

Tobacco Regulatory Science Investigating the Intersections of Products with Diverse Populations

Institution: University of Southern California

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Project 3: Product characteristics, marketing, and e-cigarette and cigarette use across adolescence and young adulthood

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Project 3 Abstract:

Electronic (e)-cigarettes are the most commonly used tobacco product in adolescents and young adults. E-cigarette use is associated with subsequent cigarette initiation in this population. E-cigarette product diversity (i.e., product characteristics and associated marketing strategies) could be a target for FDA product standards and marketing restrictions to reduce the adverse impact of e-cigarettes in young people. Yet, there has been little evidence on this topic. P3 will test hypothesized e-cigarette product characteristics and marketing strategies that may attract never-smokers and put them at risk for tobacco product use but do not affect the likelihood that young smokers will adopt and switch to e-cigarettes. Such data will inform regulatory policies that meet FDA's mission to 'protect the population as a whole.' Example hypothesized product features that may disproportionately attract never smokers (vs. smokers) include sweet flavors (vs. tobacco or other flavors), devices and e-liquid compositions used to generate large aerosol clouds for "vape tricks" (vs. devices that look and feel like cigarettes), and youth-oriented marketing strategies for e-liquid naming, such as "Kustard Killer," and packaging with (vs. without) cartoon images. Method: P3 will test these hypotheses in a large Center-wide USC- TCORS cohort (N=6400) overseen by the Population Core. Rich longitudinally collected data, including up to 8 years of cumulative follow-up will span critical developmental windows from 14-24 years of age, during which lifelong tobacco use patterns have historically been established. Aim 1. To investigate the association of: 1a) e-cigarette product diversity with appeal and interest in e-cigarettes, using an innovative within-subject experimental design including exposure to still images of products and marketing, and GIFs of vape clouds embedded in computerized survey interface (developed with assistance from the Administrative Core and other projects), 1b) e-cigarette interest with subsequent e-cigarette initiation, and 1c) product marketing exposure via various channels with e-cigarette initiation. Aim 2. To evaluate the association of 2a) e-cigarette initiation with tobacco product use outcomes (i.e., e-cigarette and cigarette progression to regular use, dependence, and cessation), and 2b) e-cigarette product characteristics and marketing exposures (via several channels) with tobacco product use outcomes. Aim 3. To evaluate whether associations of product characteristics and marketing with outcomes observed in Aims 1 and 2 differ between baseline never-smokers and smokers. Integration with "Intersections of Products with Populations" theme: P3 will study a variety of domains of e-cigarette product diversity that overlap with and complement domains studied by the other USC-TCORS projects. P3 uniquely addresses population diversity in the Center by comparing current smokers while they are still young (age <24) with never-smokers. P3 will also examine differential associations by sex, race/ethnicity, sexual orientation, and socioeconomic status.