

Title: Effects of E-Cigarette Power and Nicotine Content in Dual Users and Vapers

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### *Statistical Analysis Plan*

Subjective, physiological, DPT, MCP, and PRT data will be prepared as reported elsewhere (Barnes et al., 2017; Rusted et al., 1998; Cobb et al., 2010). Elasticity is estimated using an exponential demand function with nonsystematic DTP data excluded based on two criteria: trend, or whether the participant had a general decrease in consumption from the lowest to highest price; and bounce, or whether a participant reported higher consumption at sequential higher prices (Stein et al., 2015). In general, analysis will involve a mixed (between- and within-subject) ANOVA. Demographic data will be examined to determine if there are significant between-group differences on measures that may be related to study outcomes (some differences are expected, like cigarette use). Unexpected between group differences will be considered as potential covariates in the primary analysis (see Evans et al., 2006). For all ANOVAs, adjustments for sphericity violations and post-hoc testing using Tukey's HSD or planned contrasts with Bonferroni corrections will be used (Keppel, 1991). Missing data will be imputed using multiple imputation techniques (Allison, 2001).