be recorded and  
available online next week at

[msdcenter.org](http://msdcenter.org)

# Today's Guest



**Michael P. Eriksen, ScD**

Dean, School of Public Health  
Georgia State University

# E-Cigarettes: Panacea or Peril?

Michael & Susan Dell Center for Healthy Living  
October 28, 2015

Michael P. Eriksen, ScD  
Dean, School of Public Health  
Georgia State University

# Disclosures

## Funding Sources

- NIH/NIMHD (P20MD004806)
- NIDA (P50DA036128)
- Pfizer, Inc. (Diffusion of Tobacco Control Fundamentals in Large Chinese Cities)

## Disclaimer

Research reported in this presentation was supported by NIDA and FDA Center for Tobacco Products (CTP). The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH or the Food and Drug Administration.

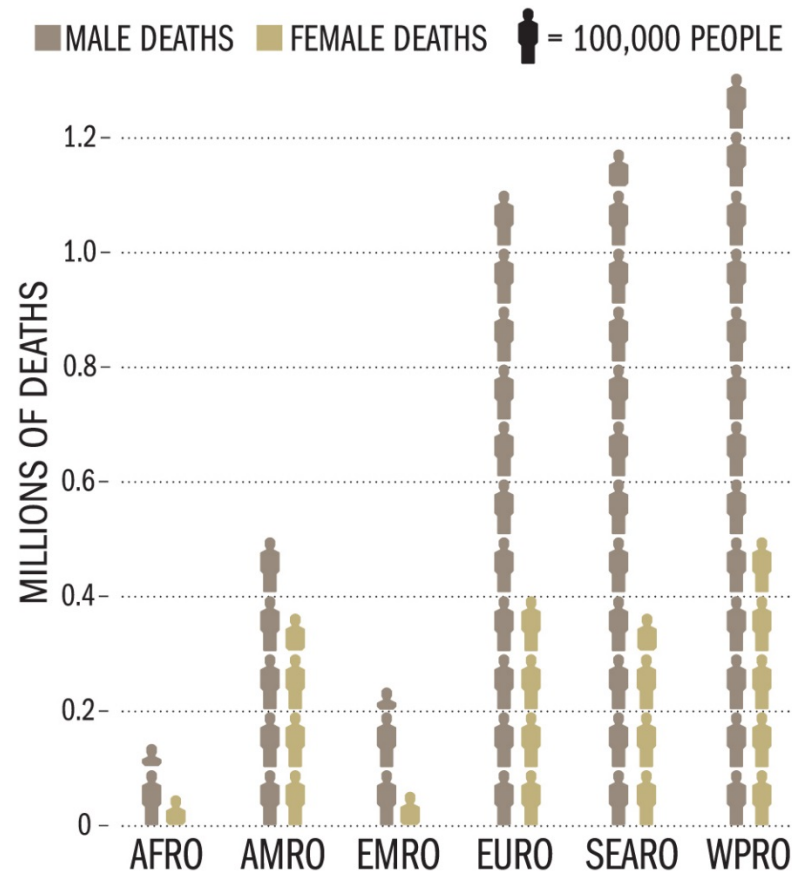
## Acknowledgements

Cathy Kemp, MHA; Rachel Lawley, MPH MBA; Ban Majeed, PhD; Pratibha Nayak, PhD; Amy Nyman, MA; Terry Pechacek, PhD; Pam Redmon, MPH; Scott Weaver, PhD

## Webinar Objectives

- Recognize that tobacco use is the world's leading preventable cause of death.
- Understand that most of the harm caused by tobacco is due to combustion (smoke)
- Realize that e-cigarettes could play an important role by increasing cessation among individual smokers.
- Differentiate between the possible benefit that e-cigarettes may have to individual smokers compared to the potential harm to population health.
- Acknowledge the need for effective regulatory action to optimize individual benefit and minimize population harm.
- Guide health professionals on how to discuss e-cigarettes with smokers.

