**Advanced Data Analysis Final Project Abstract**

Are health care cost barriers associated with flu vaccination?

An analysis of older adults in Greater Boston, Massachusetts

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In the United States, complications from seasonal influenza are concentrated among people aged 65 years and older, who account for 90% of deaths and 63% of hospitalizations each year. Less than 50% of older adults report receiving a flu vaccination. The objectives of this research are to determine whether cost barriers to health care are associated with flu vaccination, and whether race and sex modify the relationship.

This study is based on 2017 Behavioral Risk Factor Surveillance System (BRFSS) selected Metropolitan/Micropolitan Area Risk Trends (SMART) data from older adult respondents (65 years) who reside in Greater Boston. Logistic regression was used to model the relationship between receiving a flu vaccine in the last 12 months (dependent variable) and reporting a cost-related barrier to accessing health care (independent variable). Age and general health status were included as covariates, and effect measure modification was assessed for race and sex.

In the study sample (n = 1,287), there was no significant difference in the odds of receiving a flu vaccine based on cost barriers (aOR = 1.15, 95% CI 0.67-1.95). The odds of receiving a flu vaccine were significantly greater among Black adults compared to white adults (aOR = 1.99, 95% CI 1.15-3.42) and marginally lower among males compared to females (aOR = 0.84, 95% CI 0.66-1.06), but neither race nor sex significantly modified the effect of health care cost barriers on flu vaccination.

To promote uptake of the flu vaccine, it may be important to explore factors outside of health care cost barriers that affect older adults in Greater Boston.