

Public Cervix Announcement: A Study Analyzing Cervical Cancer Screening Awareness Among UCSD Female Undergraduates

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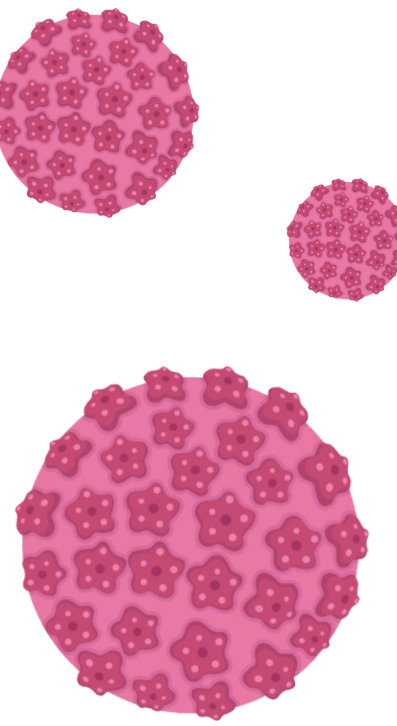


OBJECTIVES

- To assess the level of awareness that may hinder cervical cancer screening among female UCSD undergraduates
- To examine the relationship between social determinants of health (SDOHs) and cervical cancer screening awareness

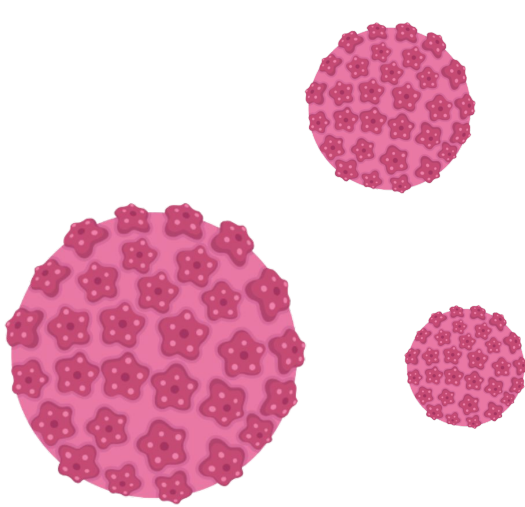
BACKGROUND

Cervical cancer is the uncontrollable growth of abnormal and invasive cervical cells^{1,2}



- In 2025, ~**13,360** women will be diagnosed with cervical cancer and **4,320** of those cases will lead to death³
- Nearly all cases of cervical cancer are caused by **HPV 16** and **HPV 18** strains⁴

A **Pap smear** is a gynecological procedure screening biopsied cervical cells for precancerous or cancerous cell growth⁵



- Early detection through Pap smears has reduced cervical cancer deaths by **50%** and has led to a **91%** five-year survival rate^{6,7}
- 60%** of female college students have never undergone a Pap smear due to low awareness and **61.7%** skip annual checkups⁷
- Previous studies have not examined the recent FDA approval of self-administered HPV test kits with awareness

METHODS

- Study Design:** Cross-sectional study (April - May 2025)
- Target Population:** Female UCSD undergraduate students (**N=83**)
- Convenience Sampling:**
 - Emailing professors and UCSD health centers
 - Donut incentives for direct outreach at library walk
- Instrument:** 26-item Qualtrics survey
 - Exposures Variables:** SDOHs (education, financial stability, healthcare access, and social and community influences)
 - Outcome Variables:**
 - Cervical cancer screening awareness based on current American Cancer Society guidelines
 - Composite score from 5-items and categorized into low (0-1), moderate (2-3), and high (4-5)
- Statistical Analyses:** chi-square test and ordinal logistic regression using SPSS v29

