

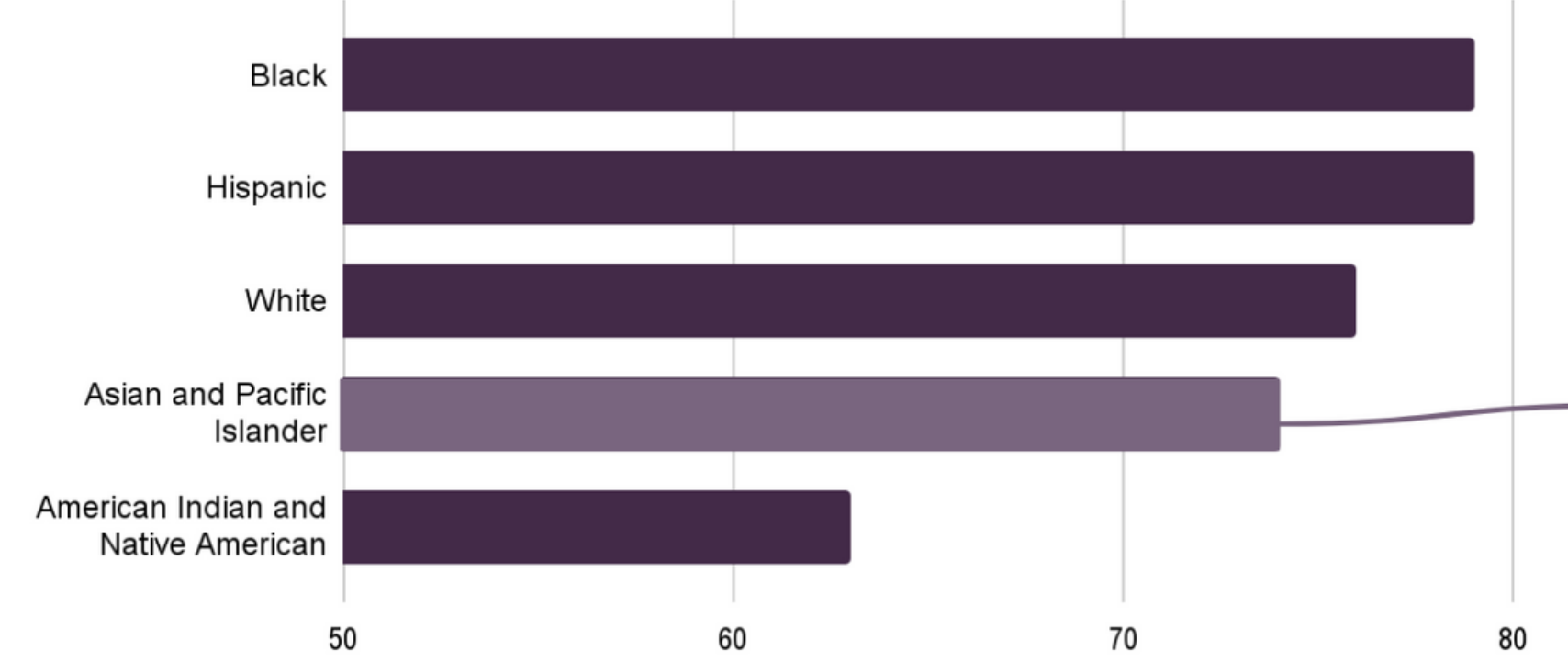


### Background

Asian Indians in the U.S. have lower breast cancer screening uptake than other major ethnic groups, despite cancer being the leading cause of death in Asian Americans.<sup>1</sup>

Percentage of Women Ages 50-74 who had a Mammogram in the Past 2 Years (2019)

Source: Susan G. Komen Foundation



**3x** increase in cancer incidence in Asian Indians between 1990-2008

Asian Indian Women: 63.8% (Detroit)<sup>2</sup> and 56% (NYC)<sup>3</sup>

Reasons for this disparity remain unclear, particularly in the Houston area. **The goal of the project is to explore if sociocultural barriers and stigmas can help explain this observation, and if so, what can be changed in existing educational interventions to account for these factors.**

