Using Big Data and a Reasoned-Action Approach to Map Intervention Opportunities for E-cigarettes

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- Combustible tobacco use number one cause of preventable death (CDC, 2015)
 - >480,000 deaths per year in U.S. including 42,000 from secondhand smoker (HHS, 2014)
 - 40 million current smokers
 - $\sim 17\%$ of U.S. population
 - $\sim 70\%$ want to quit (HHS, 2014)

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• Youth and young adults vulnerable populations

- >3,000 minors initiate each day
- >2,000 youth and young adults transition from occasional to daily smoking

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- Industry influence vs. tobacco prevention and control (FTC, 2015)
 - Tobacco industry spends >9 billion on cigarette advertising and promotion
 - State-level funding tobacco prevention and control efforts at CDCrecommended levels nearly non-existent

ENDS

- Since 2007, increasing spread of electronic nicotine delivery systems (ENDS) use among adults and youth (Arrazola, et al, 2015; Bunnell et al, 2015; King et al, 2015)
- Include electronic cigarettes/e-cigarettes, electronic hookahs, electronic cigars, vape-pens

ENDS



http://khqa.com/news/offbeat/watch-california-representative-vapes-while-debating-vaping-bill

ENDS

- How are ENDS shaping tobacco use patterns?
 - Cessation among current smokers?
 - Initiation among youth?
 - Role of industry influence?

Laws on ENDS Sales to Minors



http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6349a1.htm

Laws on Use of ENDS



http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6349a1.htm

Reasoned-Action Approach



(adapted from Fishbein & Yzer, 2003)

Methods

• Keywords

- E-cigarettes and vaporizers
- Atmos (and other popular brands)
- "safe", "enjoyable", "popular", "quit"

• Procedure

HDMA Dashboard

• Analysis



• Identification of novel targets for individual-level and community-level interventions

• Evaluate effectiveness of current tobacco control policies

Thank You!

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