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Introduction

- The primary risk factor for cervical cancer is persistent infection with oncogenic subtypes of human papillomavirus (HPV)
- The development of a prophylactic vaccine to prevent infection with oncogenic types of HPV is an important step in reducing cervical cancer incidence and mortality
- Data suggest that relatively few (12%–26%) adolescent females have initiated the 3-shot HPV series
- Health-enhancing behaviors (such as healthy diet, physical activity) are commonly associated with one another; thus, it is hypothesized that parents who practice healthy lifestyle behaviors will also be more likely to accept immunization against disease for their children
- The primary purpose of this study is to report on national acceptability of the HPV vaccine among U.S. adults with female children in the household and to investigate health behavior correlates of vaccine acceptability. It was hypothesized that HPV vaccine acceptability would be greater among:
 - non-smokers
 - physically active individuals
 - those not reporting use of complementary or alternative medicine (CAM) services
 - women who were adherent to Pap test screening

Methods

Procedure and Sample

- Data were drawn from the 2007 Health Information National Trends Survey (HINTS)
- National probability survey of 7,674 U.S. adults
- One-time telephone or mailed survey
- N = 1,383 individuals who reported having a female child under the age of 18 years in their household

Measures

Acceptability of HPV Vaccine	A vaccine to prevent the HPV infection is recommended for girls aged 11–12 ... If you had a daughter that age, would you have her get it? (no, not sure/it depends, yes)
Demographics	<ul style="list-style-type: none"> Sex: 52% female Age: mean = 40 years Race/ethnicity: 59% white Education: 25% college graduates Income: 47% < \$50,000 Marital status: 70% married Health care coverage: 78% covered
Medical History	<ul style="list-style-type: none"> Personal cancer history Family cancer history Ever treated for genital warts History of HPV infection (women only)
HPV Knowledge and Cancer Beliefs	<ul style="list-style-type: none"> Ever heard of the HPV vaccine Ever heard of HPV Cancer curability Cancer preventability Cancer prevention information overload
Health Behaviors	<ul style="list-style-type: none"> Smoking Physical activity in past month Past year use of "complementary, alternative, or unconventional therapies" Pap test in past 3 years (women only)

Results

Correlates of HPV Vaccine Acceptability

	OR (95% CI)	Yes (%)
Age (years)[†]		
18–29	Ref	68.0
30–39	0.59 (0.32, 1.06)	55.8
40–49	0.49 (0.27, 0.86)	51.3
≥ 50	0.60 (0.33, 1.09)	56.4
Income[*]		
< \$20k	Ref	68.0
\$20k to < \$50k	0.63 (0.36, 1.13)	55.8
\$50k to < \$75k	0.43 (0.18, 1.00)	51.3
≥ \$75k	0.76 (0.35, 1.65)	56.4
Ever heard of HPV vaccine[†]		
No	Ref	51.7
Yes	1.45 (0.98, 2.15)	60.6
Cancer can be cured if caught early[*]		
Strongly disagree	Ref	40.0
Somewhat disagree	2.17 (0.92, 5.09)	58.9
Somewhat agree	1.80 (0.83, 3.90)	54.3
Strongly agree	2.79 (1.24, 6.25)	64.6
Smoking status^{**}		
Never smoker	Ref	51.6
Former smoker	1.62 (1.09, 2.40)	63.0
Current smoker	1.96 (1.24, 3.11)	67.3
Physical activity in past month^{**}		
No	Ref	49.0
Yes	1.65 (1.21, 2.25)	60.9
Past year CAM therapy use^{**}		
No	Ref	60.3
Yes	0.62 (0.43, 0.90)	48.8
Pap test in past 3 years[†]		
No	Ref	43.9
Yes	1.63 (0.95, 2.80)	55.5

[†] p < .10 ^{*} p < .05 ^{**} p < .01

HPV Vaccine Acceptability

No	17.6%
Not sure/it depends	24.9%
Yes	57.5%

Conclusions

- A significant minority of participants were undecided or unwilling to have an 11–12 year old daughter receive the HPV vaccine
- Vaccine acceptability was higher among smokers, physically active individuals, and those who did not report use of CAM therapies
- Further research is needed to better understand how existing health habits may influence the uptake of HPV vaccination and other cancer prevention strategies
- There is a need for additional education and provision of information regarding the potential benefits and risks of the HPV vaccine

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