

The Science of Decision-Making: Connecting People and Policy

Understanding the E-cigarette Landscape: An Environmental Scan of Website Forums and Point of Sales



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Introduction

Electronic Nicotine Delivery Systems (ENDS)

- Are novel tobacco products that are battery-powered devices which heat a nicotine solution in order to create an inhalable vapor without the combustion of tobacco
- Come in a variety of product configurations (e-cigarettes, tanks, e-hookahs), shapes, sizes, colors, and brands;
- Various flavors available; many that may appeal to youth (e.g., bubblegum and cotton candy)
- Estimated to be more than 466 brands available



Epidemiology of E-Cigarette Use

Awareness and prevalence of e-cigarette use has increased among adults and youth

- From 2010-2013, use among adults had more than doubled from 3.3% to 8.5%
- From 2011-2013, ever e-cigarette use increased from 4.7% to 11.9% and current e-cigarette use increased from 1.5% to 4.5% in high school students
- High school students who use e-cigarettes are two times more likely to have intentions to use conventional cigarettes



Current Research Gap

There is a need to assess configurations and characteristics of manufactured [pre-packaged] e-cigarette products that are sold in the Southeastern United States.

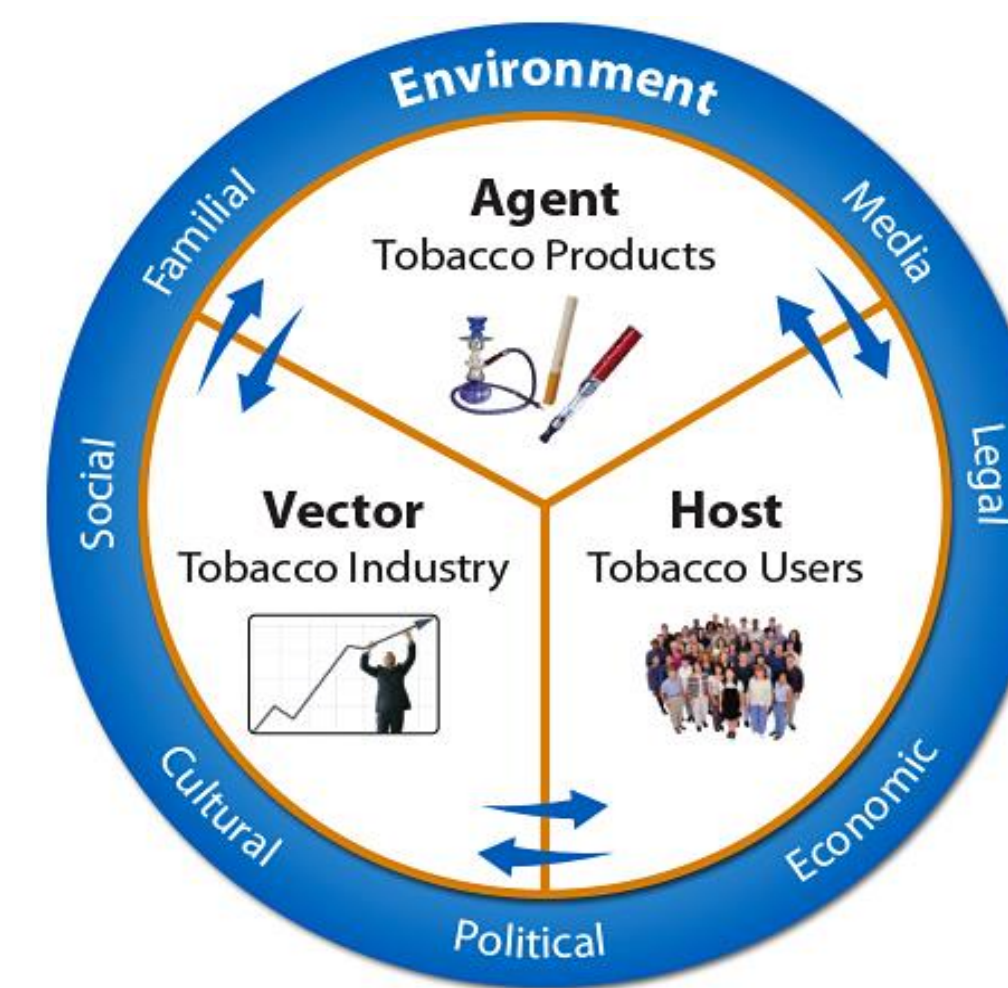
Assessing e-cigarette configurations and characteristics will assist in the development of reliable and valid measures that may be used for surveillance and research related to risk perception and decisions about using these products.