## Globally, tobacco use is the largest preventable cause of death (6.3 million deaths annually)



Source: [tobaccoatlas.org](http://tobaccoatlas.org)

The majority of harm from tobacco occurs as a result of smoke –  
a product of combustion



**HEALTHY  
HUMAN LUNG**

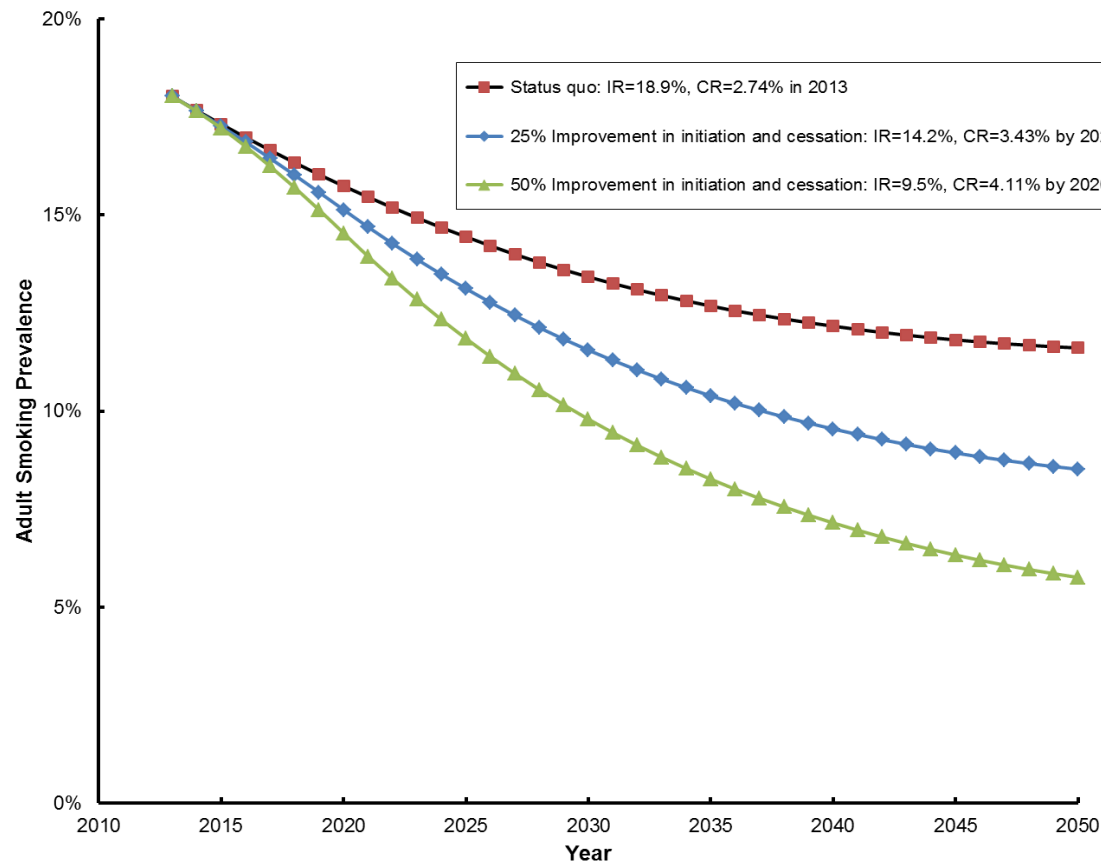


**TOBACCO  
SMOKER'S LUNG**

*Source: [tobaccoatlas.org](http://tobaccoatlas.org)*



## Current tobacco control strategies won't result in single-digit smoking prevalence. We need to disrupt the status quo



Unpublished Data: Mendez and Warner, University of Michigan School of Public Health