Table 1. Sociodemographic Characteristics of Survey Respondents (N=83)	
Characteristics	n (%)
Age (mean year, standard deviation)	21 (1.6)
Race/Ethnicity	
Asian	37 (44.6)
Hispanic or Latinx	22 (26.5)
White	9 (17.0)
Middle Eastern	4 (4.3)
Black or African American	2 (2.4)
American Indian or Alaska Native	1 (1.2)
Native Hawaiian or Other Pacific Islander	1 (1.2)
Biracial	8 (9.6)
Undergraduate Year	
First (Freshmen)	8 (9.6)
Second (Sophomore)	9 (10.8)
Third (Junior)	19 (22.9)
Fourth (Senior)	43 (51.8)
5th and beyond	4 (4.8)
Insurance Status	
Private	52 (62.7)
Public	24 (28.9)
Dual	4 (4.8)
Uninsured	3 (3.6)
Financial Stability	
Very stable	21 (25.3)
Somewhat stable	51 (61.4)
Very unstable	4 (4.8)
Somewhat unstable	7 (8.4)

Figure 1. Average Perceived Age of First Recommended Pap Smear



21.1 years

Participants were asked to report the screening age they believed recommended

RESULTS

Table 2. Ordinal Logistic Regression Results Predicting Awareness Based on Education, Financial Stability, & Healthcare Access

Predictor	OR (95% CI)	p-value
Undergraduate Year		
First	0.03 (0.002, 0.40)	0.009
Second	0.90 (0.07, 12.25)	0.937
Third	0.30 (0.03, 3.16)	0.314
Fourth	0.99 (0.12, 9.00)	0.992
Financial Stability		
Very Stable	1.89 (0.25, 14.18)	0.535
Somewhat Stable	2.18 (0.34, 14.01)	0.414
Unstable	1.09 (0.06, 19.35)	0.951
Insurance Status		
Uninsured	2.31 (0.07, 74.06)	0.636
Private Insurance	16.7 (1.73, 160.00)	0.015
Public Insurance	21.4 (1.91, 240.00)	0.013

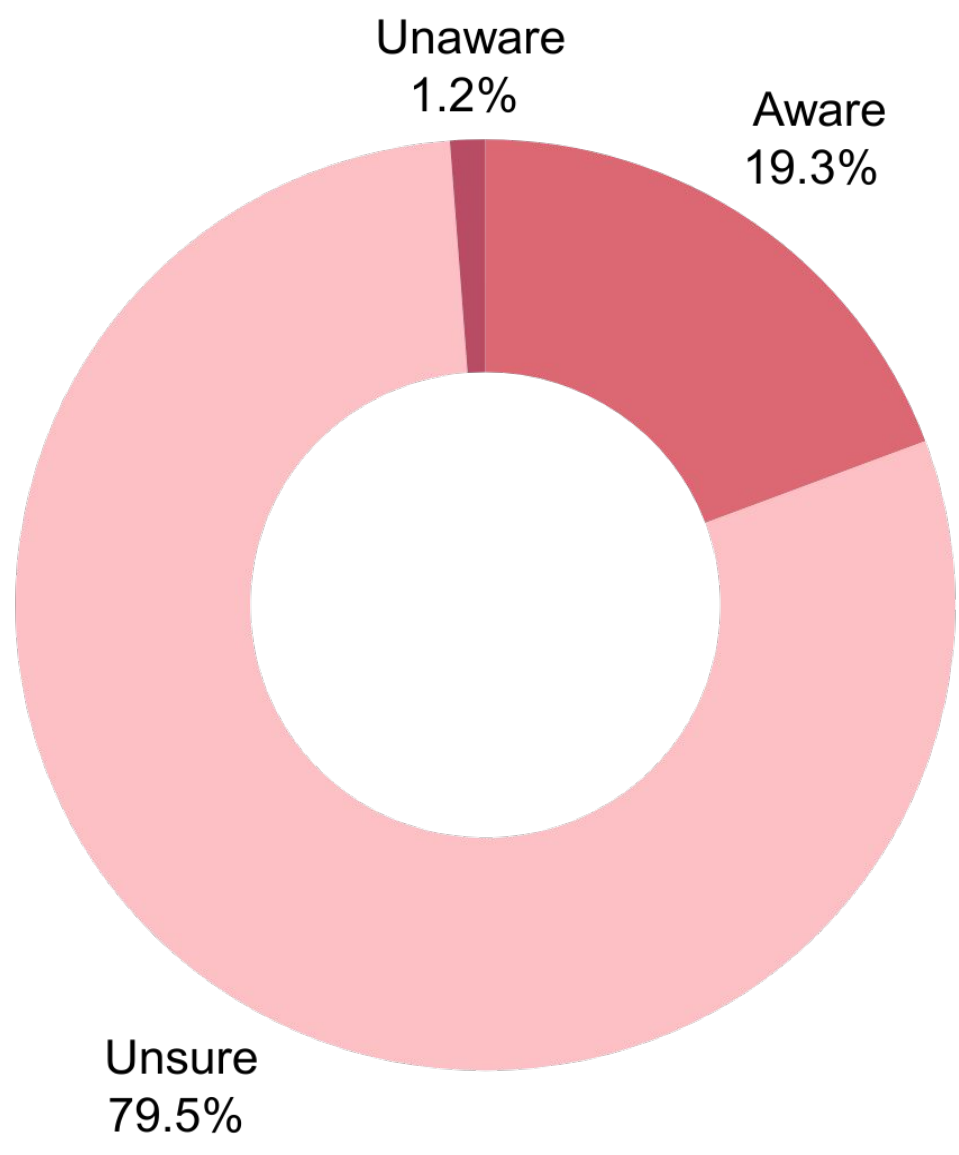
Freshmen were significantly **less likely** to have higher awareness ($p=0.009$). Participants with **private** ($p=0.015$) or **public insurance** ($p=0.013$) were significantly **more likely** to have higher awareness. References for comparison are fifth year and beyond (undergraduate year), somewhat unstable (financial stability), and dual coverage (insurance status)

