

Using HINTS Survey Items to Examine HPV Knowledge of US Spanish-Speaking Females Calling NCI's Cancer Information Service

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Statement of Problem

- Cervical cancer is the second most common malignancy worldwide.
- Hispanic women in the US are at increased risk of developing and dying from cervical cancer.
- Necessary cause of cervical cancer is infection with Human Papillomavirus (HPV).
- FDA approved Gardasil for use to prevent cervical cancer for females ages 9-26.
- Insufficient knowledge about HPV and its link to cervical cancer can impact informed decision making regarding screening utilization and vaccine acceptance.

Study Purpose

- To assess awareness of HPV and knowledge of its risk factors in a national sample of Spanish speaking callers to the National Cancer Institute's Cancer Information Service.
- To explore difference of HPV awareness and knowledge among CIS national sample and HINTS respondents.

Methods

Data Source 1:	National Cancer Institute's (NCI) Cancer Information Service (CIS) Spanish Call Center
Data Collection:	July 2007 - March 2008 Cross-sectional survey added to usual service
Analysis Sample:	836 Hispanic female respondents
Response Rate:	52%
Language of Interview:	Spanish
Data Source 2:	HINTS 2008
Data Collection:	January – April 2008 Random digital dial and mail frames Representative sample of US households
Analysis Sample:	375 Hispanic female respondents
Response Rate:	Household Screener: 42.4% Mail Survey: 40%
Language of Interview:	Spanish and English

Survey Items

- Sociodemographic characteristics
- Ethnic identity and acculturation
- Knowledge and awareness of HPV (HINTS)

Data Analysis

NCI CIS Spanish Call Center: SPSS was used to calculate sample estimates. Cross tabulations and chi-square statistics were used to compare differences in demographic and socio-cultural characteristics.

HINTS 2007: SPSS was used to calculate weighted population estimates.

Results

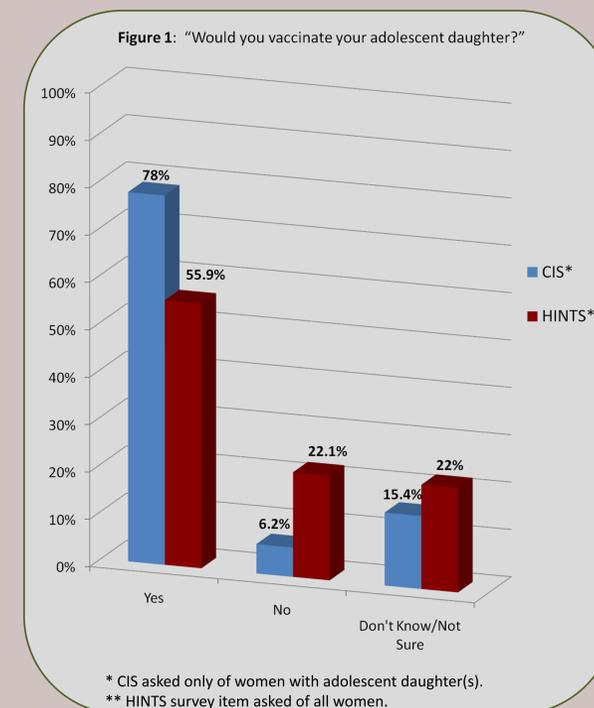
Characteristics	NCI CIS (n=836)		2008 HINTS (n=375)	
	n	%	n	%
Age (years)				
18-44	551	65.9	201	70.4
45+	285	34.1	174	29.6
Ethnicity (n=832)				
Hispanic or Latino	822	98.3	375	100.0
Not Hispanic or Latino	10	1.7	–	–
Education				
Less than High School	259	31.0	102	27.3
High School Graduate	277	33.1	99	26.5
Some College	151	18.1	100	26.7
College Graduate	133	15.9	50	13.4
Graduate School	16	1.9	23	6.1
Household Income (n=702)				
\$20,000+	295	35.3	234	65.5
Less than \$20,000	407	48.7	108	27.9
Health Insurance (n = 833)				
Yes	360	43.1	264	63.9
No	473	56.6	109	36.1
Overall health (n=758)				
Excellent/Good	365	43.7	268	73.9
Fair/Poor	393	47.0	106	26.1
Smoked last 30 days?¹				
Yes	81	9.7	51	15.9
No	755	90.3	317	84.0

¹In HINTS 2007 smoking status defined as current, former, and never; Corresponding percentages shown in the table for current smokers “yes” and former and never “no”.