### Objectives

#### Associations



Determine whether an sociocultural causal model exists

#### Education



Develop culturally-sensitive educational materials

#### Screening



Improve screening adherence in the Asian Indian population

### Methodology

#### Phase 1

Design KAP survey and develop partnership with IACAN

#### Phase 2

Recruit participants in the community and analyze data

#### Phase 3

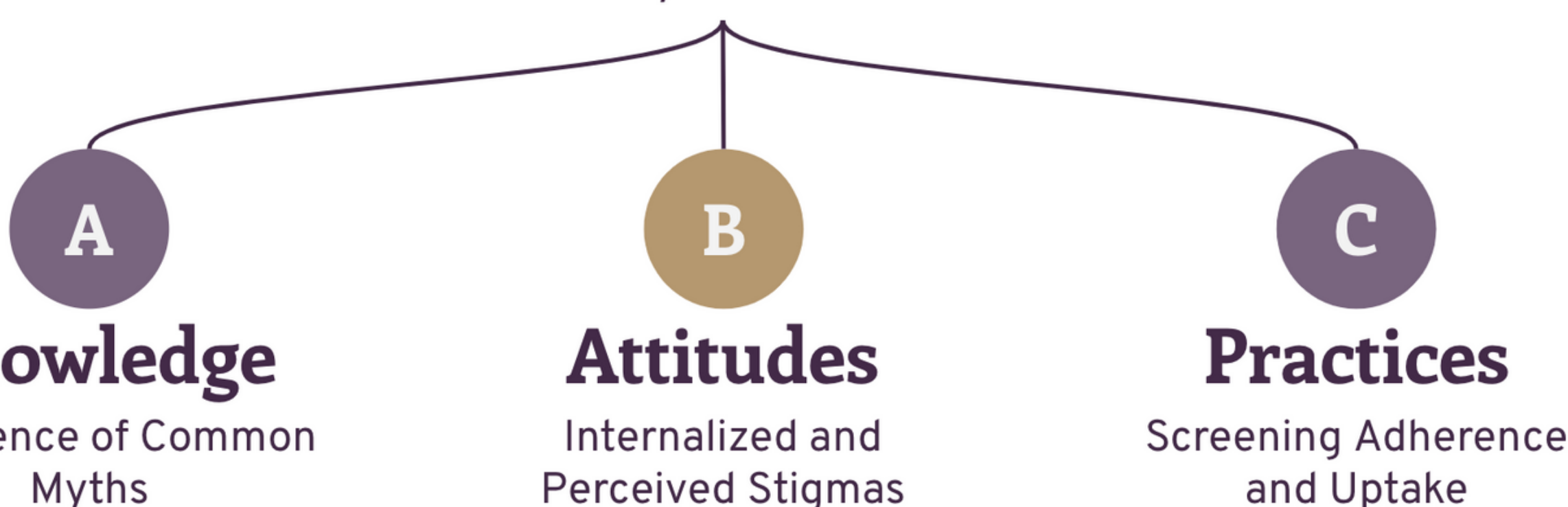
Develop and disseminate culturally adapted interventions

### Theoretical Framework

In order to determine the prevalence of barriers in screening, we developed a KAP-analysis based survey:

