

**MEMORANDUM**

November 21, 2014

TO: County Council

FROM: Amanda Mihill, Legislative Attorney *amihill*

SUBJECT: **Introduction:** Bill 56-14, Health and Sanitation – Smoking – Electronic Cigarettes

Bill 56-14, Health and Sanitation – Smoking – Electronic Cigarettes, sponsored by Councilmember Floreen, Council Vice President Leventhal, and Councilmembers Branson and Navarro, is scheduled to be introduced on November 25, 2014. A public hearing is tentatively scheduled for January 22, 2015 at 7:30 p.m.

Bill 56-14 would:

- prohibit the use of electronic cigarettes in public places where traditional tobacco smoking is prohibited;
- restrict the sale of certain liquid nicotine or liquid nicotine containers in retail outlets unless the nicotine is in a container considered child resistant packaging;
- prohibit the sale of electronic cigarettes in any place that is accessible to buyers of the product without the intervention of the seller (similar to tobacco products); and
- generally amend County law regarding smoking, electronic cigarettes, and health and sanitation.

**Background**

Before the introduction of Bill 56-14, the Health and Human Services Committee met twice on the issue of electronic cigarettes. All the materials from those worksessions are not reproduced in this packet, but can be found at the following links:

- July 21: [http://www.montgomerycountymd.gov/council/Resources/Files/agenda/cm/2014/140721/20140721\\_HHS1.pdf](http://www.montgomerycountymd.gov/council/Resources/Files/agenda/cm/2014/140721/20140721_HHS1.pdf)
- September 18: [http://www.montgomerycountymd.gov/council/Resources/Files/agenda/cm/2014/140918/20140918\\_HHS1.pdf](http://www.montgomerycountymd.gov/council/Resources/Files/agenda/cm/2014/140918/20140918_HHS1.pdf)

At the July 21 worksession, the Committee received briefings from the National Institutes of Health and the Legal Resource Center for Public Health Policy on electronic cigarettes. These briefings included a discussion of the current medical understanding of the health risks and

public policy concerns with electronic cigarette usage. The presentation from Dr. Walton and Dr. Boone from the National Institute on Drug Abuse is on ©10. After the briefings, Committee members expressed specific concerns about the use of electronic cigarettes by minors and directed staff to provide options to restricting youth access to electronic smoking devices. Committee members discussed these options, including a prior draft of Councilmember Floreen's bill, at its September 18 worksession. Also at its September 18 worksession, Committee members received a briefing from the Department of Liquor Control's Licensing and Regulatory Enforcement staff on its program to identify entities that are selling tobacco to minors.

This packet contains:

Bill 56-14

Legislative Request Report

Presentation from National Institute on Drug Abuse

Circle #

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F:\LAW\BILLS\1456 Electronic Cigarettes\Intro Memo.Doc

Bill No. 56-14  
Concerning: Health and Sanitation –  
Smoking – Electronic Cigarettes  
Revised: 9/9/2014 Draft No. 4  
Introduced: November 25, 2014  
Expires: May 25, 2016  
Enacted: \_\_\_\_\_  
Executive: \_\_\_\_\_  
Effective: \_\_\_\_\_  
Sunset Date: None  
Ch. \_\_\_\_\_, Laws of Mont. Co. \_\_\_\_\_

## **COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND**

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By: Councilmember Floreen, Council Vice President Leventhal, and  
Councilmembers Branson and Navarro

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**AN ACT** to:

- (1) prohibit the use of electronic cigarettes in certain public places;
- (2) restrict the sale of certain liquid nicotine or liquid nicotine containers in retail outlets unless the nicotine is in a container considered child resistant packaging;
- (3) restrict the accessibility of certain tobacco products in retail settings, and require retail sellers of those products to take certain actions;
- (4) prohibit the use of electronic cigarettes by minors; and
- (5) generally amend County law regarding smoking, electronic cigarettes, and health and sanitation.

By amending

Montgomery County Code  
Chapter 24, Health and Sanitation  
Section 24-9

By adding

Chapter 24, Health and Sanitation  
Sections 24-13 and 24-14

By renumbering

Chapter 24, Health and Sanitation  
Sections 24-2, 24-3, 24-4, 24-5, 24-6, 24-7, 24-8, 24-9B, 24-9C, 24-9D, 24-10, 24-11,  
24-11A

By repealing

Chapter 24, Health and Sanitation  
Section 24-9A

By renaming

Chapter 24, Health and Sanitation  
Article II

<b>Boldface</b>	<i>Heading or defined term.</i>
<u>Underlining</u>	<i>Added to existing law by original bill.</i>
<b>[Single boldface brackets]</b>	<i>Deleted from existing law by original bill.</i>
<u>Double underlining</u>	<i>Added by amendment.</i>
<b>[[Double boldface brackets]]</b>	<i>Deleted from existing law or the bill by amendment.</i>
* * *	<i>Existing law unaffected by bill.</i>

*The County Council for Montgomery County, Maryland approves the following Act:*



**Sec. 1. Sections 24-2, 24-3, 24-4, 24-5, 24-6, 24-7, 24-8, 24-10, 24-11, and 24-11A are renumbered as follows:**

**24-2, 24-3. [Reserved.]**

**24-[4]2. Communicable diseases generally — Warning signs.**

\* \* \*

**24-[5]3. [Same] Communicable diseases — Unauthorized removal of warning signs.**

\* \* \*

**24-[6]4. [Same] Communicable diseases — Control in food establishments.**

\* \* \*

**24-[7]5. Use of certain shoe-fitting devices or machines prohibited.**

\* \* \*

**24-[8]6. Commitment of chronic alcoholics.**

\* \* \*

**24-[10]7. Catastrophic health insurance plan.**

\* \* \*

**24-[11]8. Massage.**

\* \* \*

**24-[11A]8A. Fitness centers — defibrillators.**

\* \* \*

**Sec. 2. Article II is renamed; Section 24-9 is amended; Section 24-9A is repealed; Sections 24-9B, 24-9C, and 24-9D are renumbered; and Section 24-13 is added as follows:**

**Article II. [Reserved] Smoking, Tobacco, and Nicotine.**

**24-9. Smoking and using electronic cigarettes in public places.**

(a) Definitions. In this [Section] Article, the following words and phrases have the meanings indicated:

\* \* \*

Electronic cigarette means an electronic device that delivers vapor for inhalation, including any refill, cartridge, or any other component of an electronic cigarette. Electronic cigarette does not include any product approved by the Food and Drug Administration for sale as a drug or medical device.

