

I'm a guy: Do I really need a “cervical cancer vaccine?”

Mary Gerend & Tricia Sias
Florida State University
College of Medicine
Society of Behavioral Medicine
April 2009

HPV-related Male Disease

- Genital HPV infections lead to a significant burden of disease in men
- HPV 16 and 18 are important cancer-causing HPV types in men
 - Responsible for the majority of HPV-related penile, anal and oropharyngeal pre-cancers & cancers
- HPV types 6 and 11 cause 90% of genital warts
- Prevalence of HPV infection in men
 - Comparable to rates in women

Incidence of HPV-associated Cancers (U.S.)

Anatomic Area	Average Annual Incidence Count	Incidence (per 100,000)
Cervix	10,846	8.9
Vagina	601	0.5
Vulva	2,266	1.7
Anus & rectum	1,935	1.5
Oropharynx & oral cavity	1,702	1.3
Total (Women)	17,350	14.0
Penis	828	0.8
Anus & rectum	1,083	1.0
Oropharynx & oral cavity	5,658	5.2
Total (Men)	1,568	7.0

Watson et al., 2008, *Cancer*

Data source: National Program of Cancer Registries and SEER

HPV-related Cancer in Men

- Oral cavity/oropharyngeal cancers: largest proportion of HPV-associated cancers in males
 - Increasing incidence
- Low incidence of anogenital cancers in men
 - Incidence of anal cancer in men is increasing
 - Incidence of penile cancer is decreasing
- Routine screening for anal, penile, or oral cavity/oropharyngeal cancers is not currently recommended

Genital Warts

- Incidence and Prevalence
 - Estimated 250,000 cases/year
 - Prevalence: Men > Women
- Risk factors
 - Lifetime numbers of sexual partners
 - Immunocompromised
- Impact quality of life, are often recurrent, and can require extensive treatment

HPV Vaccination

- In the United States, Gardasil® is licensed for girls and women ages 9-26
- **Should the HPV vaccine be offered to boys and men?**
- Vaccinating both genders would:
 - Reduce HPV-related disease burden in males
 - Public health benefit
 - Herd immunity
 - Could reduce HPV transmission to females and thus decrease incidence of cervical cancer

Efficacy Trials

- Gardasil® was shown to be very effective in preventing HPV 6/11/16/18-related **persistent infections** and **genital warts** in men
- Efficacy trials in men are ongoing
 - Outcomes: Anogenital pre-cancers and cancers

HPV Vaccine Acceptability

- Majority of studies have focused on
 - Parents
 - Adolescent and young adult women
 - Health care providers
- Predictors
 - Health beliefs; positive attitudes
 - Physician recommendation
 - Sexual history variables (Being sexually active; lifetime partners; STI history)

Study Objectives

- To assess young adult men's interest in obtaining the quadrivalent HPV vaccine
- To identify correlates and independent predictors of HPV vaccine acceptability
- To examine men's views on the preferred name for an HPV vaccine for men

Methods

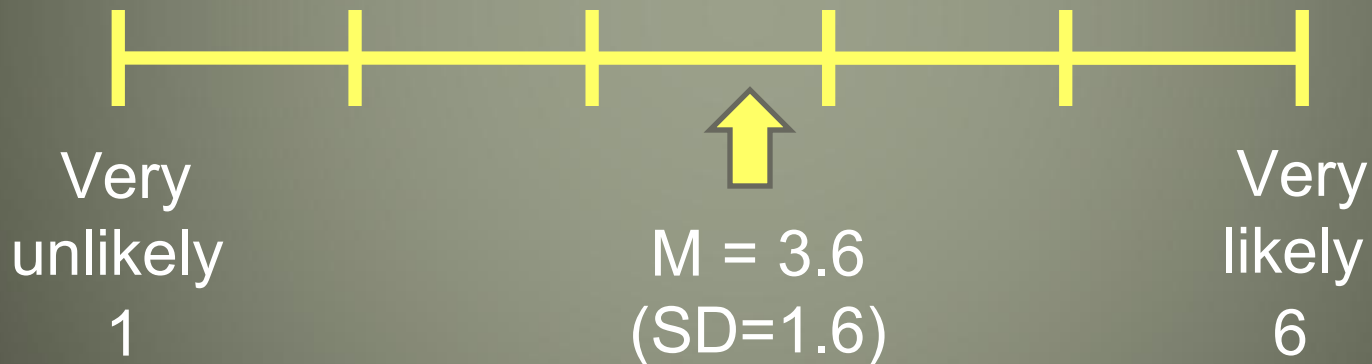
- Male college students ($n = 221$)
- Self-administered survey
 - Demographics & sexual history
 - HPV awareness, knowledge & health beliefs
 - Intentions to receive the HPV vaccine
 - 5-item scale (1=very unlikely to 6 = very likely)
 - Preferred vaccine name
- Men received brief info about HPV and the HPV vaccine before completing the survey

