# The Importance of Talk and Place in Cervical Cancer Prevention

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## Background

Cervical cancer is a highly preventable disease, particularly given the availability of both Pap screening tests and a vaccine against the human papillomavirus (HPV). Despite the ability to prevent cervical cancer, worldwide there are over half a million new cases and a quarter million deaths reported annually (Ferlay, Shin, Bray, Forman, Mathers, & Parkin, 2011).

Hispanics have the highest rate of new cases of cervical cancer each year of any major racial/ethnic group in the United States (Centers for Disease Control and Prevention, 2013). Current guidelines recommend that all women begin regular Pap test screening by age 21 and continue to be screened every 3 years thereafter. However, compliance with screening guidelines (Pap tests) is particularly low among Hispanic women (NCI, 2010).

Doctors and medical professionals are important sources for disseminating information about cervical cancer prevention, especially for Hispanic women (Drewry, Garces-Palacio, & Scarinci, 2010). However, discussion with family and friends has been found to be a more important predictor of perceived efficacy of such cervical cancer prevention measures (Casillas, Singhal, Tsui, Glenn, Bastani, & Mangione, 2011). Additionally, the geographic location of social network contacts may have important implications for women's ability to follow Pap test recommendations.

## Purpose

This study examines the relationship between the social networks of Hispanic women and compliance with cervical cancer screening guidelines. Specifically, this study examines how conversational partners might relate to Pap test compliance and how the geographic location of conversational partners in relation to the ego is associated with Pap test compliance.

## Method

In partnership with Los Angeles-area clinics, we recruited Hispanic women aged 21-50 for a face-to-face survey at clinics and local community sites. Surveys were conducted in either English or Spanish depending on the participant's preference and lasted approximately 45 minutes. Each participant was categorized as compliant with current Pap test screening guidelines (N = 1121) or not compliant (never had a Pap test or no Pap test within the previous three years; N = 511).

The survey included questions about women's interpersonal discussions about health. Specifically, participants were asked to name up to five people with whom they spoke about women's health issues. For each member of their social network, women identified their relationship, whether they talked about Pap tests, and where their conversational partner lived.

Logistic regression was used to analyze the data. Regressions controlled for age, education, insurance status, and whether a doctor or medical professional had encouraged the participant to get a Pap test. Social network partners were entered in a stepwise fashion with entry alpha of .05.