\* \* \*

Smoking or smoke means the act of lighting, smoking, or carrying a lighted or smoldering cigar, cigarette, or pipe, of any kind.

\* \* \*

Vape shop means any store that primarily sells electronic cigarettes. Vape shop does not include an area of a larger store in which electronic cigarettes are sold.

- (b) Smoking and using an electronic cigarette are prohibited in certain public places. A person must not smoke or use any electronic cigarette in or on any:

\* \* \*

- (c) Exceptions. Smoking or using an electronic cigarette is not prohibited by this Section:

- (1) In a tobacco shop or a vape shop;

\* \* \*

- (3) When smoking or using an electronic cigarette is necessary to the conduct of scientific research into the health effects of tobacco smoke and is conducted at an analytical or educational laboratory;

\* \* \*

- (d) Notwithstanding paragraph (b)(11), the Director of the Department of Health and Human Services may designate an outside area on

property that is owned or leased by the County where smoking or using an electronic cigarette is allowed if the Director finds that a complete prohibition on that property would impede a program's mission or effective delivery of services.

(e) *Posting signs.*

(1) Except as provided in paragraph (e)(4), signs prohibiting or permitting smoking or using an electronic cigarette, as the case may be, must be posted conspicuously at each entrance to a public place covered by this Section.

(2) Where smoking or using an electronic cigarette is prohibited by this Section, the sign either must read "No smoking or using an electronic cigarette by order of Montgomery County Code § 24-9. Enforced by (department designated by the County Executive)" or be a performance-oriented sign such as "No Smoking or Using an Electronic Cigarette" or "This is a Smoke Free Establishment." The international no-smoking symbol may replace the words "No smoking."

\* \* \*

(f) *Duty to prevent smoking in certain areas.* The owner or person in control of a building or area covered by this Section must refuse to serve or seat any person who smokes where smoking or using an electronic cigarette is prohibited, and must ask the person to leave the building or area if the person continues to smoke after proper warning.

\* \* \*

(k) *Enforcement and penalties.*

(1) Any violation of this [Section] Article is a class C civil violation. Each day a violation exists is a separate offense.

(2) The County Attorney or any affected party may file an action in a court with jurisdiction to enjoin repeated violations of the Section.

(3) The County Executive must designate by Executive order one or more County departments or agencies to enforce this Article.

(4) The Director of the Department of Health and Human Services may suspend a license issued under Chapter 15 for up to 3 days if the Director finds, under the procedures of Section 15-16, that the operator of an eating and drinking establishment has knowingly and repeatedly violated any provision of this Section.

[24-9A. Reserved.]

**24-[9B]10. Availability of tobacco products to minors.**

\* \* \*

**24-[9C]11. Distribution of tobacco products to minors.**

\* \* \*

**24-[9D]12. Tobacco and electronic cigarette [Products – Placement] products = placement.**

(a) Placement. A retail seller of any tobacco or electronic cigarette product must not display or store the product in any place that is accessible to buyers of the product without the intervention of the seller or an employee of the seller.

(b) Definitions. *Tobacco product* means any substance containing tobacco, including cigarette, cigars, smoking tobacco, snuff, or smokeless tobacco.

(c) Applicability. This Section does not apply to:

(1) the sale of any tobacco or electronic cigarette product from a vending machine that complies with all requirements of state law; and

(2) any store where only or primarily tobacco or electronic cigarette products are sold.

[(d) Enforcement. The County Executive must designate by Executive order one or more County departments or agencies to enforce this Section.]

[24-12. Reserved.]

**24-13. [Reserved] Use of electronic cigarettes by minors prohibited.**

A person under 18 years old must not use an electronic cigarette.

**24-14. Child Resistant Packaging of Liquid Nicotine Container Required.**

(a) Definitions. In this Section, the following words have the meanings indicated:

Child resistant packaging means packaging that is:

(1) designed or constructed to be significantly difficult for children under 5 years of age to open or obtain a toxic or harmful amount of the substance contained therein within a reasonable time; and

(2) not difficult for normal adults to use properly.

Child resistant packaging does not mean packaging which all such children cannot open or obtain a toxic or harmful amount within a reasonable time.

Liquid nicotine container means a container that is used to hold liquid containing nicotine in any concentration.

(b) Child resistant packaging required. A retail seller of any liquid nicotine or liquid nicotine container must not sell, resell, distribute, dispense, or give away:

(1) any liquid or gel substance containing nicotine unless the substance is in child resistant packaging; or

(2) any nicotine liquid container unless the container constitutes child resistant packaging.

(c) Exceptions. This Section does not apply to a liquid nicotine container that is sold, marketed, or intended for use in an electronic cigarette if the container is prefilled and sealed by the manufacturer and not intended to be opened by the consumer.