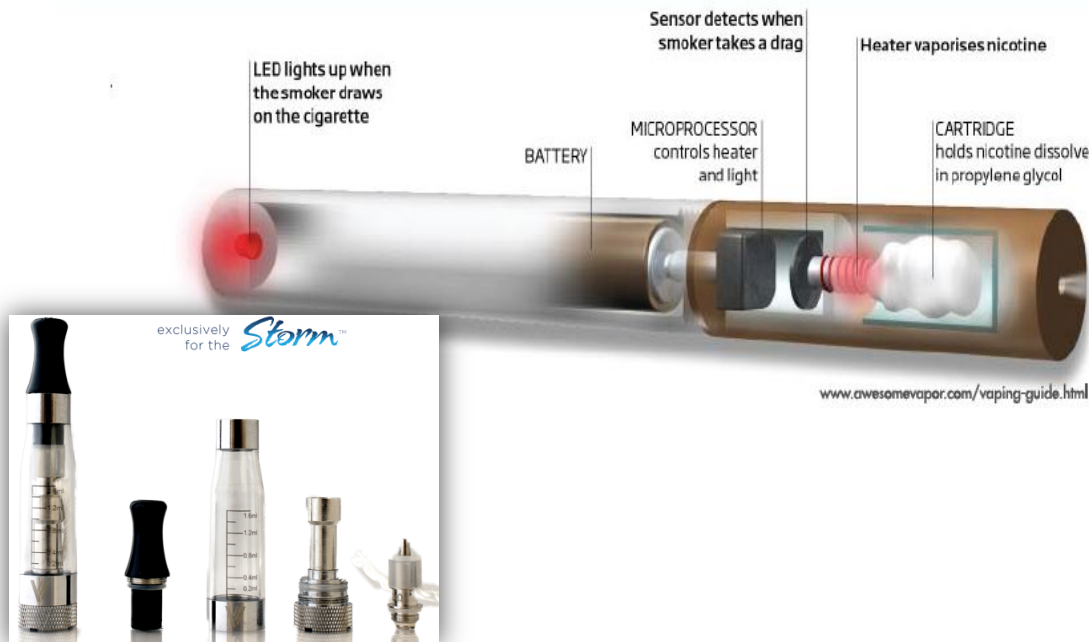
## Can novel nicotine products serve as a disruptive technology and advance public health?



Sources: MarkTen® Markten.com; VUSE® from Vusewapor.com; Blu® from blucigs.com; Orbs from the evolvment.org; Hookah from hookashisha.org; all other images from Wikimedia Commons

E-cigs and tank systems (ENDS) heat liquid nicotine and create a vapor rather than burn tobacco and create smoke... Thus, fewer toxins

## MECHANICS OF AN ELECTRONIC CIGARETTE



## Will ENDS be a panacea or peril?

### *From an individual perspective...*

- Smoking combusted cigarettes is the single greatest cause of death in the world.
- Current tobacco control methods will not achieve public health objectives.
- Properly regulated, e-cigs have the potential of providing nicotine at a much lower level of harm.