## Results

> When listing the members of their social networks with whom they commonly talked about women's health issues, participants most frequently identified their female friends (35%), sisters (27%), mothers (23%), and husbands, boyfriends, or partners (21%).
> 62% of the people Latinas reported talking to about women's health lived in their household or neighborhood.
> Participants talked about Pap tests with most of the members they specified in their health social networks (87%).
> After controlling for age, education, insurance status, and whether a medical professional had encouraged the participant to get a Pap test, talking with a mother (OR = 1.6) or female friend (OR = 1.2) was related to Pap test compliance.
> Importantly, the higher the proportion of conversational partners who lived in the household or neighborhood, the greater the likelihood of following Pap test guidelines (OR = 1.4).
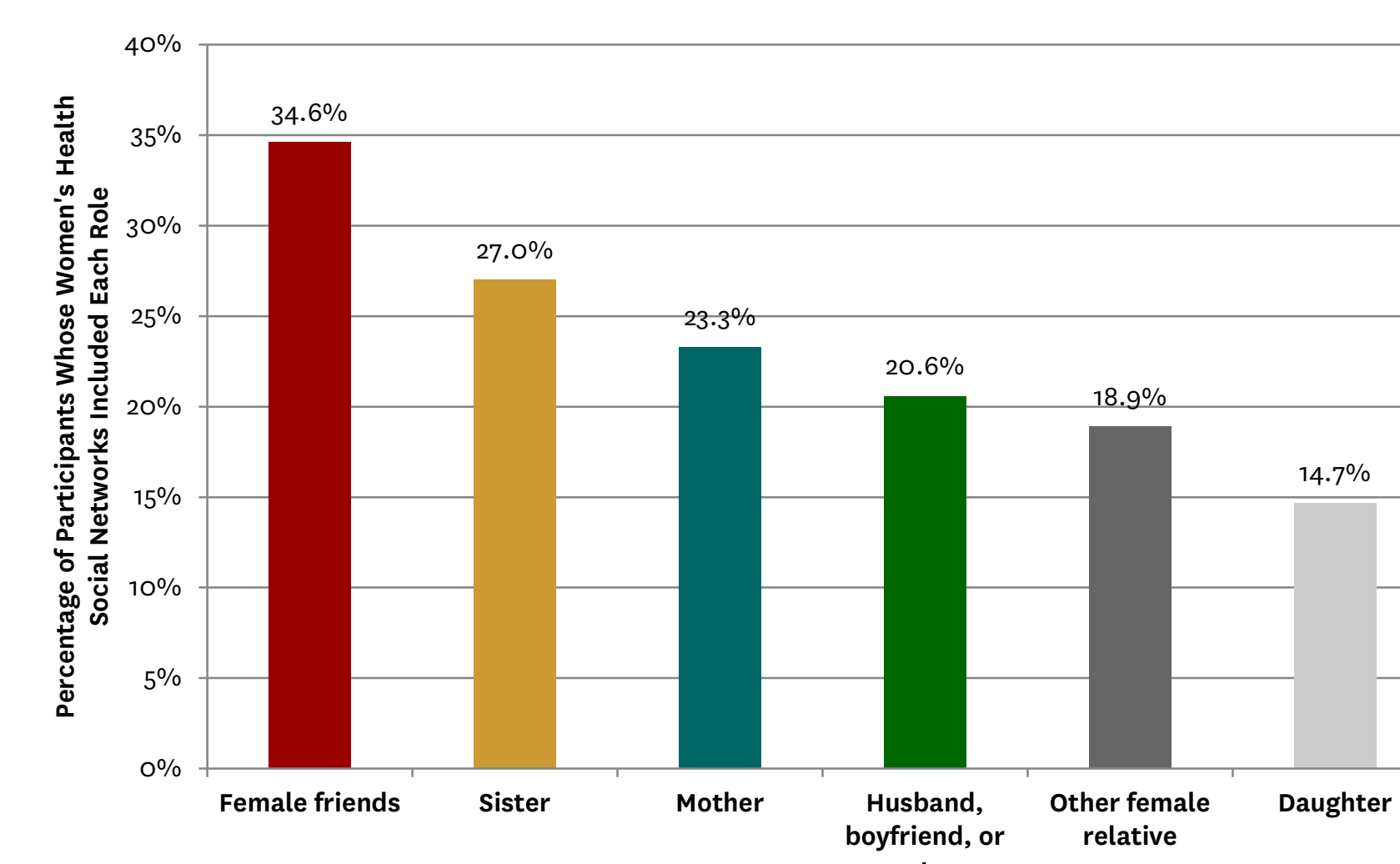
| | Model 1 | | Model 2 | |
|---|---|---|---|---|
| | Odds Ratio | p - value | v | v |
| Age | 1.03 | < .001 | 1.04 | < .001 |
| Education | 0.91 | < .001 | 0.92 | < .001 |
| Health insurance | 2.44 | < .001 | 2.48 | < .001 |
| Doctor encouraged a Pap test | 2.59 | < .001 | 2.56 | < .001 |
| Talking about Pap tests with: | | | | |
| Mother | 1.60 | < .01 | 1.65 | <.01 |
| Female Friend | 1.23 | < .01 | 1.24 | <.01 |
| Proportion of conversational partners who live in the household or neighborhood | | | 1.42 | .03 |