Participant Characteristics

- Age 18-26 M = 19.4; SD = 1.5
- Hispanic/Latino 15%
- White 77%; Black/African American 11%
- Heterosexual 96%
- Ever had sex 81%
 - Current partner 47%
 - Lifetime partners M = 4.8; SD = 6.0 (0-34)
- Heard of HPV 71%

Interest in HPV Vaccination

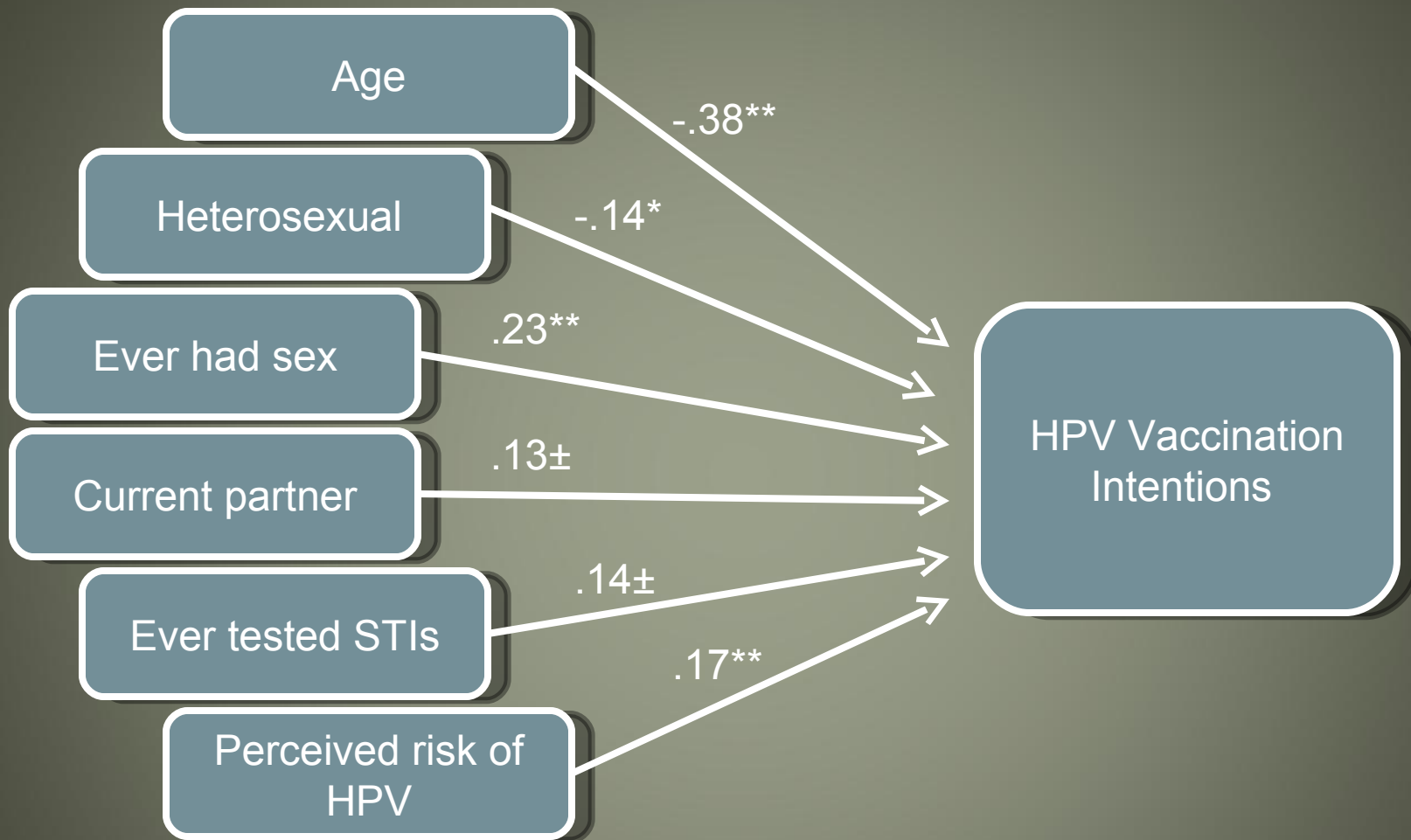
- Men reported moderate interest in HPV vaccination



Correlates of Intentions

Variable	Correlation with Intentions
Age	-.21**
Hispanic	.08
White	-.01
Heterosexual	-.14*
Sexual history variables	
Ever had sex	.31**
Current partner	.24**
Number of lifetime partners	.17**
Ever tested for STIs	.22**
Heard of HPV	.07
HPV knowledge	.21**
Perceived risk to HPV	.28**
Perceived severity of HPV	.02