### *From a population perspective...*

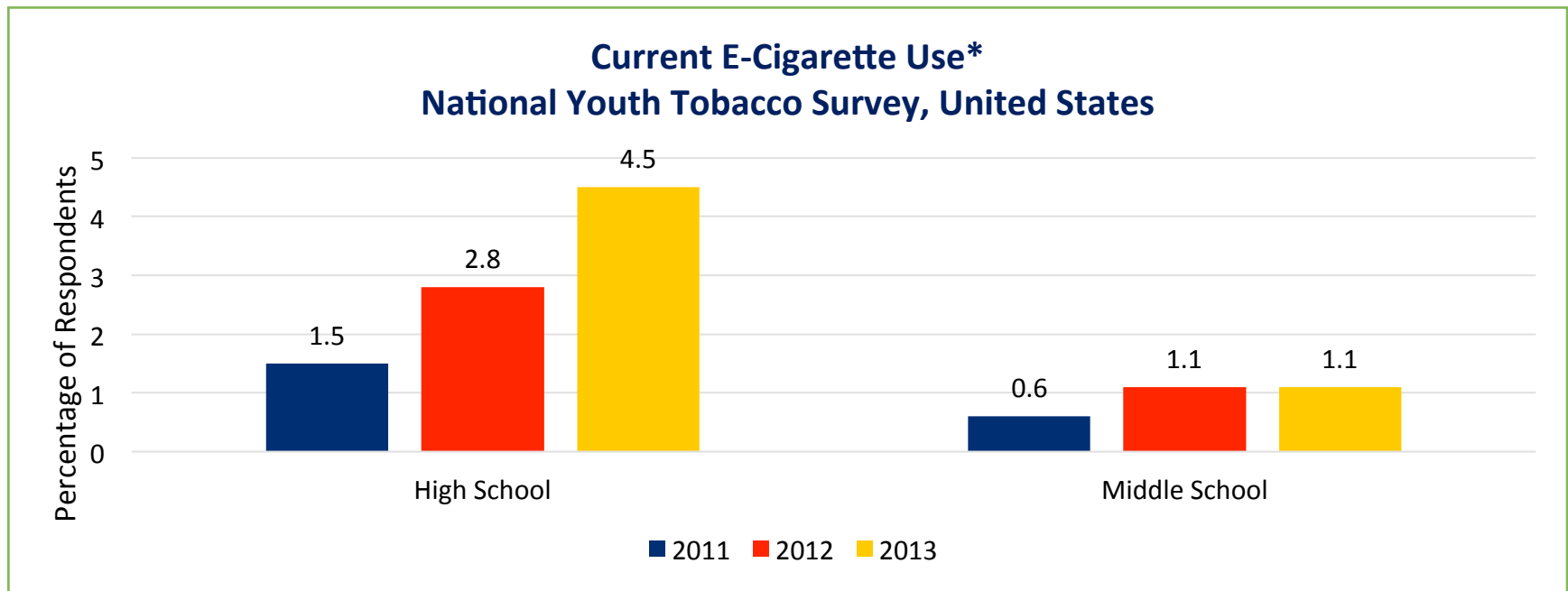
E-cigarettes could -

- Increase youth initiation
- Promote dual use
- Delay cessation
- Provide different health risks
- Entice former smokers back to nicotine
- Re-normalize smoking
- Continue addiction
- Set back progress from establishing health promoting social norms

## Teens and E-cigarettes



## Current e-cigarette use among high school students tripled between 2011 and 2013



\* Current use is defined as use on one or more days in the last 30 days

**Sources:** Centers for Disease Control and Prevention. Notes from the Field: Electronic Cigarette Use Among Middle and High School Students — United States, 2011–2012. *Morbidity & Mortality Weekly Report*. 2013;62(35):729-730 and unpublished data.