**24-[12]15-24-21. Reserved.**

*Approved:*

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Craig L. Rice, President, County Council

Date

*Approved:*

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Isiah Leggett, County Executive

Date

*This is a correct copy of Council action.*

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Linda M. Lauer, Clerk of the Council

Date

## LEGISLATIVE REQUEST REPORT

Bill 56-14

*Health and Sanitation – Smoking – Electronic Cigarettes*

<b>DESCRIPTION:</b>	Bill 56-14 would prohibit the use of electronic cigarettes in public places where traditional tobacco smoking is prohibited; restrict the sale of certain liquid nicotine or liquid nicotine containers in retail outlets unless the nicotine is in a container considered child resistant packaging; prohibit the sale of electronic cigarettes in any place that is accessible to buyers of the product without the intervention of the seller (similar to tobacco products); and prohibit the use of electronic cigarettes by minors.
<b>PROBLEM:</b>	Electronic cigarettes are not currently regulated by the FDA or the state. Many youth could perceive electronic cigarettes as less harmful than traditional tobacco smoking. Current statistics show that e-Cigarette use by high school students increased from less than 5% to almost 10% from 2011 to 2012 and that reasons students gave for using e-Cigarettes include: curiosity, attraction of flavors, use by friends and family, desire to quit smoking, availability, and it is a sign of independence.
<b>GOALS AND OBJECTIVES:</b>	In part, to protect the health of minors by restricting the use and availability of electronic cigarettes to minors.
<b>COORDINATION:</b>	Health and Human Services
<b>FISCAL IMPACT:</b>	To be requested.
<b>ECONOMIC IMPACT:</b>	To be requested.
<b>EVALUATION:</b>	To be requested.
<b>EXPERIENCE ELSEWHERE:</b>	To be researched.
<b>SOURCE OF INFORMATION:</b>	Amanda Mihill, Legislative Attorney, 240-777-7815
<b>APPLICATION WITHIN MUNICIPALITIES:</b>	To be researched.
<b>PENALTIES:</b>	Class C violation.

# **Electronic Cigarettes: An Overview**

**Presentation to  
Montgomery County Council**

**July 21, 2014**

**Kevin Walton, PhD**

Division of Pharmacotherapies and Medical Consequences of Drug Abuse

**Ericka Boone, PhD**

Office of Science Policy and Communications

**National Institute on Drug Abuse, NIH**



National Institute  
on Drug Abuse



# Conventional Tobacco Use in the U.S.

- Associated morbidity and mortality
  - 480,000 Americans die each year from smoking ( $\approx 1$  in 5 deaths)
  - 16 million suffer from tobacco-related illnesses
- Economic cost: nearly **\$300B** annually
  - \$133B in direct medical care
  - \$156B in lost productivity
- 18.1% of all U.S. adults smoke (42% in 1965)

## However, in the past year

- 68.9% of adult smokers wanted to stop smoking
- 42.7% of adult smokers made a quit attempt



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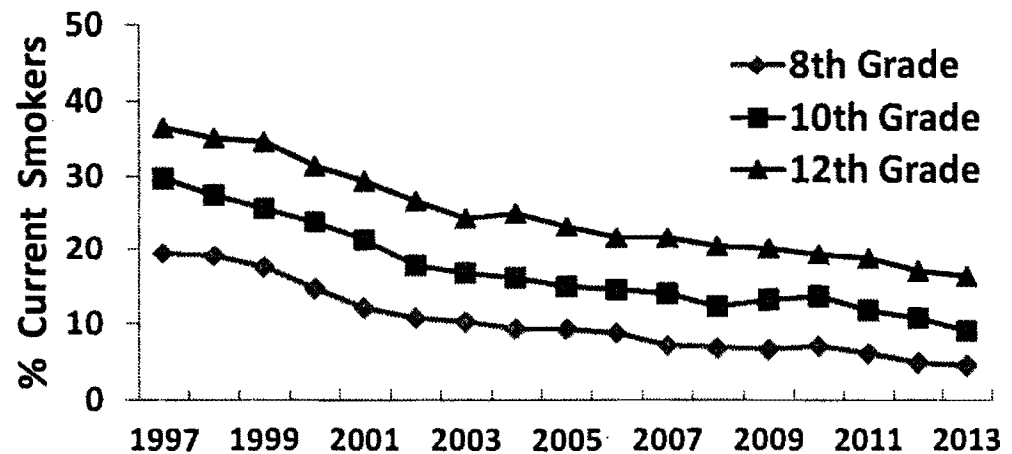
Source: HHS, The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General.

# Youth Smoking Continues as a Concern

- 90% of smokers begin while in their teens or earlier
- 14% of high school students (grades 9–12) smoke
- Use of multiple tobacco products is common
- With current trends, 6 million teens alive today will die from smoking-related diseases

## However...

- The percent of teens who are current smokers\* has been declining for more than a decade



Source: HHS, Preventing Tobacco Use Among Youth and Young Adults, A Report of the Surgeon General, 2012  
CDC, MMWR 62(No. 45), November 15, 2013; Johnston, MTF National Results on Drug Use:1975-2013