Study Objectives

Exploratory Pilot Study

The Host, Agent, Vector, Environment (HAVE) Model was used in a three-phase pilot study with the following Aims:

- 1) Identify point of sales (POS) where e-cigarette users purchased their product by conducting a content analysis of web forum blogs
- 2) Conduct environmental scans at POS identified in Aim 1 to assess e-cigarette product (agent) characteristics and configurations
- 3) Develop and test new survey measures about product characteristics and configurations



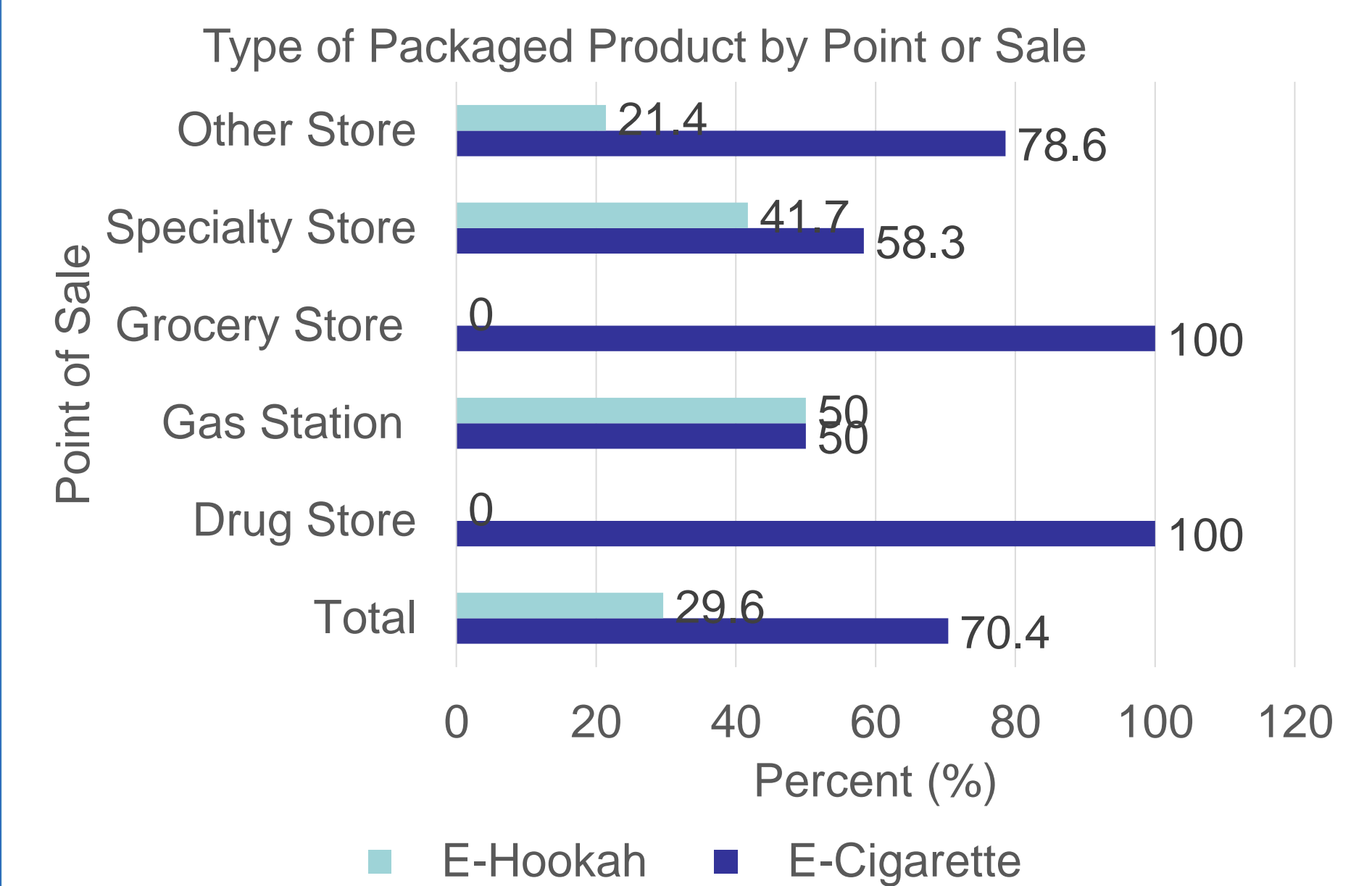
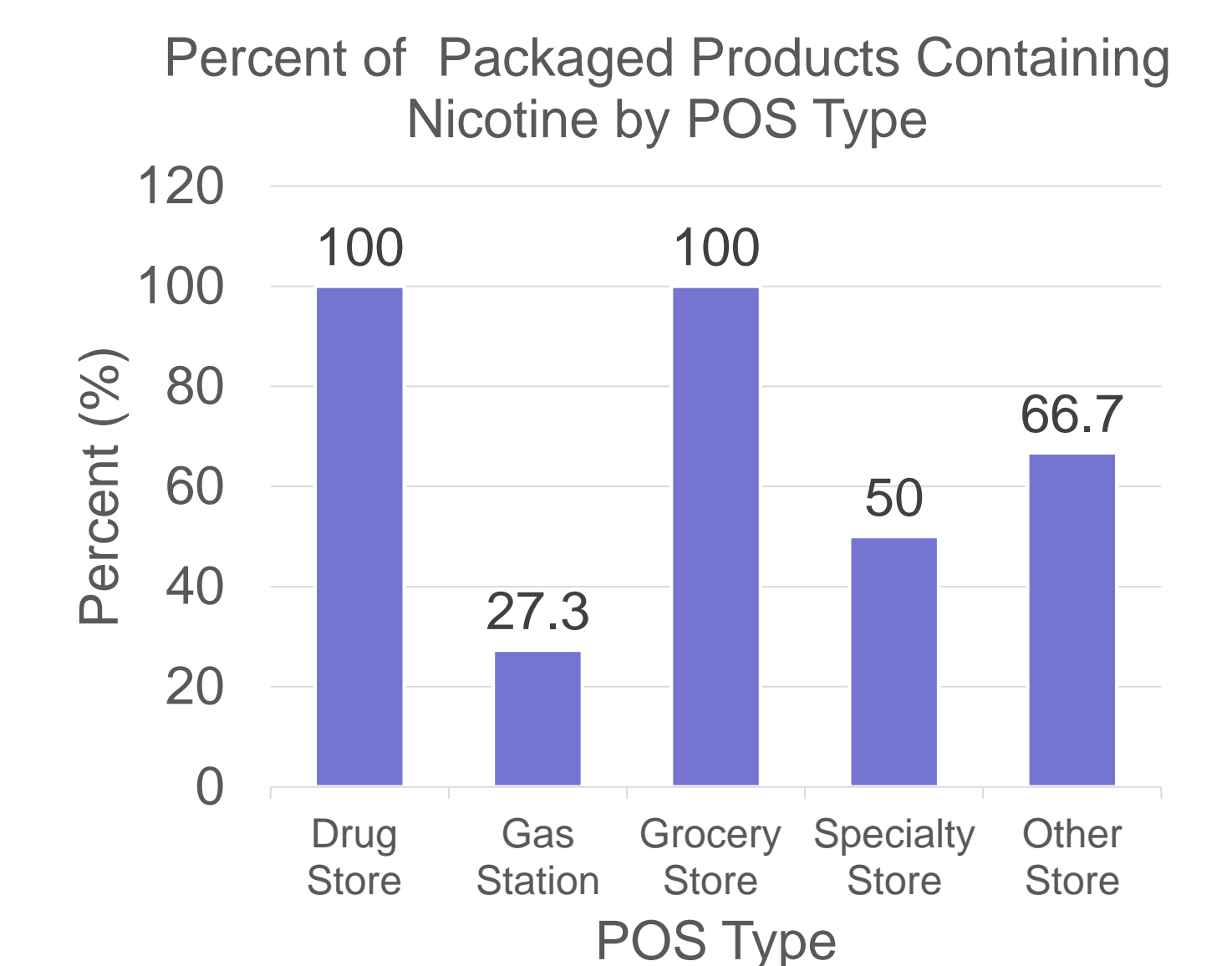
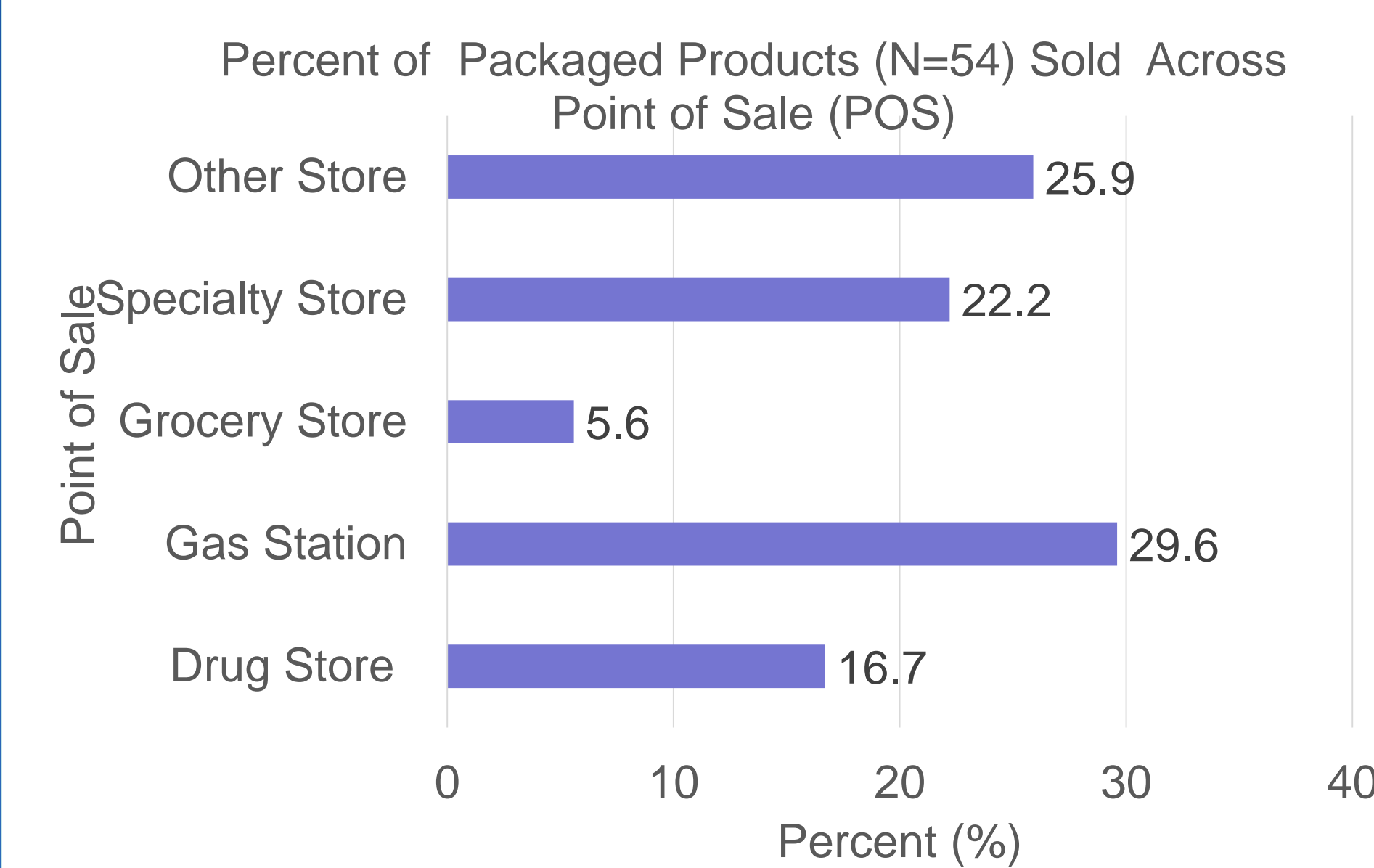
Methodology