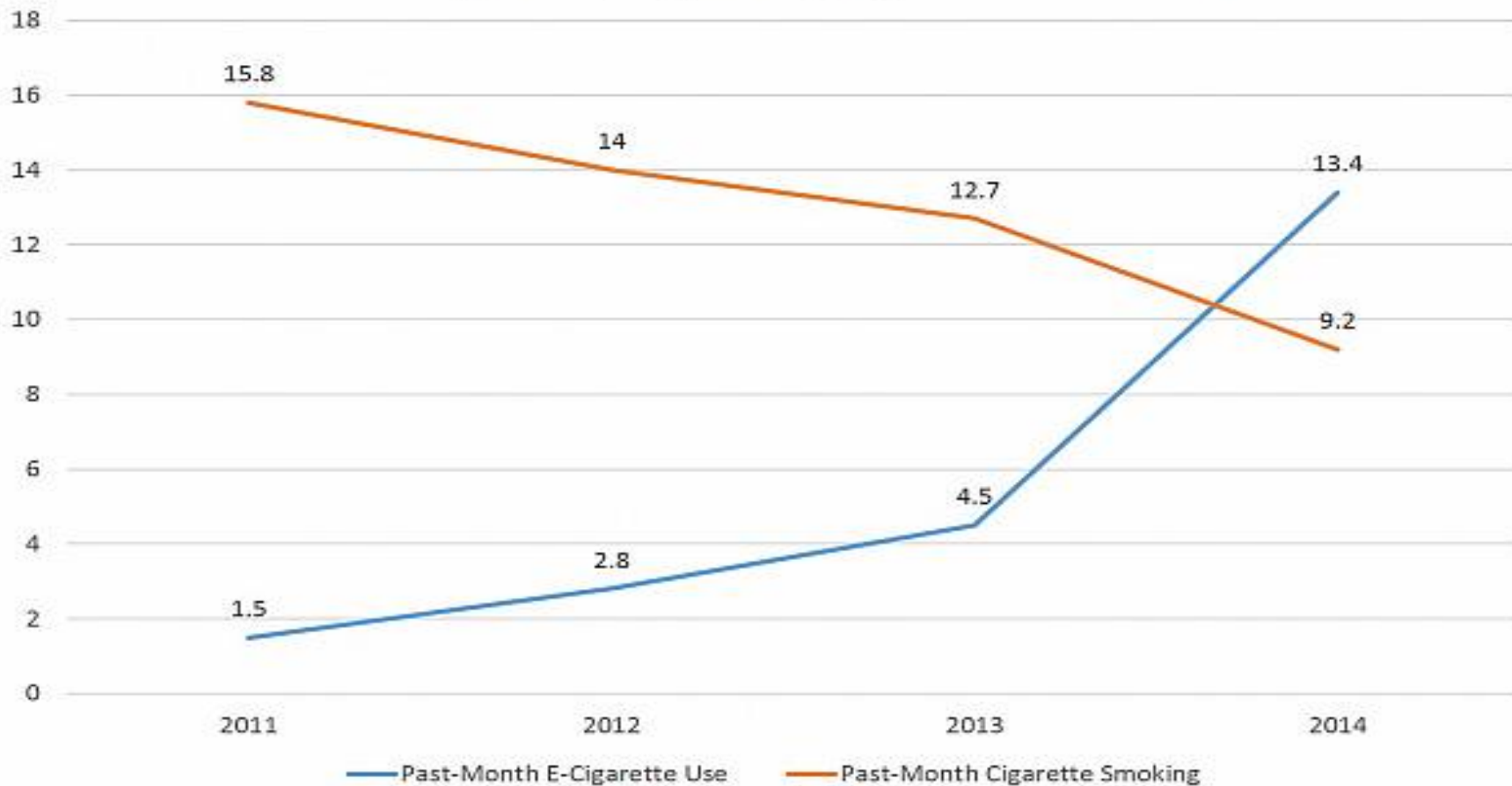
## E-cigarette use among never smoking youth

- From 2011-2013, the number of never smoking youth who used an e-cigs increased three-fold
- In 2013, over 250,000 never smoking youth used e-cigarettes
- Intention to smoke cigarettes was higher among e-cigarette users

Source: Bunnell, Agaku, Arrazola, Apelberg, Caraballo, Corey, Coleman, Dube, and King. Intentions to smoke cigarettes among never-smoking U.S. middle and high school electronic cigarette users, National Youth Tobacco Survey, 2011-2013 Nicotine Tob Res. Epub ahead of print.



### Smoking and Vaping Among High School Students





## Unintended consequences of ENDS: Youth use

Nearly half of U.S. students using tobacco use multiple products, especially e-cigarettes.

More than  
**4.6 million**  
students reported being  
current tobacco users.

(use of tobacco product(s)  
within the past 30 days.)

1 in 4 high school students



1 in 13 middle school students



Of the current tobacco users,

**2.2 million**  
students



reported being current users of **two or more types** of tobacco products.

Of the current tobacco users,  
**2.4 million**  
students reported  
using e-cigarettes.



For the first time in NYTS, **e-cigarettes** were the most commonly used tobacco product among students, followed by hookah (1.6 million), cigarettes (1.6 million), and cigars (1.4 million).

# The Washington Post

The e-cigarette **quandary**: helping smokers quit while enticing new addicts. The e-cigarette **dilemma**

“E-cigarettes pose a public policy **conundrum**. They are a gateway drug — but it’s not, or hasn’t been, entirely clear in which direction most traffic through that gateway flows.”

