HPV knowledge & HPV vaccine acceptability among Hispanic mothers of 11-17 year old girls living along the Texas-Mexico border

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Presenter Disclosures

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Background – Cervical Cancer and HPV

- HPV causal agent for cervical cancer (CC)[1]
- CC incidence and mortality rates higher for Hispanic women in Texas' Lower Rio Grande Valley (LRGV) [2-4]
- Early detection of CC possible through Pap test screening
- Prevention of HPV and CC possible with quadrivalent HPV vaccine (Gardasil™)[5]

[1]Walboomers JM et al., Human papillomavirus is a necessary cause of invasive cervical cancer worldwide, *The Journal of Pathology*, 1999, 189(1):12-19. [2]Altekruse SF et al., SEER Cancer Statistics Review, 1975-2007, Bethesda, MD; National Cancer Institute, 2009, http://seer.cancer.gov/csr/1975_2007/. [3]Texas Department of State Health Services CEaSB, Texas Cancer Registry, Cervical Cancer Incidence in Texas, 2003-2007. 2010. [4]Texas Department of State Health Services CEaSB, Texas Cancer Registry, Cervical Cancer Mortality in Texas, 2003-2007. 2010. [5]CDC, Quadrivalent human papillomavirus vaccine: Recommendations of the advisory committee on immunization practices (ACIP), *Morbidity and Mortality Weekly Report*, 2007, 56(RR-2), http://www.cdc.gov/mmwr/pdf/rr/rr5602.pdf

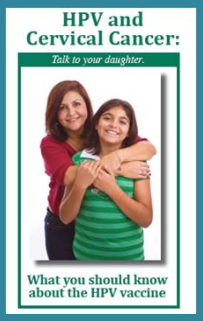
Background – HPV Vaccine

- Recommended for girls and women ages 11-26[6]
- Most effective if given before sexually active[6]
- Possible lifetime reduction CC risk by 20%-66%[7,8]
- Studies show Hispanic parents are accepting of the vaccine; but uptake still low

[6]CDC. Quadrivalent human papillomavirus vaccine: Recommendations of the advisory committee on immunization practices (ACIP), *Morbidity and Mortality Weekly Report*, 2007, 56(RR-2), http://www.cdc.gov/mmwr/pdf/rr/rr5602.pdf. [7]Sanders GD and Taira AV. Cost-effectiveness of a potential vaccine for human papillomavirus. *Emerg Infect Dis* 2003, 9:37–48. [8]Goldie SJ, et al. Projected clinical benefits and cost-effectiveness of a human papillomavirus 16/18 vaccine. *J Natl Cancer Inst* 2004, 96:604–15.

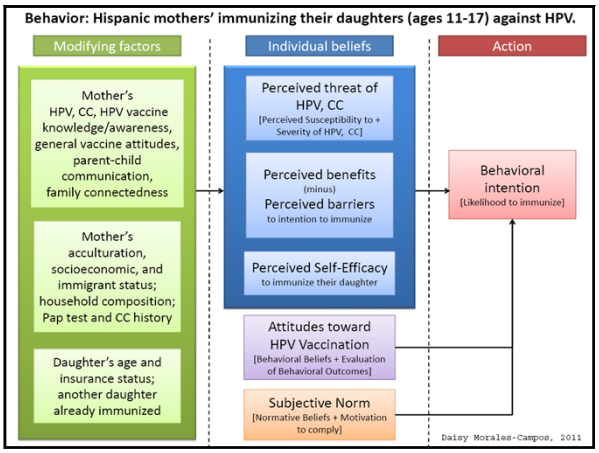
Entre Madre e Hija (EMH) Program

- a cervical cancer prevention and outreach program delivered by *promotoras* (community health workers) and student peer educators.
- *Promotoras* also provide referral and navigation support for HPV immunization to Hispanic mothers and their daughters



Specific Aims

1. *Promotoras* recruit 1,800 mothers and their daughters (ages 11-17) who *never had or have not completed* HPV vaccine dose series.
2. *Promotoras* and peer educators deliver the EMH health education program to groups of mothers and daughters and *collect data to assess its impact on knowledge of cervical cancer risk factors, screening guidelines, and the HPV vaccine*.
3. Research staff assess effectiveness of the EMH program (educations sessions, referrals, and navigation support) on increasing HPV vaccine completion among daughters (*goal = 594 immunized*).



