

# INTERNSHIP REPORT 2019

Prepared by  
Hitomi Kariya  
Graduate Student  
Master of Public Health  
University of Washington

Pacific Hospital  
Preservation &  
Development Authority



# INTRODUCTION

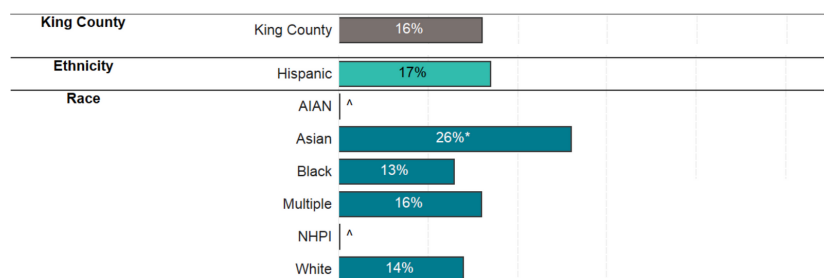
Cervical cancer used to be one of American women's most frequent causes of cancer death, and now ranks 14th in frequency, according to the National Institutes of Health (NIH). The cervical cancer death rate dropped significantly with the increased use of cervical cancer screening (Pap smear).

The United States Preventive Services Task Force (USPSTF) recommends attending Pap smear every three years for women age 21 to 65 years, however, there is a disparity in screening attendance by racial/ethnic group in the United States.

In 2018, King County reported that 26% of women who identified as Asian did not have a Pap smear in the past three years. The group was the largest among all racial/ethnic groups and significantly different from the average rate of King County (16%). However, further research to examine factors associated with the low screening rate has not been conducted.

This report aims to:

1. address social and cultural factors associated with low rates of Pap smear attendance among Asian women in the U.S., based on literature reviews.
2. describe a disparity of Pap smear attendance within Asian women in Washington State, based on Behavioral Risk Factor Surveillance System (BRFSS) data.
3. present recommendations for future research and interventions to increase Pap smear participation among Asian women in King County.



<sup>^</sup> = Data suppressed due to too few cases.

Source: King County Public Health (2018)

AIAN = American Indian/ Alaska Native, NHPI = Native Hawaiian/ Pacific Islander



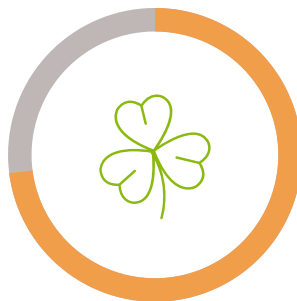
## INTERNSHIP REPORT OUTLINE

1. Potential Factors
2. Disparity among Asian women in WA
3. Recommendations

# POTENTIAL FACTORS



## Lack of Knowledge



## Cultural Beliefs



## Language Difficulties

Asian American populations are reported to be less likely to attend Pap smear compared to other racial/ethnic groups. Wang et al. (2008) examined that Asian American women had a significantly lower rate of attending Pap smear than non-Hispanic White women in the U.S (70% vs. 81%). Lee et al. (2019) also reported that Asian American and Pacific Islanders female college students had a lower rate of Pap smear attendance than non-Latina White female college students (18% vs. 31%). Based on 150 literature reviews, the following key findings are associated with low rates of Pap Smear attendance among Asian women: 1) lack of knowledge, 2) cultural beliefs, and 3) language difficulties.

### 1) Lack of Knowledge

Fang et al. (2011) conducted a systematic review and reported that one of the factors associated with low rates of Pap smear attendance is lack of knowledge: (1) knowledge about cervical cancer; and (2) knowledge about Pap smear. Ho & Dinh (2011) pointed out that there was misinformation about risk factors of cervical cancer among Southeast Asian American populations. For example, some of the Cambodian American women believed that women who were not sexually active did not need to attend Pap smear. Another study conducted focus group interviews among Korean American women and found that many Korean American women were not aware of screening guidelines (Kim et al., 2004).

### 2) Cultural Beliefs

Fang et al. (2011) also suggested that psychological and cultural beliefs are barriers to participate in Pap smear for Asian American women. The researchers identified unique psychological and cultural beliefs among Asian women: (1) belief in fate and luck; and (2) shyness and embarrassment. One study concluded that Asian women who believed that illness was a result of personal fate were less likely to attend Pap smear compared to non-Hispanic White women (Wang et al., 2008). Moreover, many Asian American women hesitate to talk about cervical cancer openly (Lee et al., 2019). The researchers conducted interviews among Vietnamese American women and Korean American women and examined that most of them preferred not to talk about cervical cancer with their family members or peers.

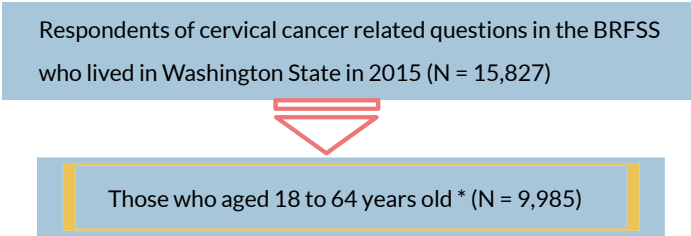
### 3) Language Difficulties

For Asian women who have limited English proficiency, language difficulties hinder them from reaching out to healthcare providers. For example, among Chinese women who aged 50 and older, women with higher English proficiency were more likely to attend Pap smear than those with lower English proficiency (Ji et al., 2010). In a recent study conducted among Chinese American immigrant women by Seo et al. (2017), some of the participants mentioned that they were unfamiliar with the United States health care system and felt vulnerable in the system. Limited English proficiency obstructs Asian immigrant women from seeking for healthcare or health information.

