E-cigarettes for smoking cessation?

Next Generation Tobacco – The Impact of E-Cigarettes on Kentucky’s Future Health
December 10, 2018

Audrey Darville, PhD, APRN, NCTTP, FAANP
Certified Tobacco Treatment Specialist
Associate Professor, University of Kentucky College of Nursing
Course Director, BREATHE Tobacco Treatment Specialist Training
President, Association for the Treatment of Tobacco Use and Dependence
Getting “Hooked” on Nicotine

• Acts directly on the brain to transiently enhance pleasure, vigilance, modulate mood, and suppress appetite
• Acts on the body to increase an adrenaline-like response
• Abstinence causes unpleasant withdrawal effects: nervousness, agitation, decreased concentration, increased appetite
For the Industry: It’s All About Nicotine

“Think of the cigarette pack as a storage container for a day’s supply of nicotine....

• Think of the cigarette as a dispenser for a unit dose of nicotine...
• Think of a puff of smoke as a vehicle of nicotine...
• Smoke is beyond question the most optimized vehicle of nicotine and the cigarette the most optimized dispenser of smoke.”

Dr. William Dunn; Philip Morris Tobacco Company, 1972
Why Are Adults Vaping?

• Majority are trying to quit smoking or cut down.
• To avoid smoke-free restrictions.
• Flavors are appealing.
• For nicotine BUT levels are highly variable.
• Marketing is pervasive and effective.

Kentuckians smoke more (26.2% vs. 15.5 %) and vape more (5.9% vs. 2.4%) than U.S. population (2016 data)
Harm, Less Harm, Harmless???

• Cigarette smoking the leading cause of preventable death and disease. (CDC, WHO)

• If vaping is determined to be less harmful (assuming less harm=less exposure to toxins) AND people switch completely from combustible cigarettes, then we could see marked declines in tobacco-related morbidity and mortality.

• Many adults do not perceive e-cigarettes as less harmful (Majeed, et al., 2017)
The Evidence for Quitting Combustibles

Studies have produced mixed results:

• Evidence is limited that e-cigarettes help people quit combustible cigarettes (NASEM, 2018)
• No evidence dual-use has any health benefit (NASEM, 2018)
• BUT from the National Health Service website: “An estimated 2.9 million adults in Great Britain currently use e-cigarettes and of these, 1.5 million people have completely stopped smoking cigarettes. They carry a fraction of the risk of cigarettes and can be particularly effective when combined with extra quitting support.” (Expert opinion)
Vaping for Cessation

Benefits:
- Health and mortality improvements will occur with reduced combustible tobacco use prevalence

Costs:
- Dual/multiple product use
- Delayed quitting using safer, more effective treatments
- Youth initiation
- Impact on vulnerable populations (pregnancy, mental illness, substance use, low SES)
- Effects of secondhand exposure
Key Questions for Tipping the Benefit/Risk Scale

• Will people quit, switch or use vape and smoke?
• Can the 400+ devices with thousands of potential ingredients to choose from already on the market be regulated sufficiently to produce a product that has low toxicity and helps people quit?
• What impact will vaping have on the re-normalization of smoking in public places?