#### KAP Analysis

Survey Framework

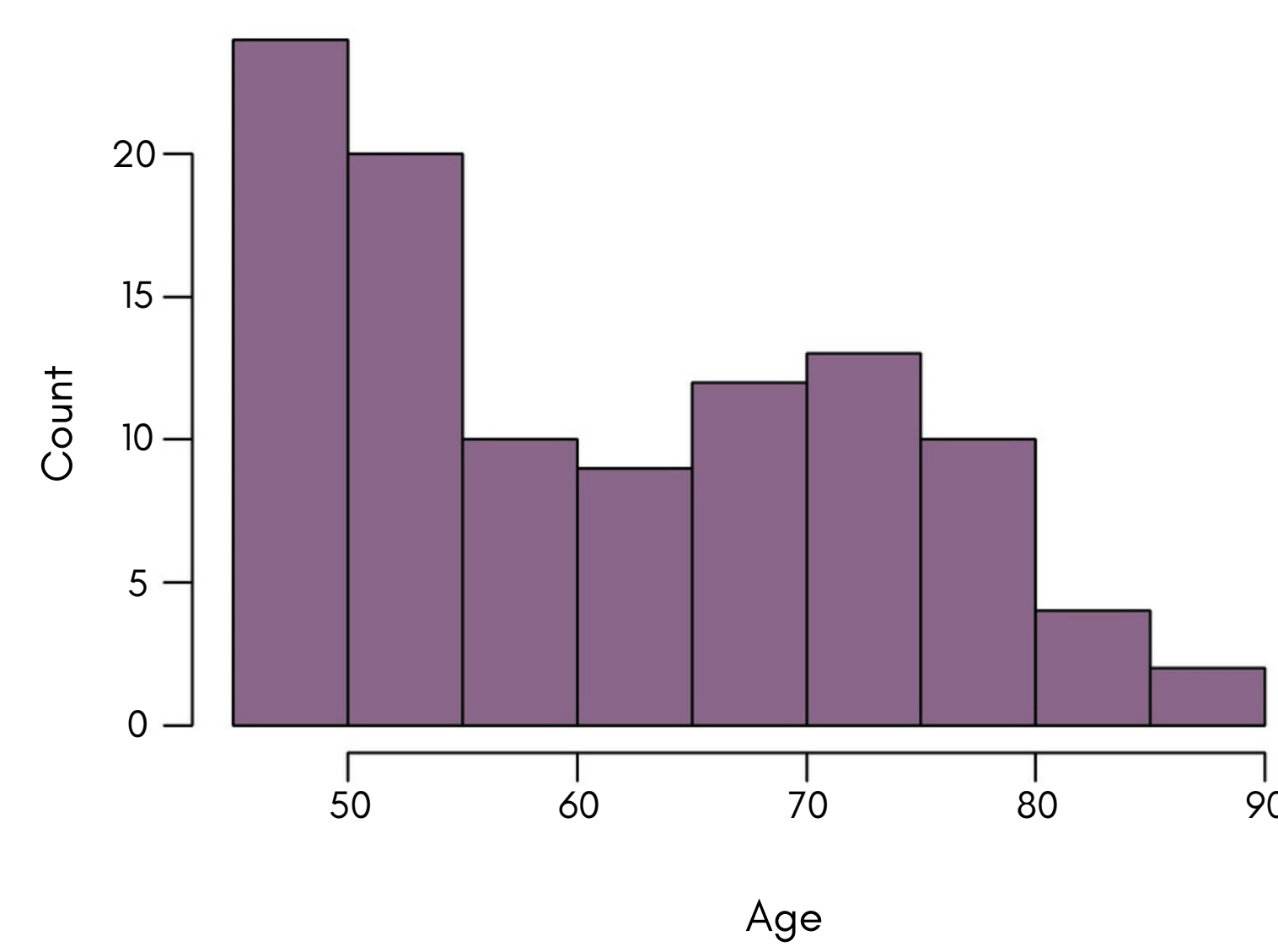


Our model used cumulative **knowledge** and **attitude scores** as **predictor variables** for the **screening adherence outcome variable**.