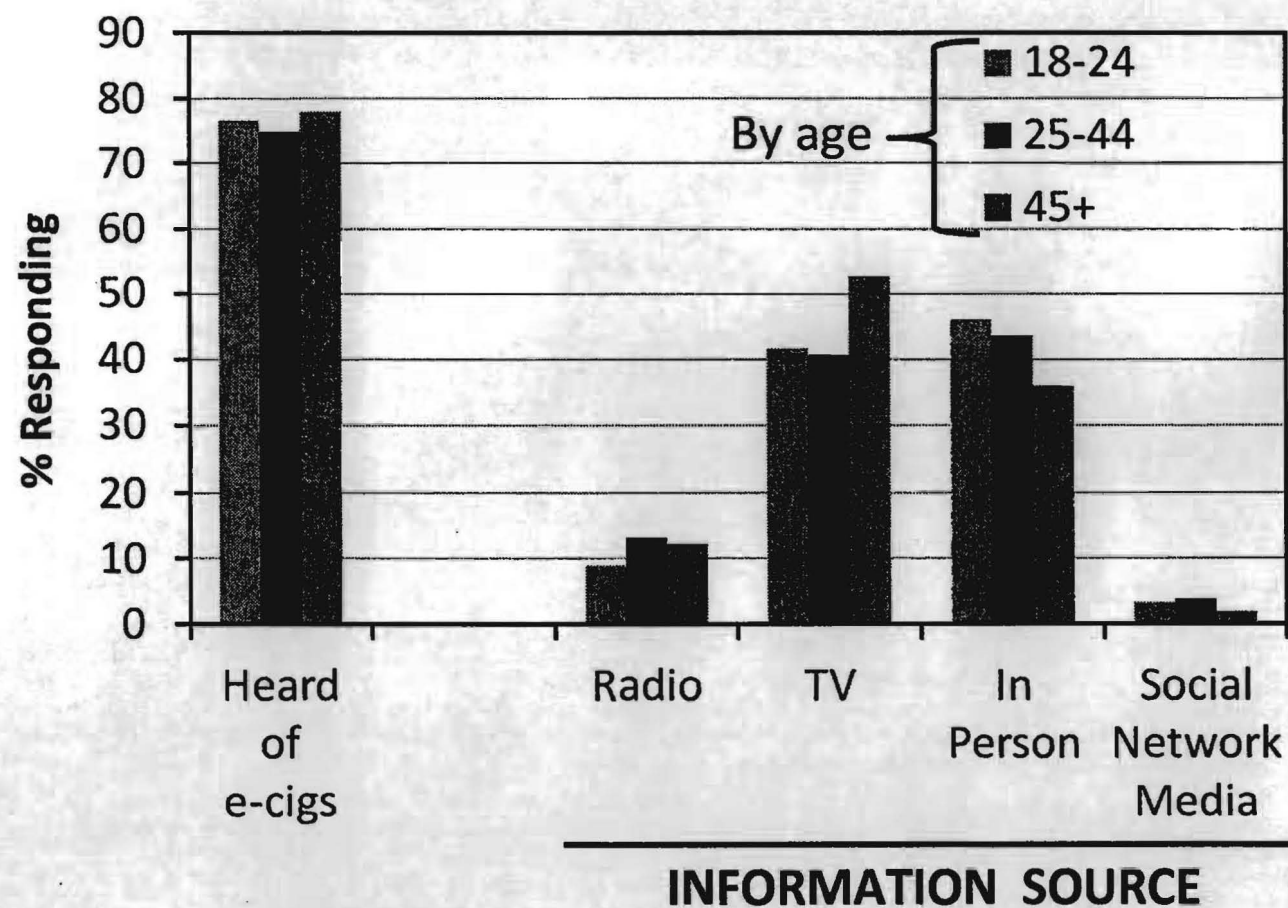
# Electronic Cigarette (E-cigarette) History

- An e-cigarette is a smokeless nicotine delivery device
  - E-cigarettes can also contain no nicotine, just producing a flavored aerosol (vapor)
- First introduced in China in 2003
- Available in the U.S. since 2007
- Made by U.S. tobacco companies and independent non-conventional-tobacco companies
  - Lorillard (blu), Reynolds American (Vuse), Altria (MarkTen)
  - Independent large players include NJOY and Logic
- Over 250 e-cigarette brands in the U.S.
- E-cigarette use has doubled every year since 2010
- Estimated to be **greater than \$1.5B industry**



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# Most People Are Aware of Electronic Cigarettes

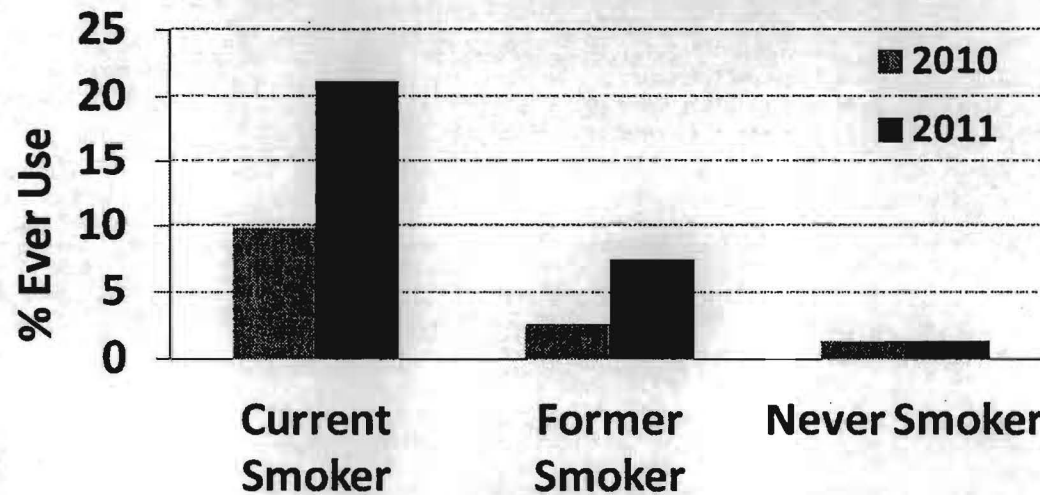


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Source: Zhu et al, 2013

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# Adult Use of Electronic Cigarettes Primarily by Current Smokers



≈80% of current users  
report dual use with  
conventional  
cigarettes

- **Health reasons primary motivator for e-cigarette use**
  - Believe less harmful than conventional cigarettes
  - Desire to cut down and/or quit conventional cigarettes
  - Help with reducing cravings and withdrawal symptoms
  - Want to prevent relapse to conventional cigarettes
  - Don't want to disturb others with smoke or for use in smoke-free places