Ruth Marcus, September 5, 2014

## U.S. Preventive Services Task Force Recommendation on ENDS for Smoking Cessation

- Thus far, the U.S. Preventive Services Task Force (USPSTF) has made the strongest stance about ENDS
- In September 2015, the USPSTF “found the evidence on ENDS use as a smoking cessation tool in adults or adolescents to be insufficient.”
- The USPSTF was only able to identify two randomized, controlled trials that evaluated the effect of e-cigarettes on smoking abstinence in adults. These two studies found mixed results.

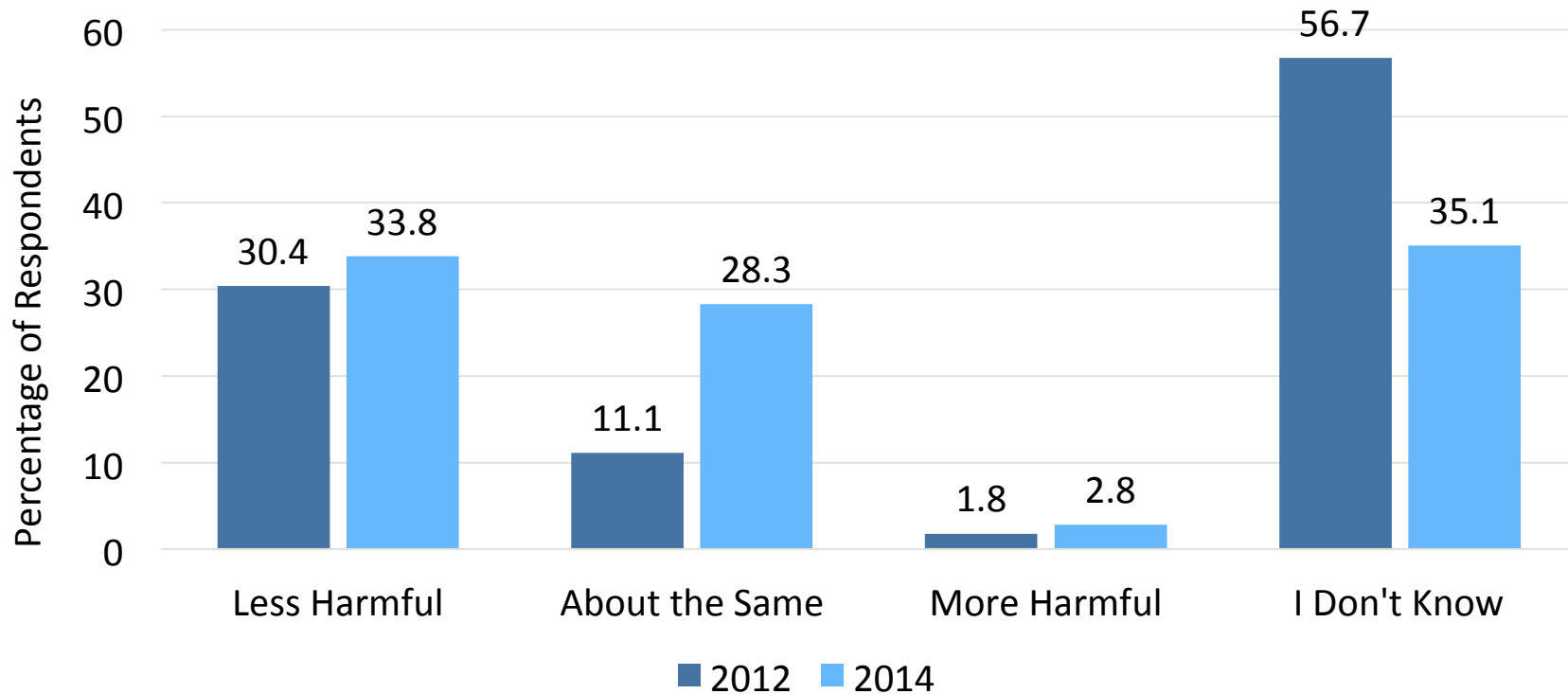


## ENDS climate in UK: A strong stance has been taken

- Public Health England published a report in August 2015 stating that “The current best estimate is that e-cigarette use is around 95% less harmful to health than smoking.”
- E-cigarette companies quickly capitalized on this finding, using the statistic in the front window of e-cigarette shops.
- Some criticize that the report is based on expert opinion (multi-criteria decision analysis) rather than empirical evidence.