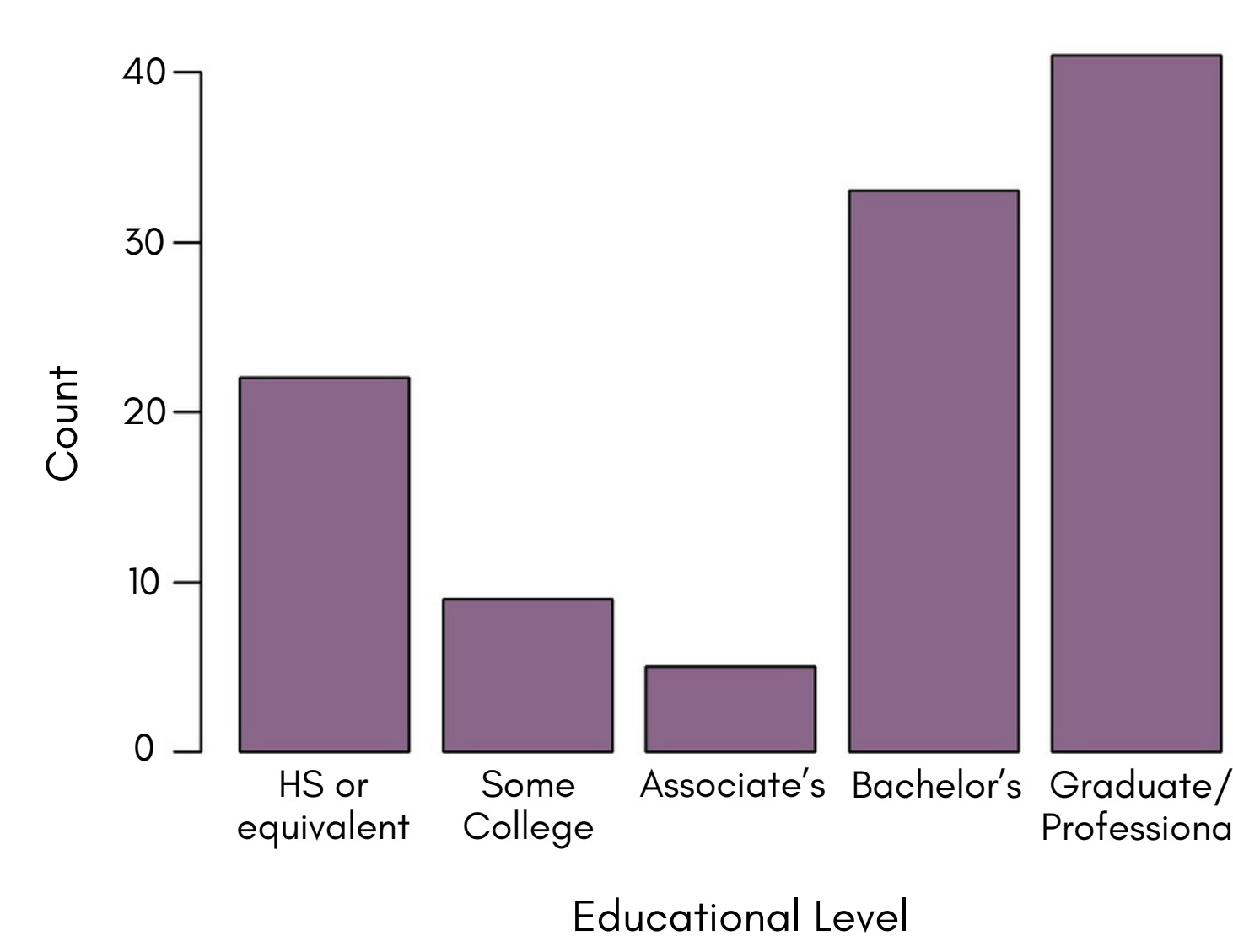
### Results

#### Sample Characteristics

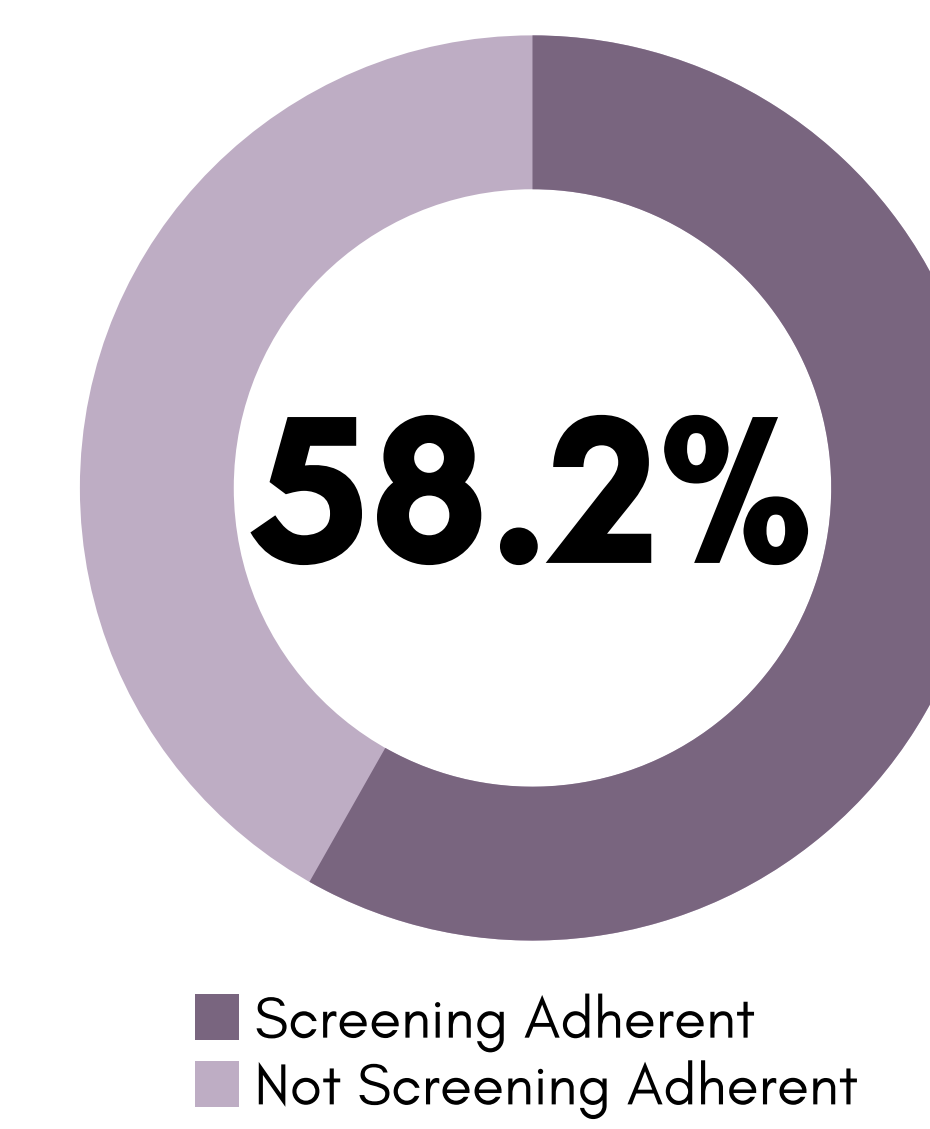
Age Distribution of Respondents



Educational Level of Respondents



Screening Adherence



#### Analysis

Differences in Knowledge and Attitude between Breast Cancer Screening Adherent and Non-Adherent Respondents (Independent T-Test Results)

Predictor Variable	Screening Non-Adherent Mean	Screening Adherent Mean	p-Value	95% CI
Knowledge	1.260	2.556	2.8 x 10 <sup>-8</sup>	[-1.70, -0.89]
Attitude	23.80	7.19	1.6 x 10 <sup>-15</sup>	[13.38, 19.84]
Perceived Stigma	10.556	3.344	9.1 x 10 <sup>-14</sup>	[5.65, 8.77]
Internalized Stigma	4.957	1.172	1.2 x 10 <sup>-14</sup>	[3.01, 4.56]
Sociocultural Barriers	8.178	2.651	9.8 x 10 <sup>-15</sup>	[4.38, 6.68]