**Table 1.** Logistic regression analyses of the relationship between women's discussion with their social networks and compliance with Pap test screening guidelines.
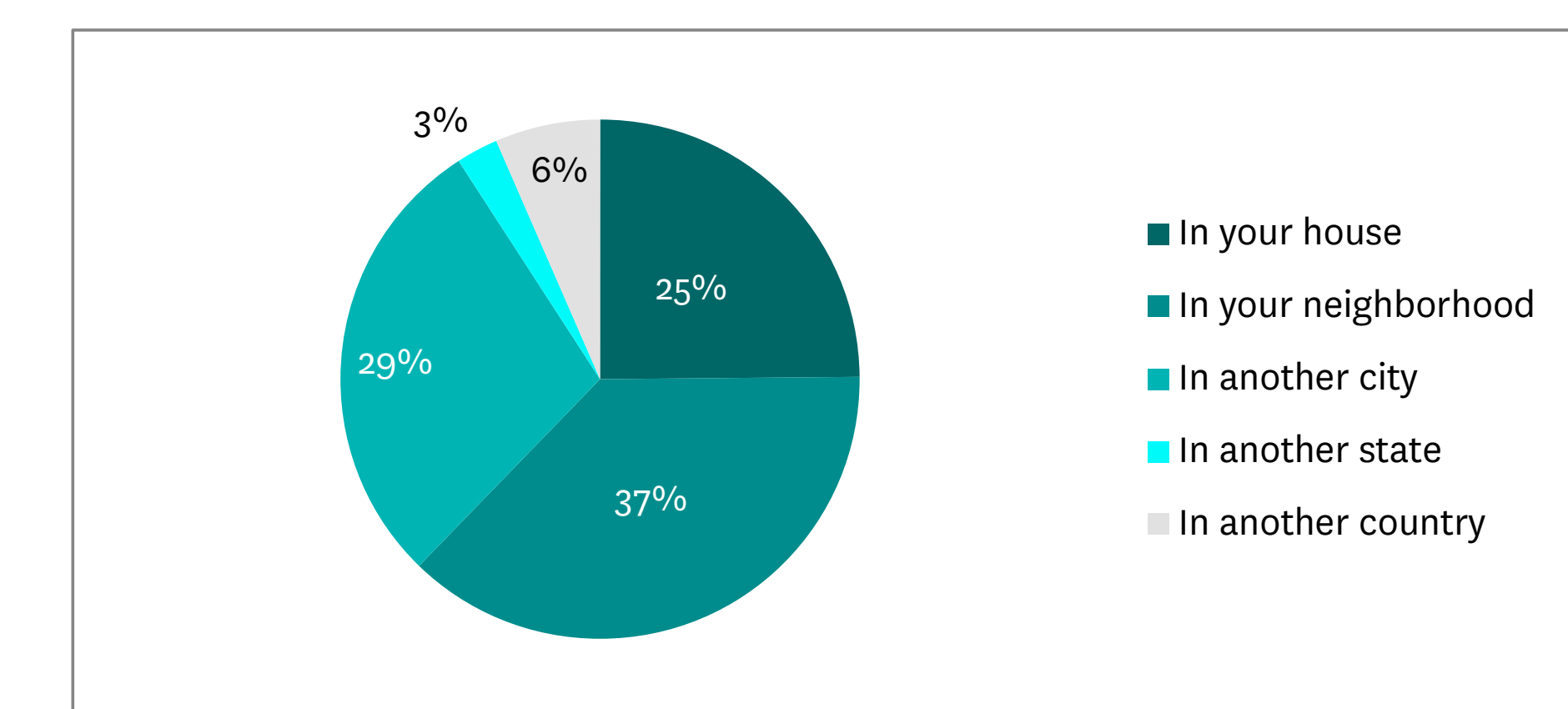

**Figure 1.** People with whom participants discussed women's health issues.


**Figure 2.** Proximity of social network contacts.

## Conclusion

> Talking with social network contacts about Pap tests was associated with Pap test compliance even after controlling for recommendations from a medical professional. The most important relationships identified were mothers and female friends.
> Having social network contacts who live nearby increases the chances that women have had recent Pap tests.
> These results suggest that it may prove beneficial to incorporate local family members and friends when advising patients on cervical cancer prevention activities.
> Encouraging patients to identify members of their health-related social network and encouraging discussion with those individuals may prove a valuable tool.
> Future research should examine whether these effects are as pronounced in other racial/ethnic groups or if this result is largely limited to Latinas.

## Acknowledgments/References

Centers for Disease Control and Prevention. (2013). Cervical Cancer Rates by Race and Ethnicity, from http://www.cdc.gov/cancer/cervical/statistics/race.htm
Casillas, A., Singhal, R., Tsui, J., Glenn, B. A., Bastani, R., & Mangione, C. M. (2011). The impact of social communication on perceived HPV vaccine effectiveness in a low-income, minority population. *Ethnicity & Disease*, 21, 495-501.
Drewry, J., Garces-Palacio, I. C., & Scarinci, I. (2010). Awareness and knowledge about human papillomavirus among Latina immigrants. *Ethnicity & Disease*, 20, 327-333.
Ferlay J., Shin H.R., Bray F., Forman D., Mathers C., & Parkin, D.M. (2011). *Cancer incidence and mortality worldwide in 2008.* Lyon: International Agency for Research on Cancer.
National Cancer Institute. (2010). 2009/2010 Update: Cancer trends progress report. In *Cervical Cancer Screening*, Bethesda, MD: National Cancer Institute.