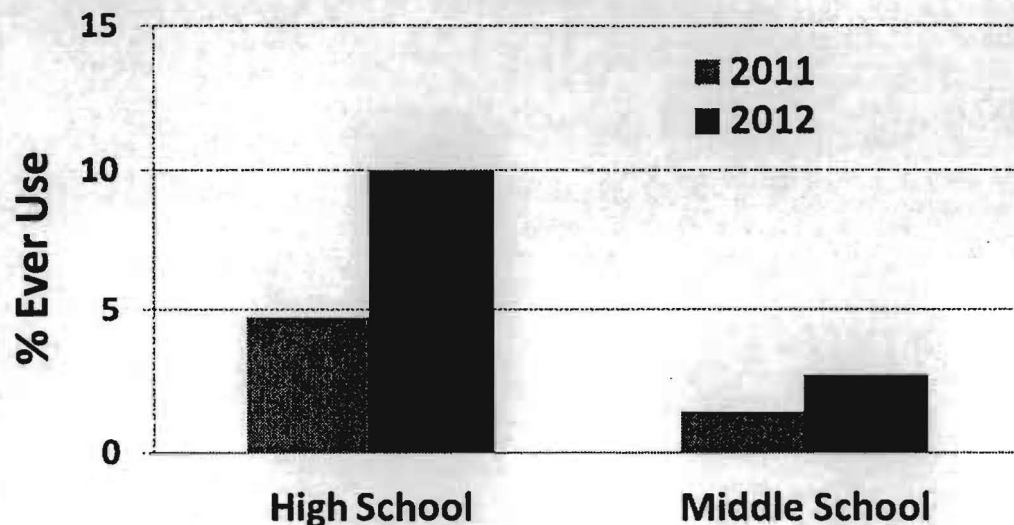


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Source: King et al, 2013; Pearson et al, 2012; Lee et al, 2014; Brown et al, 2014; Etter, 2010; Kralikova et al, 2013; Pearson et al, 2012; Vickerman et al, 2013



# Electronic Cigarette Use by Youth Increasing



76.3% of students who used in the past month also smoked conventional cigarettes

- 1 in 5 middle school students that reported ever using e-cigarettes have never tried conventional cigarettes
- Reasons given for using e-cigarettes
  - Curiosity
  - Attraction of flavors
  - Use by friends and family
  - Desire to quit smoking
  - Availability
  - Sign of independence



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Source: CDC, MMWR 62:893-97, 2013; Camenga, et al, 2014; Kong et al, 2014

# Current E-Cigarette Regulation is Limited

- E-cigarettes mostly unregulated under federal law
  - FDA currently seeking to regulate the sale, manufacture, and distribution of e-cigarettes
  - Unknown when regulations will be finalized
- There are no official standards of design or contents
- There is no requirement to provide public information on the contents of e-cigarettes
- Many states, including Maryland, regulate the sale of e-cigarettes to minors



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Source: [http://tobacconomics.org/wp-content/uploads/2014/06/EcigStateLaws\\_SCTCENDS.pdf](http://tobacconomics.org/wp-content/uploads/2014/06/EcigStateLaws_SCTCENDS.pdf)

# What are the Concerns About Electronic Cigarettes??

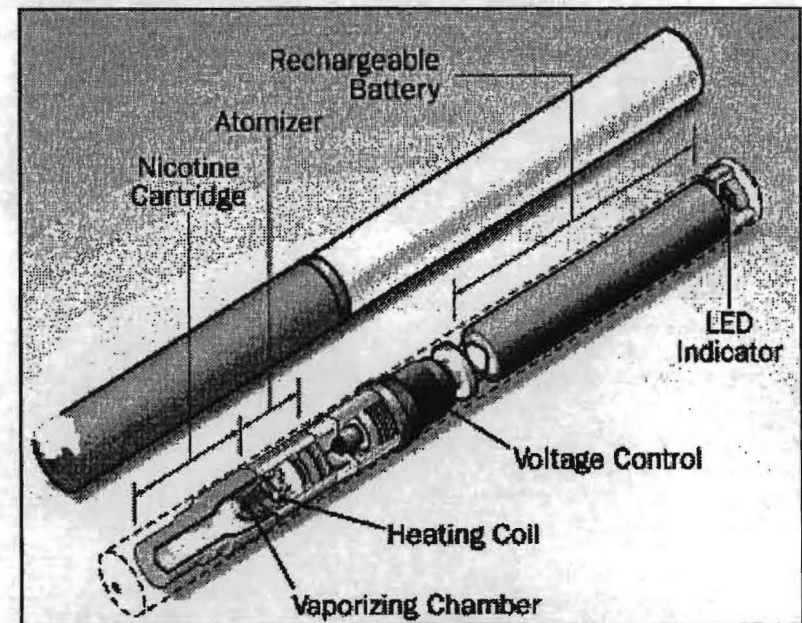
- In general use but risks and benefits not fully evaluated
- Lack of standards over design and contents
- Potential relapse for former smokers or use by never smokers
- May renormalize smoking or encourage poly-use
- Potential for use with controlled substances
- Marketing that may attract kids
  - Kid-friendly flavors (e.g., chocolate, fruit, gummi bear, cotton candy, etc) and characters or famous actors; ads in media





# Anatomy of an Electronic Cigarette

- Consists of a power source, heating device (aerosolizer/vaporizer), and liquid-containing cartridge
- Puffing activates the battery-powered heating device, which heats the nicotine solution into an aerosol (vapor), which is then inhaled
- Early devices designed to resemble conventional tobacco cigarettes



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Source: <http://science.howstuffworks.com/innovation/everyday-innovations/electronic-cigarette1.htm>

# Types of Electronic Cigarettes

## Disposable e-cigarette



NJOY, White Cloud,  
Greensmoke

## Rechargeable e-cigarette



Markten, Mystic,  
blu, VUSE

Sealed device  
or cartridge

## Pen-style, medium-sized rechargeable e-cigarette



eGo, Vaporking,  
Totally Wicked

User adds liquid  
to device

## Tank-style, large-sized rechargeable e-cigarette



Volcano Lavatube



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Source: Grana, et al, 2014

# Tank Systems and Liquid Refills

- Tank systems give users access to an extensive assortment of flavors and nicotine concentrations

