

Abstract: Who and why cigarette smokers use e-cigarettes after hospitalization

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This project is designed to take advantage of the infrastructure in place for a current RCT (parent study) examining the effectiveness and cost-effectiveness of a web-based smoking cessation intervention that transitions hospitalized smokers to continue abstinence at home. Sharing recruitment and data collection staff and similar protocols across this and the parent study maximizes efficiency to collect epidemiologic and explanatory data for an emerging tobacco trend. Electronic-cigarette use is increasing, particularly among smokers trying to quit, while scientists debate their potential for benefit and harm. There is limited knowledge about e-cigarette use and the causal mechanisms involved in their use. The *Primary specific aim* is to test a longitudinal mediation model elucidating mechanisms involved in e-cigarette use. Specifically, we will identify who uses and why they are likely to use e-cigarettes. This will include predictors of susceptibility to e-cigarette marketing messages. The *Secondary specific aim* is to collect important data regarding the prevalence of e-cigarette use among smokers both before and after their hospitalization, contributing to the epidemiologic knowledge base characterizing the scope of e-cigarette use. This longitudinal observational study will recruit 980 cigarette smokers between the ages of 19 and 80 during hospitalization. Based on findings from our current study, we expected 32% to be minority, 48% female and 28% to have already tried e-cigarettes. Participants will be interviewed at hospital bedside at baseline and via telephone 6 and 12 months later on factors hypothesized to predict e-cigarette use: intention which is influenced by expectancies for e-cigarettes (and standard cigarettes) which are driven by susceptibility to e-cigarette marketing messages which in turn is influenced by nine factors (e-cigarette exposure, tobacco dependence, abstinence related expectancies, health literacy, demographics, abstinence self-efficacy, motivation to quit, need for cognition and personal involvement). Findings from this research will advance the understanding of *which* smokers and *why* these smokers use e-cigarettes among an enriched sample (smokers who have received smoking cessation advice and information when hospitalized). This will also include the contribution of e-cigarette marketing activities and represents a critical first step toward understanding perceptions of e-cigarettes and their role in the health of current smokers. Advancing this understanding is needed to guide the FDA to appropriately implement the Family Smoking Prevention and Tobacco Control Act.