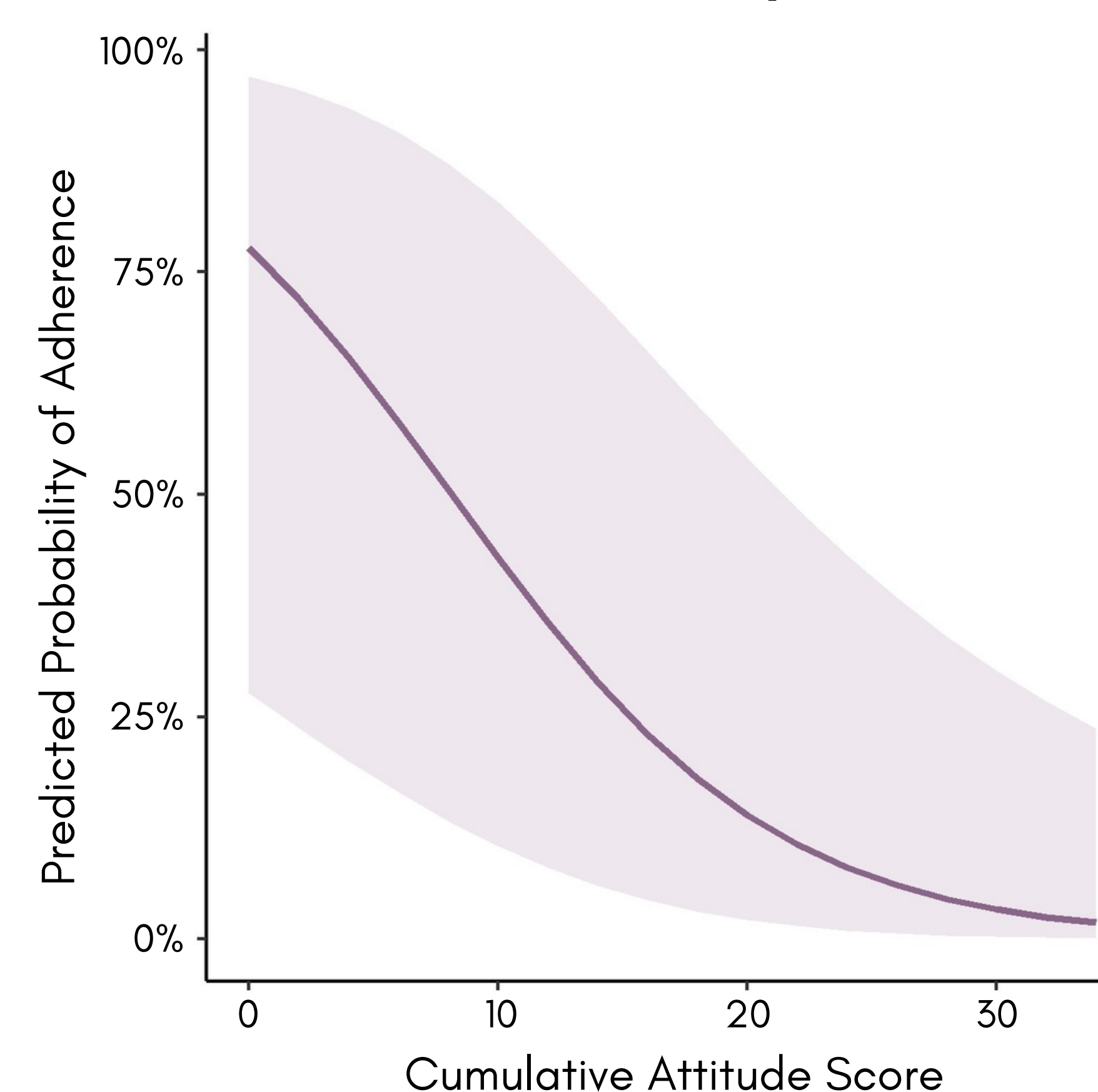
Impact of Knowledge and Attitude on Likelihood to Screen - Binomial Logistic Regression Results

Predictor Variable	Adherence to Breast Cancer Screening Guidelines
Knowledge	0.148 (p = 0.737)
Attitude	-0.154 (p = 0.003) <sup>***</sup>
Age (Binomial)	0.146 (p = 0.841)
Educational Attainment (Binomial)	1.526 (p = 0.058)
Friend/Family Diagnosed	0.315 (p = 0.642)
Marital Status	-1.883 (p = 0.177)

Data presented as: Estimate (p-value)

**Attitude (inclusive of sociocultural barriers and stigmas) was a significant predictor of screening adherence** in Asian Indian women and accounts for the observed variation, while knowledge was not a significant predictor. Thus, **future educational interventions need to keep these differences in mind.**

Effect of Attitude on Probability of Adherence



### Discussion

Main Findings:

- Binomial logistic regression reveals **Attitude** as a **significant predictor of adherence to breast cancer screening** guidelines among Asian Indians in Houston

- Independent t-tests reveal **significant differences in Knowledge and Attitude** between **Asian Indians who adhere** to screening guidelines **and those who do not**

Impact:

- First needs assessment** conducted specifically to **evaluate barriers to breast cancer screening among Asian Indians in Houston**

- Low breast cancer screening uptake** among Asian Indians in **Houston is comparable to that of other major metropolitan areas**<sup>2,5</sup>

### Future Direction

Following the completion of data analysis, the next steps are:



To access a sample educational intervention we have developed based on the collected data, please scan the following QR code:



### References

- Comparing Breast Cancer Screening Rates Among Different Groups. Susan G. Komen®. <https://www.komen.org/breast-cancer/screening/screening-disparities/>
- Boxwala FI, Bridgemohan A, Griffith DM, Soliman AS. Factors Associated with Breast Cancer Screening in Asian Indian Women in Metro-Detroit. *Journal of Immigrant and Minority Health*. 2009;12(4):534-543. doi:<https://doi.org/10.1007/s10903-009-9277-0>
- Islam N, Kwon SC, Senie R, Kathuria N. Breast and Cervical Cancer Screening Among South Asian Women in New York City. *Journal of Immigrant and Minority Health*. 2006;8(3):211-221. doi:<https://doi.org/10.1007/s10903-006-9325-y>

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