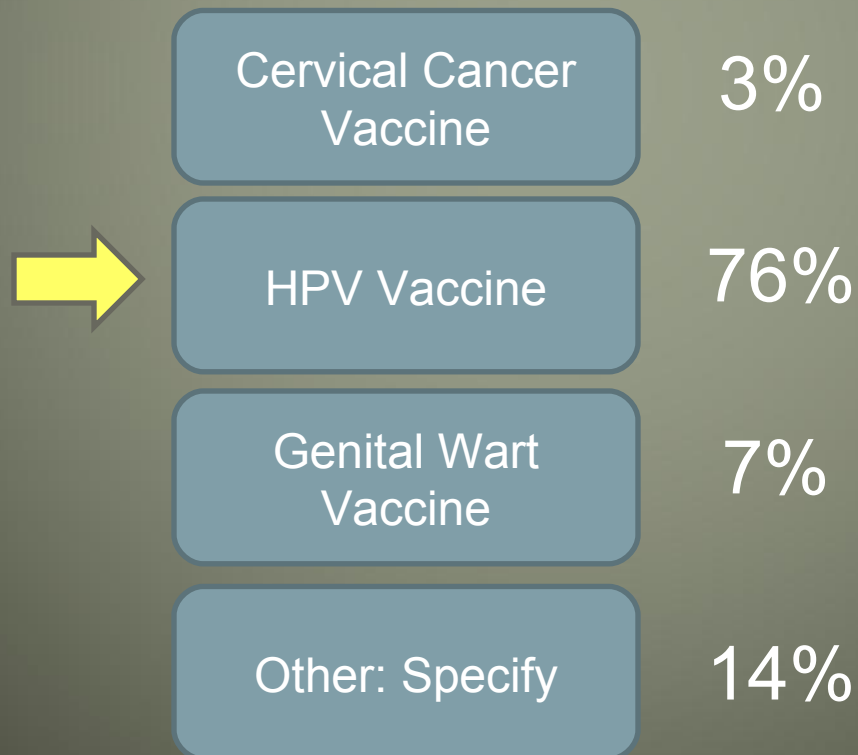
* $p < .05$; ** $p < .01$



± $p < .10$. * $p < .05$. ** $p < .10$

Preferred Name

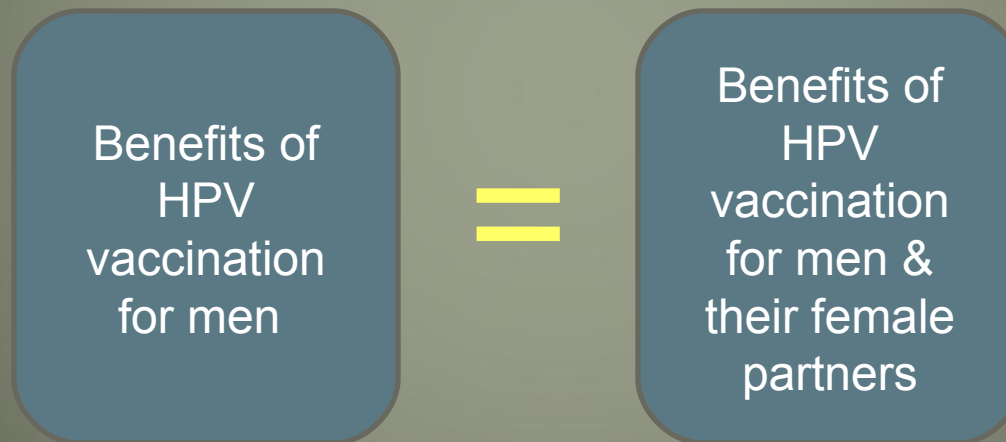
- In your opinion, which of the following would you prefer the vaccine to prevent HPV infection in men be called?



Previous Research

Gerend & Barley, 2009, *STDS*

- 356 heterosexual male college students
- Randomly assigned to read a message



- Intentions to receive the HPV vaccine were equivalent across the two conditions.
- Emphasizing the indirect health benefits to their female sexual partner did not boost men's interest in receiving the HPV vaccine.

Conclusions

- Predictors of HPV vaccine acceptability among young adult men were similar to those identified among women
- Men appear to be fairly favorable toward HPV vaccination
- Marketing the vaccine as the “cervical cancer vaccine” may not be the most effective strategy for promoting uptake in men

Acknowledgments

- Collaborators
 - Tricia Sias
 - Jan Shepherd, MD
- Funding
 - National Cancer Institute
- Contact information:
 - mary.gerend@med.fsu.edu