Reduced nicotine cigarettes and e-cigarettes/ANDS

Dorothy K Hatsukami, PhD
University of Minnesota
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We can agree:

Harm Reducing
- Cessation of combusted products

Harm Elevating
- Uptake among non- or ex-tobacco users
- Prolonged dual use
- Gateway to combusted product use
Current Marketplace: Powerfully Addicting Product
The Challenge

How can we facilitate the complete transition of smokers, unable and unwilling to quit, to regulated products with less risk

**AND**

Protect non-tobacco users from uptake of these products or from a product that serves as a gateway to combusted products?
Regulation to reduce nicotine in combusted products as a nation-wide policy
“The reduced nicotine content cigarette and the emergence of non-combusted nicotine products like e-cigarettes should be viewed not as alternatives but as complementary components of regulatory interventions that could virtually end combusted tobacco use.”
Impact of reducing nicotine in cigarettes in smokers

Relative to NNC cigarettes, VLNC cigarettes significantly:
• Reduce cigarettes smoked
• Reduce nicotine exposure
• Reduce dependence
• Increase quit attempts

Few unintended consequences
• No significant compensatory smoking behavior
• Mild withdrawal
• No increases in MJ/alcohol use
• Adverse events similar across dose conditions
Decreasing nicotine content results in a smaller proportion of rats acquiring stable nicotine self-administration and a longer acquisition period for those that do acquire.

T. Smith et al., 2014
Reduced nicotine content cigarettes and use of alternative nicotine products: exploratory trial

Dorothy K. Hatsukami¹,², Xianghua Luo¹,³, Laura Dick¹, Margarita Kangkum¹, Sharon S. Allen⁴, Sharon E. Murphy¹, Stephen S. Hecht¹, Peter Shields⁵ & Mustafa al’Absi⁶

Masonic Cancer Center, University of Minnesota, Minneapolis, MN, USA.¹ Department of Psychiatry, University of Minnesota, Minneapolis, MN, USA.² Division of Biostatistics, School of Public Health, University of Minnesota, Minneapolis, MN, USA.³ Family Medicine and Community Health, University of Minnesota, Minneapolis, MN, USA.⁴ James Cancer Center, Ohio State University, Columbus, OH, USA.⁵ and Duluth Medical Research Institute, University of Minnesota, Duluth, MN, USA.⁶
VLNC facilitates the use of ANDS and greater harm reduction

- VLNC vs. NNC condition led to significantly:
  - Greater use of ANDS, with electronic cigarettes being the most highly used product
  - Reduced number of combusted product use and nicotine/carcinogen exposure
  - Greater number of 24 hr quit attempts (27% vs. 7%)

- Greater uptake of non-combusted products was significantly ($p < 0.001$) associated with:
  - Greater reductions in combusted product use
  - Greater number of days abstinent from combusted products
  - Lower total NNAL
Reducing Nicotine in Combusted Products: Concerns

- Smacks of prohibition
- Nation undergoing massive withdrawal
- Negatively affect vulnerable populations
- Illegal market
- Consumer, industry and government revolt

Mitigated because of the availability of alternative nicotine delivery systems
ANDS Approach: Concerns

- Gateway to smoking
- Dual use of smoking and non-combusted products
- Relapse to smoking

Mitigated because combusted products are minimally addictive

- Addicting the nation to another nicotine product
Summary

- Rapid elimination of highly addictive and toxic combusted tobacco products is an urgent public health need.
- Shifting smokers to regulated, less harmful alternative forms of nicotine would reduce the health burden of combusted product use.
- A national policy of reducing nicotine content in cigarettes to minimally addictive levels in tandem with ANDS could more rapidly and substantially improve public health.