

**Title:**

Promoting Human Papilloma Virus Immunization Among Adolescents: An Evidence-Based Practice Project Proposal

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**Session Title:**

Rising Stars of Research and Scholarship Invited Student Posters

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**Keywords:**

Adolescent human papillomavirus vaccination, Gynecology consultation and Parental HPV vaccine intent

**References:**

- Gargano, L. M., Herbert, N. L., Painter, J. E., Sales, J. M., Morfaw, C., Rask, K., . . . Hughes, J. M. (2013). Impact of a physician recommendation and parental immunization attitudes on receipt or intention to receive adolescent vaccines. *Human Vaccines & Immunotherapeutics*, *9*, 2627-2633. doi: 10.4161/hv.25823
- Gilkey, M. B. & McRee, A. L. (2016). Provider communication about HPV vaccination: A systematic review. *Human Vaccine & Immunotherapeutics*, *12*, 1454-1468. doi: 10.1080/21645515.2015.1129090
- Gowda, C., Schaffer, S. E., Dombkowski, K. J., & Dempsey, A. F. (2012). Understanding attitudes toward adolescent vaccination and the decision-making dynamic among adolescents, parents and providers. *BMC Public Health*, *12*, 509. doi: 10.1186/1471-2458-12-509
- Holman, D. M., Benard, V., Roland, K. B., Watson, M., Liddon, N., & Stokley, S. (2014). Barriers to human papillomavirus vaccination among US adolescents: A systematic review of the literature. *JAMA Pediatrics*, *168*, 76-82. doi: 10.1001/jamapediatrics.2013.2752
- Markovitz, A. R., Song, J. Y., Paustian, M. L., & El Reda, D. K. (2014). Association between maternal preventive care utilization and adolescent vaccination: It's not just about Pap testing. *Journal of Pediatric and Adolescent Gynecology*, *27*, 29-36. doi: 10.1016/j.jpjag.2013.08.012
- Meites, E., Kempe, A., & Markowitz, L. E. (2016). Use of a 2-dose schedule for human papillomavirus vaccination — Updated recommendations of the Advisory Committee on Immunization Practices. *Morbidity and Mortality Weekly Report*, *65*, 1405-1408.
- Perkins, R. B., Clark, J. A., Apte, G., Vercruyse, J. L., Sumner, J. J., Wall-Haas, C. L., . . . Pierre-Joseph, N. (2014). Missed opportunities for HPV vaccination in adolescent girls: A qualitative study. *Pediatrics*, *134*, e666-e674. doi: 10.1542/peds.2014-0442
- Rahman, M., Elam, L. B., Balat, M. I., & Berenson, A. B. (2013). Well-women visit of mothers and human papillomavirus vaccine intent and uptake among their 9-17 year old children. *Vaccine*, *31*, 5544-5548. doi: 10.1016/j.vaccine.2013.09.017
- Reagan-Steiner, S., Yankey, D., Jeyarajah, J., Elam-Evans, L. D., Curtis, R., MacNeil, J., . . . Singleton, J. A. (2016). National, regional, state, and selected local area vaccination coverage among adolescents aged 13–17 years — United States, 2015. *Morbidity and Mortality Weekly Report*, *65*(33), 850-858.

Smulian, E. A., Mitchell, K. R., & Stokley, S. (2016). Interventions to increase HPV vaccination coverage: A systematic review. *Human Vaccine & Immunotherapeutics*, 12, 1566-1588. doi: 10.1080/21645515.2015.1125055

The Centers for Disease Control and Prevention (2013, February). *Incidence, prevalence, and cost of sexually transmitted infections in the United States* [Fact sheet]. Retrieved from <https://www.cdc.gov/std/stats/sti-estimates-fact-sheet-feb-2013.pdf>

The Centers for Disease Control and Prevention (2013, July). Human papillomavirus vaccination coverage among adolescent girls, 2007–2012, and postlicensure vaccine safety monitoring, 2006–2013 — United States. *Morbidity and Mortality Weekly Report*, 62, 591-595.

The Centers for Disease Control and Prevention (2016, December). *HPV Vaccine Information for Clinicians* [Fact sheet]. Retrieved from <https://www.cdc.gov/hpv/hcp/need-to-know.pdf>

The President’s Cancer Panel (2014). *President’s Cancer Panel Annual Report 2012-2013*. Retrieved from [https://deainfo.nci.nih.gov/advisory/pcp/annualReports/HPV/PDF/PCP\\_Annual\\_Report\\_2012-2013.pdf](https://deainfo.nci.nih.gov/advisory/pcp/annualReports/HPV/PDF/PCP_Annual_Report_2012-2013.pdf)

**Abstract Summary:**

Despite CDC recommendations, adolescent uptake of cancer-preventing HPV vaccine remains suboptimal. Research suggests that provider’s recommendations are able to increase vaccination rates. The project proposal will provide and assess an educational intervention in gynecology practices.

**Learning Activity:**

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to explain the importance of provider-parent communication in driving parental decision to vaccinate children against HPV	1) CDC recommendations on HPV vaccine 2) Healthy People 2020 Goal 3) The relationship between failure of timely HPV vaccination and children's future risk of HPV-related cancers 4) Lack of strong recommendations from providers as the top reason that parents do not vaccinate their children
The learner will be able to justify role of women's health providers to increase adolescent HPV vaccination rates	1) Parental GYN visits as opportunities for promoting adolescent HPV vaccination 2) Use of message framing for increasing strength of provider recommendations 3) Providers' implementation of interventions (Pamphlet and parental counseling)

**Abstract Text:**

**Problem:** Despite the Centers for Disease Control and Prevention (CDC)'s guideline on routine human papillomavirus (HPV) vaccination at age 11, the vaccination coverage rates for both genders by age 13 to 15 remain lower than 50% in New York City, imposing risk of future HPV-related cancers among unprotected children. Many pediatric providers do not provide parents with strong recommendations and thus, parents are not likely to immunize their children.

**Goal:** To increase HPV vaccination rates of boys and girls aged 11-17 years.

**Objective:** To increase parental acceptance of provider recommendations for teenage HPV vaccination.

**Literature:** Providers' strong recommendations were reported as the key parent-focused intervention to promote adolescent HPV vaccine. Research also supported the recommendation message by emphasizing the vaccine efficacy in future HPV-related cancer prevention. Parental attitudes and beliefs about adolescent HPV were validated measures of the intervention effectiveness.

**Design:** Based on evidence in the literature, gynecology providers will give the mothers' of vaccine-eligible adolescents strong recommendations on adolescent HPV vaccination during gynecology consultation. The high efficacy of timely HPV vaccine in preventing future HPV-related cancers will be emphasized in the provider-mother conversations. Parents will be given a 2-page CDC supplemental leaflet about teenage HPV vaccination before the consultation.

**Methods:** The project is a one-group pretest-posttest design in a local gynecology outpatient clinic. A convenience sample of 20 patients who have children 11-17 years old will, following IRB approval, be invited to complete a 46-item 7-point Likert HPV Attitude and Beliefs Scale developed by Perez and colleagues (2016) before and after intervention.

**Data Analysis:** Descriptive statistics will be used and pre- and post-data will be compared by Wilcoxon signed ranks test at a 95% confidence level.

**Recommendations:** If the proposed intervention works, HPV vaccine promotion among parents should be expanded into gynecology settings. If the intervention does not work, additional interventions will be explored to improve the skills of pediatric providers in giving strong recommendations about adolescent HPV vaccination to parents.