## Perception of relative harm of e-cigarettes among US adults, 2012-2014



1. Unpublished results of data from the 2012 HealthStyle survey

2. Unpublished results of data from the 2014 Tobacco Products and Risk Perceptions Survey conducted by the Georgia State University Tobacco Center of Regulatory Science (TCORS)

# Cigarette





## Unintended consequences of ENDS: Vaping used for recreation, not cessation

- E-cigarettes are the source of a new sport, called Cloud Chasing, where vapers try and blow the most vapor.



Photo Credit:  
David Becker/Reuters



## Public health concerns about ENDS marketing

- E-cigarette advertising grew twelve-fold in two years (from \$6.4 million in 2011 to over \$80 million in 2013).
- E-cigarette advertising is completely unregulated and “anything goes.”
- Much e-cigarette marketing resembles tobacco advertisements of the past, and this is a concern to public health. Like traditional cigarette marketing, e-cigarette marketing uses:
  - Rugged men and beautiful women
  - Sex appeal
  - Unsubstantiated health claims
  - Famous spokespersons
  - Cartoons
- Current e-cig marketing is appealing to young people and has the potential to re-normalize smoking.

No one under 42 years of age in the U.S. has ever seen an ad for a tobacco product on television... until now



[blu E-Cigarettes Video with Jenny McCarthy \(click for video\)](#)

"Responsible e-cigarette manufacturers,  
including blu ecigs, do not market to youth."

Lorillard to FDA (10/23/13)



Let's see what "responsible" marketing really looks like to e-cig companies...

Jenny McCarthy as spokesperson for blu eCigs.



blu™ electronic  
cigarettes...

“freedom  
to have a cigarette  
without the guilt.”

— Jenny McCarthy

Click Here To  Watch The Video

[blucigs.com](http://blucigs.com)

## Examples of “responsible” marketing...



*Sports Illustrated swim suit edition (February, 2014)*

## Some companies use e-cigs as “nutritional” supplements: Lose weight, have more energy and better sleep!

Nutri-Cigs as the “first and only” fortified e-cigarettes.

The advertisement features a central image of a smiling woman with blonde hair, wearing a white top, holding a yellow e-cigarette to her ear. To her left, the text reads "NutriCigs SLEEP" and "SAY GOOD-BYE TO SLEEPLESS NIGHTS". Below this is a single e-cigarette with a white filter and a gold band. To the right of the woman is an orange button that says "TRY NOW". On the far right, three e-cigarette packs are stacked vertically: "NutriCigs SLEEP", "NutriCigs ENERGY", and "NutriCigs SLIM". The website "nutricigs.com" is printed at the bottom right.

## Unintended consequences of ENDS: Entice former smokers to return to nicotine

There are 53 million former smokers in the U.S. and they are being enticed to try e-cigs, as exemplified by FIN's "Welcome Back" campaign.

"Though the primary message is that people can smoke e-cigarettes indoors, FIN's choice of a diner from the 1950s – a time when smoking was perfectly acceptable – is the ad's booster engine, a subtle but powerful underlying sell that runs on pure nostalgia."

-Adweek, May 2012



## Circumvent smokefree laws

The image shows a screenshot of the elitensmoke website banner. The banner features a woman wearing sunglasses and smoking a cigarette. The text on the banner reads: "BEAT THE SMOKING BANS... EXPERIENCE THE FREEDOM... WITH ELITENSMOKE ELECTRONIC CIGARETTES." Below the main text, there is a "Learn More" button. The website navigation menu includes: HOME, STARTER KITS, FLAVOR CARTRIDGES, ACCESSORIES, HOW IT WORKS, and CONTACT. The banner also includes a "Featured Products" section with a grid of product images.

elitensmoke

HOME STARTER KITS FLAVOR CARTRIDGES ACCESSORIES HOW IT WORKS CONTACT

BEAT THE SMOKING BANS...  
EXPERIENCE THE FREEDOM...  
WITH ELITENSMOKE ELECTRONIC CIGARETTES.

