

**VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY**

**Statistical Analysis Plan**

**22-432 Effects of narratives on demand for low and high ventilated cigarettes and  
substitution for alternative products.**

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### ***Study Design and Statistical Analysis plan***

In a between-group within-subject repeated measures design, participants will be randomized to one of three groups (narrative, fact sheet, or control) and complete five ETM conditions, which include six trials assessing different cigarette prices: a) high-ventilated cigarette alone, b) low-ventilated cigarette alone, c) high- and low-ventilated cigarette with high-ventilated cigarettes increasing in price, d) high- and low-ventilated cigarette with low-ventilated cigarettes increasing in price, and e) usual, high- and low-ventilated cigarette with usual cigarettes increasing in price.

A within-between subject analysis of variance (ANOVA) will test for differences in substitution and demand measures between groups (narrative, fact sheet, and control) and condition (e.g., high-ventilated cigarettes alone). We will test for the interaction between group and condition, suggesting a difference in how each group responds to different conditions. Order effects will be included in all models to account for the balanced Latin square design for counterbalancing the ETM conditions within the session. We will perform post-hoc contrasts to compare groups, based on our hypothesis.

Additional analyses might be conducted.