	Strength					
Red Label	0.0%	0.6%	1.0%	1.4%	1.8%	3.0%
Herbal e-liquid	0.0%					
Titan Fluid	11mg/ml		18mg/ml		36mg/ml	
Patriot Range	6mg/ml	10mg/ml	14mg/ml	18mg/ml	30mg/ml	
Original e-liquid	8mg/ml	11mg/ml	18mg/ml	24mg/ml	36mg/ml	



**100+ FLAVORS**

- These devices are gaining in popularity
- Can have larger, more powerful batteries
- Concerns about accidental liquid nicotine poisoning
  - CDC reports increase in poison control center calls regarding e-cigarettes: 1 call/month in 2010, 214 calls/month in 2014
  - Regulatory efforts discussed to require child-safe packaging



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# Electronic Cigarette Liquid Contents

1. Nicotine (0% to 3.6%)
2. Propylene Glycol (PG)
3. Vegetable Glycerin (VG)  
(Glycerol)
4. Water
5. Flavorings

- Experience with PG and VG
  - The Food and Drug Administration classifies PG and VG as “Generally Recognized As Safe” (GRAS)
  - PG/VG used in medicines, cosmetics, and food products
  - PG for inhalation (e.g., asthma inhalers) at concentrations much lower than in e-cigarettes
  - VG does not have a history of use for inhalation
  - PG and VG used to create artificial theatrical fog



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# Electronic Cigarette Aerosol Contents

- Long-term safety of aerosol inhalation is unknown
  - It is not just water vapor; little experience with some constituents
  - Some compounds same as in tobacco smoke: acrolein, acetaldehyde
  - Generally lower levels of toxins (9-450x) than in tobacco smoke
- Variable voltage devices can alter the aerosol
  - Higher voltage produces higher temps, more nicotine in aerosol
  - This can increase levels of toxic compounds: e.g., formaldehyde
  - Levels can approach those measured in conventional cigarettes
- E-cigarette aerosol is less complex than tobacco smoke
  - There are an estimated 5000 compounds in tobacco smoke
  - Tobacco smoke includes 70 known carcinogens
  - Many fewer compounds in e-cigarette aerosol

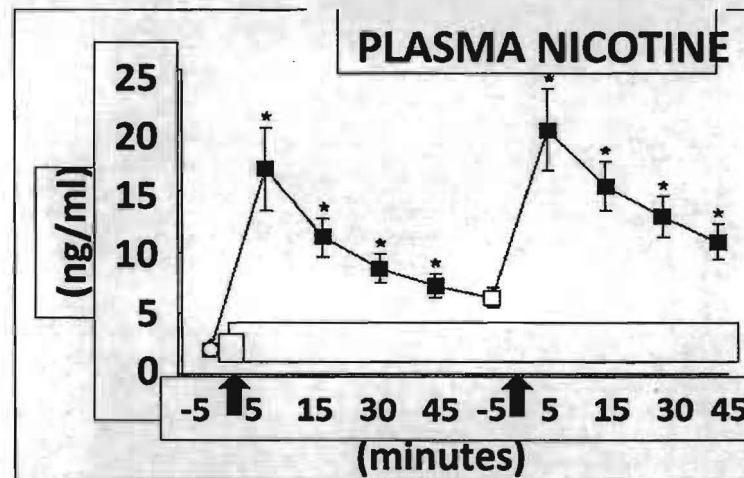


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Goniewicz et al, 2014; Kosmider et al, 2014

# Addiction Potential: Conventional vs. Electronic Cigarette

- Conventional cigarette delivers nicotine rapidly



Arrow indicates  
smoking initiation:  
10 puffs/30 seconds

- Other compounds in smoke may enhance addiction
- Association of smoking with specific behaviors
  - Social interactions, drinking, stress
- Children and teenagers may be highly susceptible to nicotine addiction



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Source: Vansickel, et al, 2010

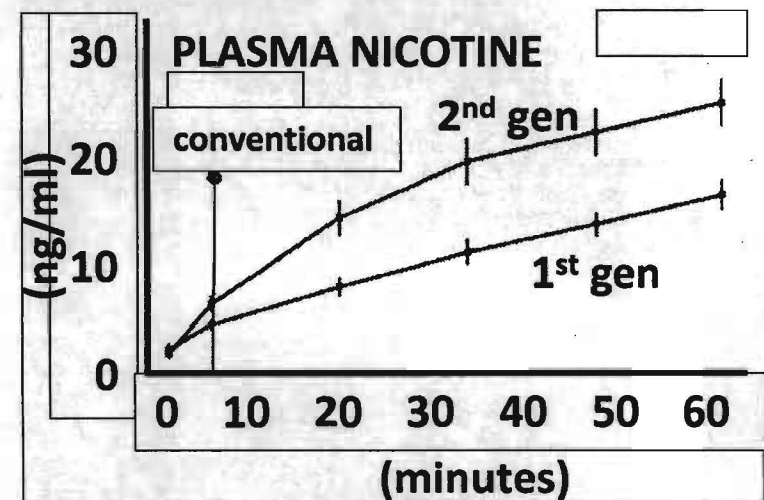


# Addiction Potential: Conventional vs. Electronic Cigarette

- E-cigarettes have been less effective at nicotine delivery

## However

- Newer devices can deliver more nicotine
- Nicotine delivery can be by puffing behavior



- Unknown effects of flavors and additives
- Situational use is similar – social, drinking, stress
- Use by children and teenagers is a significant concern



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Source: Farsalinos et al, 2014

# Secondhand and Thirdhand Exposure

- E-cigarettes have no sidestream emissions like a conventional cigarette (generates smoke while holding)
- Exhaled aerosol may be inhaled by nearby individuals (secondhand exposure)
- Surfaces can be coated with the nicotine-containing aerosol as it settles (thirdhand exposure)
- Health effects of indirect aerosol exposure are unclear
- Extensive experience with conventional cigarettes is being used as a guide to investigate these questions