Table 3. Association Between Methods for Pap Smear Prompting & Awareness of HPV's Relation to Cervical Cancer

Method of Prompting	p-value	χ^2
Never been prompted	0.014	5.984
Prompted by family or friends	0.583	0.301
Prompted by provider	0.081	3.040
Prompted by health portal (e.g. MyChart)	0.215	1.537

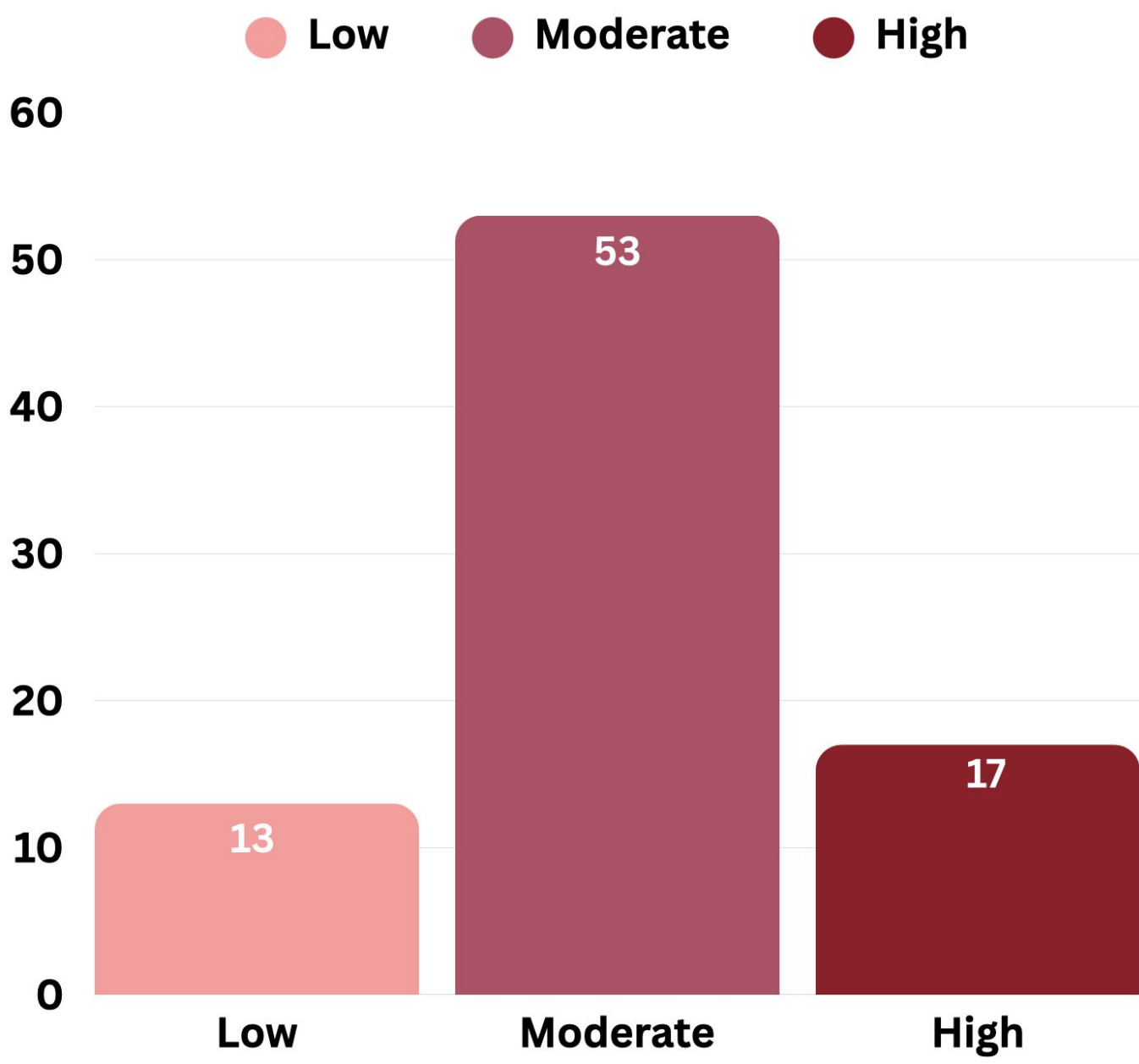
Chi-square test was used to analyze the relationship. Students who had not been prompted for a Pap smear were significantly **less likely** to be aware that HPV is the cause of most cervical cancer cases ($p=0.014$)

Figure 2. Awareness of Free Pap Smear Screenings Through UC SHIP



Only 19.3% were aware of Pap smear screenings offered through UC SHIP at UCSD

Figure 3. Awareness Level of Cervical Cancer Screenings Among Participants



Cervical cancer awareness was assessed using a composite score derived from 5-items, covering recommended screening age, screening purpose, HPV infection, and FDA approved HPV test-kits

CONCLUSIONS

- Participants underestimated the recommended age for first Pap smear, reflecting limited awareness of updated American Cancer Society (ACS) guidelines (25 years). This emphasizes confusion due to conflicting ACS and US Preventive Services Task Force recommendations (21 years)
- Students not prompted for a Pap smear were less aware that HPV causes most cervical cancers (99.7%), underscoring the role of screening awareness in HPV prevention^{1,2,8}
- Seniors showed greater awareness than freshmen, while literature reported low screening knowledge among all levels of college students^{5,6}
- Participants with insurance had higher awareness, consistent with existing literature. However, financial stability showed no link to awareness, challenging prior findings.^{5,6} This may be explained by the unique financial state of undergraduates who are often financially supported by family

POLICY IMPLICATIONS

- On-campus health services can implement student-oriented educational campaigns and health workshops that focus on promoting current recommended screening guidelines and emphasizing HPV's link to cervical cancer
- UCSD can require UC SHIP to send reminders about screening guidelines, appointment scheduling, and exam coverage

ACKNOWLEDGMENTS

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Scan for References!