- In the summer of 2014, two e-cigarette web blogs were analyzed to identify the most frequently cited POS for purchasing e-cigarettes and other similar devices. POS identified included: specialty stores (vape/tobacco); Walmart; gas stations; drug stores; shopping malls; grocery stores.
- All of the above POS were mapped within a 1-3 mile radius from GSU, Ga Tech, and UGA. Of these, 15 were audited (3 gas stations, 2 drug and 2 grocery stores, 5 specialty stores, 1 mall store, and 2 other sources). The final dataset included 54 unique packaged products that were identified as being either e-cigarette or e-hookah. Product characteristics examined for the present study included: POS type; disposable/reusable; nicotine presence; packaging; and flavor
- SPSS v21 was used for all analysis. Chi Square statistics were obtained to ascertain differences between e-cigarettes and e-hookahs on product characteristics



Results

Of the 54 pre-packaged products, 70.4% were e-cigarettes and 29.6% were e-hookahs. Drug stores and grocery stores only carried nicotine containing e-cigarettes. E-cigarettes were more likely than e-hookahs to: contain nicotine; be packaged in traditional-looking cigarette boxes; and come in tobacco and menthol flavors. E-hookahs were more likely than e-cigarettes to: be disposable; sold in fruit and other flavors; and come in pen boxes.



Characteristics	Type of Product	
	E-Cigarette (n=38)	E-Hookah (n=16)
Disposable	56.8%	100%**
Nicotine Containing	94.1%	8.3%**
Packaging		
Traditional Cigarette Style Box or Other Box	52.6%**	0
Plastic Packaging	23.7%	18.8%**
Pen Box	21.1%	81.3%**
Flavor Types		
Tobacco and Menthol	88.5%	40.0%**
Dessert and Candy	11.5%	13.3%
Fruit Flavors	15.4%	80.0%**
Drink Flavors	15.4%	40.0%
Other Types of Flavors	7.7%	66.7%**

**p<.01

Conclusions & Future Directions

- Preliminary findings indicate that e-cigarettes are the predominant product on the market. However, other products such as e-hookahs are also available and differ substantially in product characteristics from e-cigarettes.
- The findings from this pilot study underscores the need to conduct additional research on agent characteristics using a representative sample of e-hookah and e-cigarette products.
- The availability of these products at POS in close proximity to college campuses may possibly lure young adults to experiment with these novel products.
- Using the study findings, new survey measures were developed and tested among 300 e-cigarette users, for which analyses are currently underway.

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