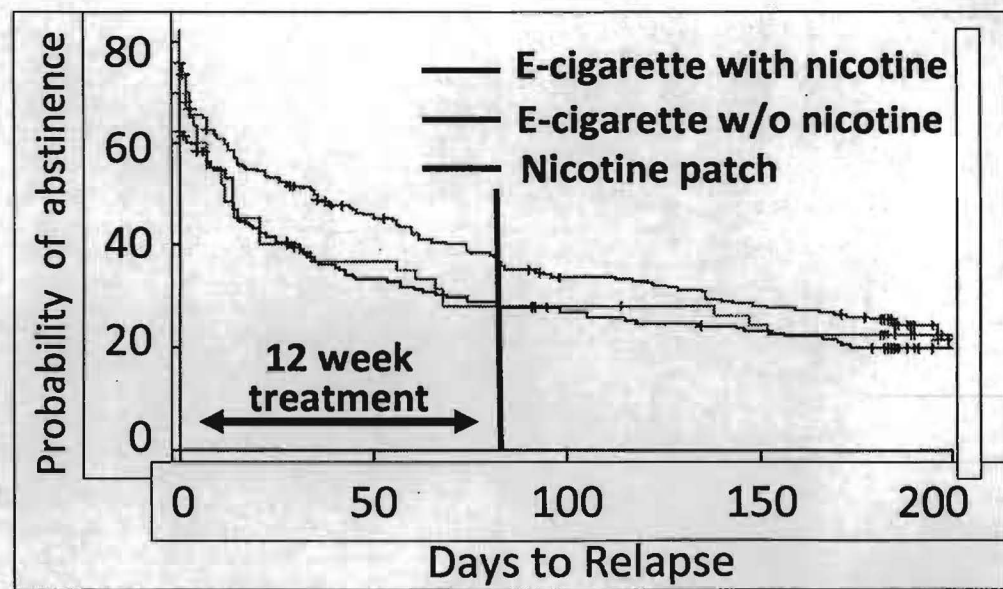


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# Electronic Cigarettes: Nicotine Cessation

- Nicotine replacement therapy (NRT) is an approved cessation treatment
- E-cigarettes may be a uniquely effective NRT due to their potential to mimic conventional cigarettes
  - More rapid nicotine delivery than approved NRT
  - Behavioral aspects: mouth feel, exhaling aerosol, touch
- Only a few peer-reviewed clinical studies
  - Limited effect
  - Little nicotine delivered



Source: Bullen et al, 2013

# Electronic Cigarettes: Harm Reduction

- “People smoke for the nicotine but they die from the tar” Prof Michael Russell, 1976
- In a harm reduction model, smokers would replace conventional cigarettes with e-cigarettes
- There is active debate on the proper approach
  - Some advocates support the immediate routine use of e-cigarettes to replace conventional cigarettes
  - A more cautious view seeks a better understanding on safety and their impact on conventional cigarette use
- No peer-reviewed harm reduction studies



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# NIH Supported Research into Electronic Cigarettes

- Device design and function
- Health effects of aerosol constituents
- Biomarkers (physiological measures of exposure)
- How does marketing influence use
- What are the effect of flavorings on preferences
- Longitudinal surveys of use by youth and adults
- Potential for cessation and harm reduction



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# There are More Questions than Answers for Electronic Cigarettes

- How safe are e-cigarettes for long term use?
- Will conventional cigarette smokers who use e-cigarettes completely switch or become dual users?
- Will e-cigarettes alter a smoker's intentions to quit?
- Can e-cigarettes be an effective tool in cessation?
- Will non-smoking youth routinely use e-cigarettes?
- How will e-cigarettes affect youth smoking of conventional cigarettes?



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# Additional slides



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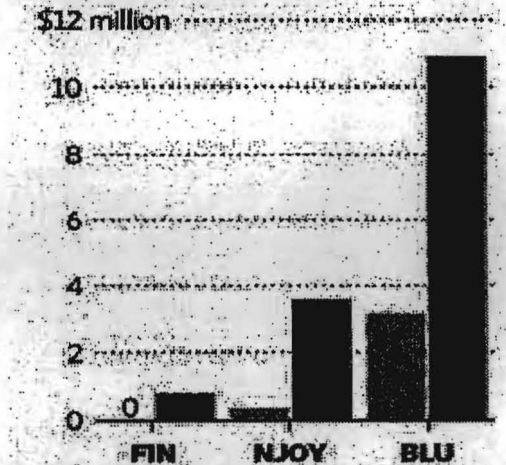
# Electronic Cigarette Advertising

- Advertising of traditional cigarettes TV ads banned since 1971
- Increased youth exposure to e-cig ads
  - Between 2011-2013, e-cig TV ads that reach children increased by 256% and young adults by 321%
- Ads during 2013 Super Bowl reached more than 10 million viewers
- In 2013, \$30 million spent on ads in for 'blu' e-Cig brand (increase planned for 2014)
- In 2014, \$30 million budgeted to promote NJOY e-Cigs in the US (spending triple that of 2013)

## Ramping Up

TV ad spending for e-cigarettes

■ 2012 ■ JAN. TO SEPT. 2013



Source: Kantar Media  
The Wall Street Journal



National Institute  
on Drug Abuse

Source: Wall Street Journal (online) - Dec 2013; Duke, et al (2013) - [http://pediatricsde.aap.org/pediatrics/july\\_2014?pg=59#pg59](http://pediatricsde.aap.org/pediatrics/july_2014?pg=59#pg59)

# Regulatory Options Enacted by States

- Taxing e-cigs similar to tobacco products
- Restrict or prohibit redemption of coupons for tobacco products, including e-cig products
- Prohibit distribution of free samples
- Regulate sale and distribution of flavored non-cigarette tobacco products with characterizing flavors (similar to New York)
- Comprehensive youth access laws prohibiting sale to minors, requirement to be kept behind counters, sold only in places where adults permitted to enter and raise minimum age to purchase
- Include e-cigs in smoke and tobacco-free restrictions
- Regulate the sale and marketing of e-cigs, health warnings at point-of-sale



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Source: <http://publichealthlawcenter.org/sites/default/files/pdf/tclc-fs-regulatory-options-e-cigarettes-2013.pdf>



# Current State Regulations

## United States 100% Smokefree Air Laws

American Nonsmokers' Rights Foundation

As of July 3, 2014

Note: American Indian and Alaska Native sovereign tribal laws are not reflected on this map.

