

Georgia Dismukes¹, Jessica Denton¹, Alexis Heatherly¹, Colleen Caleshu²
¹University of Alabama at Birmingham ²Genome Medical, San Francisco, California

Introduction

- Demand for cancer genetics services is greater than existing genetics clinics can meet.
- Risk assessment tools can gather family history information prior to the appointment, potentially enabling increased clinic volumes.
- Understanding predictors of tool completion is essential to elucidating and addressing barriers to tool utilization.
- RISE is a nationally available tool developed by Genome Medical that is clinically validated. It collects and analyzes family and personal cancer history to determine if a patient meets criteria for genetic testing.
- Patients in the UAB Cancer Genetics Clinic are sent a link to the tool via email or text prior to their pre-test appointments.

Study Purpose

- To identify patient characteristics associated with completion of a hereditary cancer risk assessment tool.

Methods

- A retrospective chart review of patients referred to the UAB Cancer Genetics clinic was utilized to gather tool completion and patient characteristics.
- Comparisons between completers and non-completers were done via student's t test or Chi square test.
- A multiple logistic regression with Firth correction was conducted with completion as the dependent variable. All significant variables ($p < 0.05$) from the bivariate analysis and key covariates were included.

Results

83.0% female

83.0% non-Hispanic

70.0% White

Average age of 45

82.2% did not have cancer

Figure 1. Patient demographics and clinical characteristics.

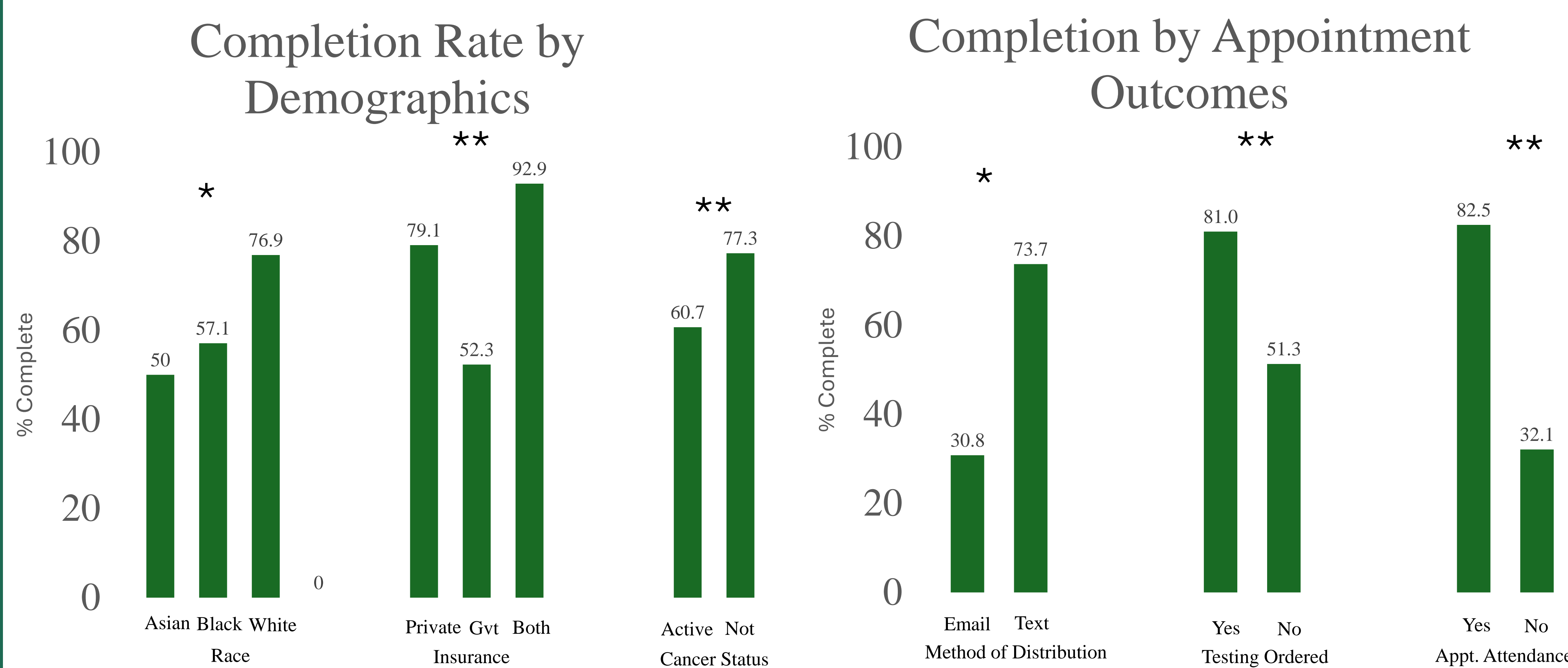


Figure 2. Significant variables in the bivariate analysis. Govt: government, Appt: appointment. * $p < 0.05$, ** $p < 0.0001$

The following variables were not associated with completion of the tool in bivariate analyses: age, sex, marital status, ethnicity, previous diagnosis of cancer, a family history of cancer, a first-degree relative with cancer, the number of family members/first-degree relatives with cancer, test completion, and having children.

Table 1. Results from the multivariate logistic regression

Predictor	Significance Level	Adjusted Odds Ratio
Method of distribution	$p = 0.038$	Text vs. email Adj-OR = 6.3 [1.1, 35.3]
Insurance Type	$p = 0.04$	Private vs. Government Adj-OR = 3.4 [1.5, 7.7]
Insurance Type	$p = 0.049$	Private + Government vs. Government Adj-OR = 8.8 [1.01, 76.3]
Appointment Attendance	$p < 0.001$	Attend vs. Not Adj-OR = 5.9 [2.5, 14.2]

Conclusion

- Genetic counselors should be aware of inequities that may influence tool completion (i.e., insurance type).
- Text message distribution of tools should be implemented whenever possible.
- Tool completion may serve as a motivator for appointment attendance.

Future research could qualitatively explore the perspectives of patients who chose to complete and not complete the tool.