Learn More >

Featured Products



# Regulation can occur at each stage of the tobacco life-cycle and this regulation should include ENDS



Source: [tobaccoatlas.org](http://tobaccoatlas.org)

## Federal ENDS Regulation: Waiting for the FDA to act

- In 2009, President Obama signed the Tobacco Control Act.
- In 2011, the FDA announced its intention to regulate all tobacco products, including e-cigarettes.
- In 2014, the FDA issued a proposed rule for extending their regulatory authority over all tobacco products (deeming).
- In April 2015, Health and Human Services Secretary set a goal of June 2015 for issuing a final ruling.
- On October 19, 2015, FDA submitted the final rule to OMB for approval

E-cigarettes are unregulated in the U.S. and are a source of confusion among health professionals, health educators, public health, researchers, government officials, and consumers alike.

## Role of state and local laws in regulating e-cigarettes

- Since the FDA has not acted on e-cigarettes, states and local governments have imposed their own regulations, in some instances.
- As of July 2015, at least 170 municipalities and three states stated that e-cigarettes cannot be used in smokefree environments.
- Health professionals have the potential to play a strong role in advocating that e-cigarette use to be banned in smokefree areas. This can be done at the local level and will likely be more effective than focusing exclusively on federal policy change.



## Action Steps: What needs to happen?

- Create a regulatory scheme that favors exclusive use of non-combusted nicotine products over traditional cigarettes.
- Gradually reduce nicotine levels in cigarettes to non-addictive levels.
- Avoid unintended consequences
  - Youth initiation
  - Dual use (unless limited dual use helps with cessation)
  - Former smokers returning to nicotine
  - Re-normalization of smoking
  - Use of e-cigs for delivery of illicit drugs
- Work to eliminate any type of addiction, including addiction to nicotine.
- Include as part of broader health promotion strategy.

## Establish strategic nicotine regulatory framework focused on complete transition from combustion

### Use all policy levers to achieve transition from combustion, including:

- Provide evidence-based and affordable cessation services
- Allow responsible ENDS marketing consistent with evidence (as with NRT)
- Establish differential tax policy to discourage combusted products ([NEJM](#))
- Allow non-harmful flavors as necessary
- Limit nicotine content and other product standards that would make combustible cigarettes less addicting and attractive
- Establish progressively more restrictive time, place, and manner of sales of combustible cigarettes, particularly at the state and local level
- Assure policy levers do not erode successful tobacco control strategies, particularly clean indoor air laws.

## Potential Health Impact of ENDS

*“The promotion of electronic cigarettes and other innovative tobacco products is much more likely to be beneficial in an environment where the appeal, accessibility, promotion, and use of cigarettes are being rapidly reduced”*



## Health education efforts directed toward smokers

*As the popularity of ENDS increases, more smokers are thinking about quitting:*

- Capitalize on this unprecedented interest in quitting and communicate the best information available to guide informed decision making.
- Communicate that there are proven and effective methods to stop smoking (e.g., NRT, counseling, Chantix). If these methods haven't worked for a particular smoker, he/she may want to consider ENDS.
- Emphasize that there is little evidence about the efficacy or unintended consequences of ENDS. And, while there may be unknown harms from ENDS, it is certainly less harmful than continued smoking.
- Advise smokers to avoid dual use and that ENDS should only be used for a finite period of time, rather than as a permanent replacement product for smoking.
- Strike the proper balance between possible individual benefit (smokers quitting), against possible population harm (kids starting & dual use).
- Use the public discourse on ENDS to further discourage smoking and advance other tobacco control policies.

## Thank You! Questions?



[www.publichealth.gsu.edu](http://www.publichealth.gsu.edu)