### Territories and Commonwealths

Commonwealth of Northern Mariana Islands

Guam

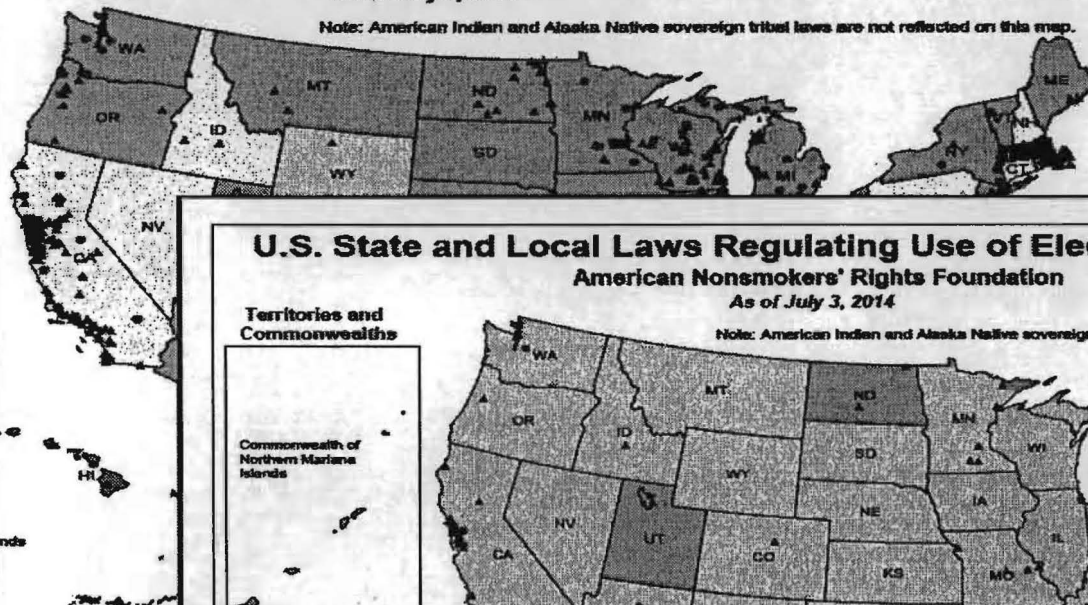
American Samoa

Puerto Rico

U.S. Virgin Islands

### Locality Type with a 100% Smokefree Law

- ▲ City
- County



## U.S. State and Local Laws Regulating Use of Electronic Cigarettes

American Nonsmokers' Rights Foundation

As of July 3, 2014

Note: American Indian and Alaska Native sovereign tribal laws are not reflected on this map.

### Territories and Commonwealths

Commonwealth of Northern Mariana Islands

Guam

American Samoa

Puerto Rico

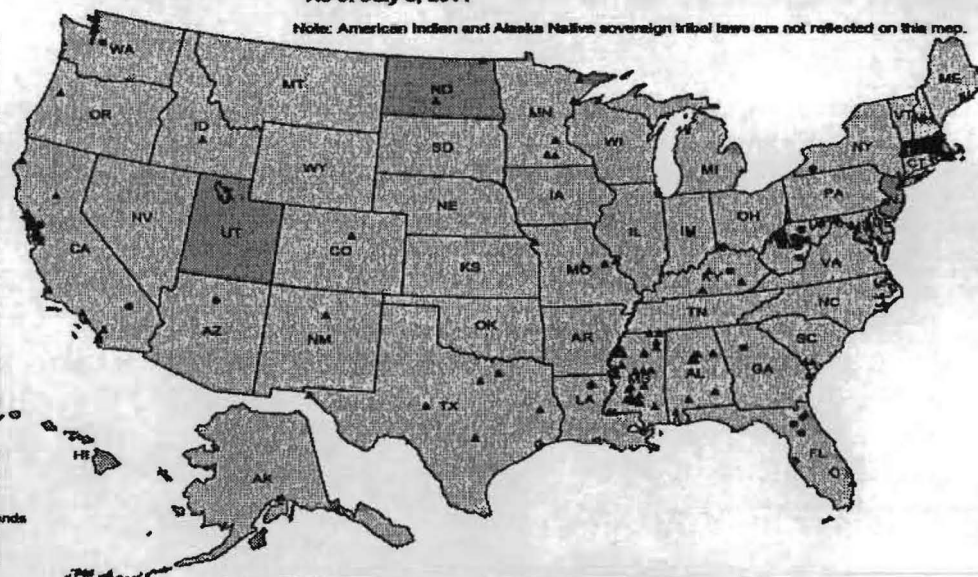
U.S. Virgin Islands

### Locality Type

- ▲ City
- County

### State and Commonwealth/Territory Law Type

- Law Restricts E-cigarette Use in 100% Smokefree Venues
- No E-cigarette Restriction in 100% Smokefree Venues



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# Physiological Effects of Nicotine

- Nicotine is rapidly delivered to the bloodstream via conventional cigarettes.
- Nicotine stimulates the adrenal glands to release the hormone epinephrine (adrenaline), increasing blood pressure, respiration, and heart rate.
- Nicotine increases release of the neurotransmitter dopamine, affecting brain pathways controlling reward and pleasure.
- Long-term brain changes induced by continued nicotine exposure result in addiction—a condition of compulsive drug seeking and use, even in the face of negative consequences.



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