Characteristics	NCI CIS (n=836)		2008 HINTS (n=375)	
	n	%	n	%
Were you born in the US?				
Yes	61	7.3	205	54.6
No	775	92.7	170	45.4
Country/Region of Birth¹				
Mexico	414	49.5	–	–
Other	422	50.5	–	–
Years in US				
Less than 10 years	370	44.3	45	34.7
Over 10 years /US born	466	55.7	326	65.3
Language usually spoken				
Mostly Spanish and Spanish only	739	88.4	–	–
Predominantly English	97	11.6	–	–
Language spoken with health care provider (n=829)				
Mostly Spanish and Spanish only	610	73.7	–	–
Predominantly English	219	26.3	–	–
Difficulty communicating with health care provider? (n=831)				
Always/Often	101	12.1	–	–
Sometimes/Never	730	87.3	–	–

¹Other includes South America, Central America, Caribbean, USA, Spain

	NCI's CIS Hispanic Callers		2008 Hispanic HINTS	
	n	%	n	%
Have you heard of HPV?				
Yes	581	69.5	236	63.8
No	225	30.5	133	35.9
Don't Know/Missing	0	0	6	0.3
Total	836	100.0	375	100
Have you heard of the HPV vaccine known as Gardasil?				
Yes	380	65.4	224	60.4
No	201	34.6	143	38.5
Don't Know/Missing	0	0	8	1.1
Total	581	100.0	375	100
HPV causes cervical cancer				
Correct	390	67.1	181	78.7
Incorrect	191	32.9	49	21.3
Total	581	100.0	233	100
HPV is sexually transmitted				
Correct	388	66.8	164	70.4
Incorrect	193	33.2	69	29.6
Total	581	100.0	233	100



Conclusions

The relative distribution of certain markers of SES among CIS callers, compared to Hispanic respondents to HINTS, suggests that CIS Hispanic callers are more likely to be disadvantaged than Hispanic respondents to HINTS (see Table 1).

- Nearly half (48.7%) of CIS callers had an annual income of less than \$20K as compared to less than one third of HINTS sample (27.9%)
- Majority of CIS callers (56.6%) did not have health insurance as compared to 36.1% of HINTS sample.

A higher percentage of CIS Hispanic callers, compared to HINTS respondents are foreign born (see Table 2).

- Almost all CIS callers are foreign born (92.7%) versus 45.5% of HINTS sample
- Close to half (44.3%) of CIS callers have lived in US for less than 10 years compared to 34.7% of HINTS sample.

Awareness of HPV was high in both samples; however, a slightly higher proportion of CIS Hispanic callers had heard of HPV (69.5% vs 63.8%) and the HPV vaccine (65.4% vs 60.4%) (see Table 3).

Specific knowledge about HPV was different in the two samples with a higher proportion of HINTS respondents expressing knowledge about the virus' link to cervical cancer and sexual transmission (see Table 3).

- HPV as a cause of cervical cancer (HINTS 78.7% vs CIS 67.1%)
- HPV is sexually transmitted (HINTS 70.4% vs CIS 66.8%)

A greater proportion of CIS Hispanic callers were willing to vaccinate their adolescent daughters than their HINTS counterparts (78% vs 55.9%) (see Figure 1).

Discussion

Both studies interviewed participants after an extensive and unrelated bilingual marketing campaign for Gardasil, the quadrivalent vaccine for HPV prevention. This exposure likely explains the fairly high rates of HPV and vaccine awareness in both samples despite the significant difference in sociodemographic characteristics.

Despite high levels of awareness, even among Hispanic women who heard of HPV, knowledge about the virus was uneven. The CIS callers who are less acculturated and more disadvantaged, appear to understand less about HPV and are unable to identify HPV as an STD and as cause of cervical cancer.

The higher proportion of CIS callers willing to accept vaccination for their adolescent daughters is notable, and consistent with other literature that has found that lower acculturated Hispanics have higher rates of immunization than those who are more acculturated.

Limitations

Despite differences in data collection methods, the two studies provide an interesting point of comparison to illustrate that classifying individuals by ethnicity, in this case as “Hispanic,” can mask notable difference in socio-demographic characteristics as well as in health knowledge and health behaviors.

Such differences have important implications for health literacy and informed decision making regarding screening utilization and vaccine acceptance. Failure to take these issues into account and failure to recognize the heterogeneity of population subgroups can impede health communication efforts aimed at reducing health disparities.