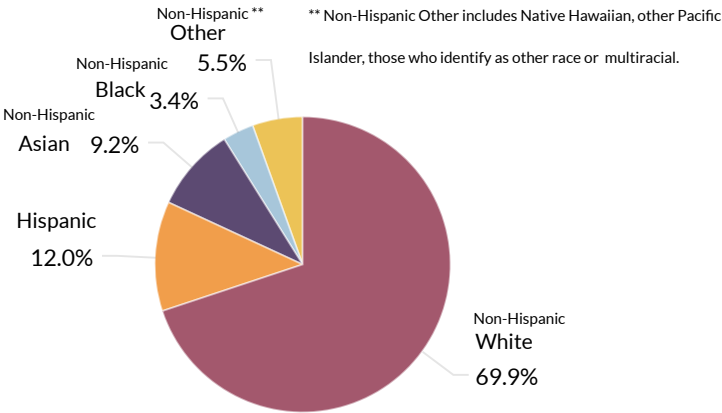
# DISPARITY Among Asian American Women In WA

Previous studies have shown that there are disparities within Asian women in regards to Pap smear attendance. In a large-scale study conducted in California (Lee et al., 2010), the researchers examined that Asian women who were married currently or before were more likely to attend Pap smear than Asian women who had never been married. Ho & Dinh (2011) also pointed out that married women are more likely to attend Pap smear among Southeast Asian American women. In this project, I investigated if there is any difference in Pap smear attendance by women's marital status, comparing Asian women to other racial/ethnic groups in Washington State. A data set of the Behavioral Risk Factor Surveillance System (BRFSS) collected in 2015 was analyzed. BRFSS is a nationwide telephone survey conducted by the Centers for Disease Control and Prevention (CDC).

### Sample Population



\* Ages to attend Pap smear recommended by the U.S. Preventive Services Task Force (USPSTF) is from 21 to 64 years old though the BRFSS data contains those who aged 18 to 64 years old due to the age variable categorization.



### Analysis Method

A Poisson regression model was fit to estimate prevalence ratios (PR), adjusted for age, educational level, employment status, and healthcare coverage. Respondents who reported being married, divorced, widowed, separated, or a member of an unmarried couple were classified as married. Respondents who reported that they have never married were classified as unmarried.

### Result

Among Asian women, married women are 4.9 times more likely to attend Pap smear than unmarried women. The difference in the proportions of attending Pap smear comparing married women to unmarried women is the largest among Asian women; however, this data did not provide statistically enough evidence to conclude that the association between screening attendance and marital status differ for Asian women, compared to other racial/ethnic groups (Likelihood ratio test, p-value > 0.05).

Racial/ethnic groups	Have attended Pap smear within 3 years (Weighted %)	PR, Adjusted [95% CI]
Asian		
Unmarried	30.1	Ref
Married	72.1	4.87 [2.73, 16.25]
White		
Unmarried	61.5	Ref
Married	76.6	1.58 [0.27, 9.73]
Black		
Unmarried	82.0	Ref
Married	86.2	0.75 [0.05, 6.52]
Hispanic		
Unmarried	58.1	Ref
Married	82.0	2.96 [0.52, 25.6]
Other		
Unmarried	54.9	Ref
Married	73.5	1.75 [0.34, 19.36]

Of the Asian respondents, 34% reported they had never been married. The proportion of those who have never been married among the White respondents, Black respondents, Hispanic respondents, Other respondents are 23%, 38%, 31%, 29%, respectively.

Only 30% of unmarried Asian women attended Pap smear in the past three years.



## RECOMMENDATIONS

This is the first research project to examine social and cultural factors associated with low rates of attending cervical cancer screening among Asian American women in Washington State. The findings of this project provide insight to promote cervical cancer screening among Asian women. Asian women are less likely to attend Pap smear, especially those who are unfamiliar with risk factors of cervical cancer or cervical cancer guidelines. Asian women who have strong cultural beliefs in luck or women who feel embarrassed to talk about reproductive health tend not to attend Pap smear as well as women with limited English proficiency. The data analysis conducted in this project also suggests that unmarried women are less likely to attend Pap smear in the state of Washington.

Multicultural organizations and medical centers in Washington State have been providing educational materials for Asian women to learn more about cervical cancer and Pap smear, yet psychological and cultural barriers should be addressed at a deeper level. It is imperative to provide opportunities for Asian women to start a conversation about reproductive health without making them feel embarrassed. Future research should address cultural and psychological differences that exist in subgroups of Asian women.

In addition, setting up opportunities to learn about U.S. healthcare systems and basic English medical terminology may help. Many Asian women who were born outside of the U.S. are not familiar with the complex U.S. healthcare systems, which can hinder them from reaching out to medical providers though most of the medical centers and insurance agencies in the state provide interpreter services. Future research is needed to assess effective ways to implement educational interventions tailored to Asian women's characteristics such as marital status and language difficulties. Conducting focus groups to address psychological and cultural factors should be considered to develop community-based interventions.



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