Baseline Survey

Constructs	# Items	Constructs	# Items
HPV		**Cervical Cancer**	
• Awareness	1	• Cervical cancer/Pap test history	3
• Knowledge	11	• Pap test knowledge	1
		• Perceived Susceptibility (mother)	1
HPV Vaccine		• Cancer Attitudes (mother)	4
• Knowledge	2		
• Perceived susceptibility (daughter)	3	**Demographics**	
• Perceived severity (daughter)	7	• Socioeconomic status	5
• General vaccine attitudes/acceptability	6	• Immigrant status	2
		• Household composition	3
• Attitudes/acceptability	7	• Daughter's age, immunization status	4
• Perceived benefits/barriers	9		
• Self efficacy	7	**Parenting Practices**	
• Subjective norms	7	• Parent-child communication	9
• Intentions	4	• Communication openness	12
		• Family connectedness	8

Methods

EMH Study Design

- Single group, pre- and post-surveys

Measures

- Knowledge of HPV and cervical cancer screening
- Attitudes on HPV vaccine

Data Collection

- 10/2011-present
- **Sample:** 217 mothers with baseline data
- **Survey**: Interviewer-administered
- **Electronic/Web-based tools:** Secured online database, netbooks, wireless Internet

Demographics of Mothers (n=217)	
Age, years (mean ± SD)	38.3 ± 7.4
Marital Status	
Married, Common Law	84.7% (183)
Divorced, Widowed, Separated	12.5% (27)
Never married	2.8% (6)
Education	
None	.5% (1)
Grades 1-8	65.1% (140)
Grades 9-12	25.5% (55)
College and more	8.8% (19)
Household Income	
Less than $10,000	81.5% (176)
Greater than $10,001	18.6% (40)
Country of Birth	
Mexico	89.4% (194)
US	9.8% (21)
Year in US (Foreign-born)	13.1 ± 6.8
Language read or spoken	
Only Spanish	90.5% (190)
Both English and Spanish	3.8% (8)
Only English	5.8% (12)

HPV Knowledge Gaps

- 93.9% believed HPV is detected through a Pap test
- 73.1% believed HPV is cured with antibiotics
- 68.0% believed condoms protect a person from HPV
- 83.5% believed HPV affects a woman's ability to get pregnant

Cervical Cancer Screening Guidelines

- 94.3% correctly identified cervical cancer screening guidelines
- 20.3% of mothers who completed the program were never or rarely (3 or more years) screened

HPV Vaccine Attitudes

- 43.2% agreed the vaccine is safe
- 9.8% agreed getting the vaccine encourages girls' to become sexually active
- 75.8% agreed they would vaccinate their daughter if their daughter's doctor recommended it

Conclusion

- Preliminary findings suggest :
  - knowledge gaps exist regarding how HPV is detected, cured, prevented and its effects on the body
  - other factors (e.g., lack of insurance and access to care) may be present for never or rarely screened mothers
  - mothers believed the vaccine to be safe and would vaccinate their daughter if a doctor recommended it.

Recommendations

- EMH may address gaps in HPV knowledge in this population
- *Promotoras* may be an effective delivery channel for providing cervical cancer and HPV education and promoting HPV vaccine uptake and completion
- Future programs/interventions should further investigate the role of the doctor or provider in increasing uptake and completion of the vaccine series

Limitations

- Small sample size
- Respondent burden
- Program initiated prior to recommendation of HPV vaccine for men and boys

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