

2015

# Increasing Awareness of the HPV Vaccine

Jonathan M. Hernandez  
UVM COM

Follow this and additional works at: <https://scholarworks.uvm.edu/fmclerk>



Part of the [Medical Education Commons](#), and the [Primary Care Commons](#)

---

## Recommended Citation

Hernandez, Jonathan M., "Increasing Awareness of the HPV Vaccine" (2015). *Family Medicine Clerkship Student Projects*. 104.  
<https://scholarworks.uvm.edu/fmclerk/104>

This Book is brought to you for free and open access by the Larner College of Medicine at ScholarWorks @ UVM. It has been accepted for inclusion in Family Medicine Clerkship Student Projects by an authorized administrator of ScholarWorks @ UVM. For more information, please contact [donna.omalley@uvm.edu](mailto:donna.omalley@uvm.edu).

# INCREASING PUBLIC AWARENESS & KNOWLEDGE OF THE HPV VACCINE

Thomas Chittenden Health Center (TCHC)

Jonathan Hernandez

November 2015

Project mentors: Dr. Pam Dawson, Dr. Dan Donnelly

# PROBLEM

- ▶ More preteens and teens could be receiving the HPV vaccine
  - ▶ Guidelines recommend ages 9 – 26
- ▶ At TCHC, there were largely 2 camps of unvaccinated children I saw:
  - ▶ Those whose parents held personal beliefs about the vaccines or the immune system
  - ▶ Those who had not yet been educated on HPV or the vaccine
- ▶ Most patients I saw in their 20s had started the vaccine
- ▶ The majority of preteens and teens I saw had not received the HPV vaccine
- ▶ It may be too late to wait until patients can decide for themselves
- ▶ The parents that are lacking education should be identified and receive it
- ▶ It may be impossible to change some patient's personal beliefs

# COST & BURDEN IN U.S.

- ▶ Cost of HPV infection for both men and women [1]
  - ▶ Estimated lifetime total cost ages 15–24 y.o. = \$2.9 billion
  - ▶ Treatment of anogenital warts in all age groups in year 2000 = \$167.4 million
  - ▶ Only HIV is more expensive in terms of STI
- ▶ Cost of annual cervical screening and treatment for HPV-related disease [2]
  - ▶ Estimated avg. \$26,415 per 1000 women
  - ▶ Ages 20 – 29 avg. \$51,863 per 1000 women due to higher prevalence
  - ▶ Estimated \$3.4 billion annually
  - ▶ 90% of cost attributed to strategies for prevention
    - ▶ Treatment of precancerous lesions
    - ▶ Routine paps and guideline recommendations
  - ▶ 10% of cost due to treatment of cancer

# COMMUNITY PERSPECTIVE

- ▶ MA, 18F, patient at TCHC
  - ▶ Currently 8 months pregnant and unvaccinated against HPV
  - ▶ Did not get vaccine because she is afraid of needles
  - ▶ Was not aware that HPV could cause cancer or how common it is
  - ▶ Willing to receive vaccine after receiving educational information
  - ▶ May already be too late for MA given she is already sexually active
  
- ▶ IW, 16F, patient at TCHC
  - ▶ Currently unvaccinated
  - ▶ Mother does not want vaccine because she believes “body can fight the infection”
    - ▶ Interestingly she requested a flu vaccine
  - ▶ IW stated “I’m not of legal age to be sexually active”
  - ▶ When counseled alone and provided educational information, Ivy changed her mind
  - ▶ We still need to convince Ivy’s mother

# INTERVENTION

- ▶ Target under-educated population with patient handout
  - ▶ Under-educated = does not know about complications of HPV infection
- ▶ Educate all patients ages 9 – 26 and their parents
- ▶ Specifically address in lay terms 3 main areas:
  - ▶ Define what HPV is
  - ▶ Describe what HPV can cause
  - ▶ Explain why the HPV vaccine is recommended for children
- ▶ Provide additional sources of information

# RESPONSE

- ▶ The most common reason for declining vaccine after receiving educational information was due to a parent's personal beliefs
- ▶ Among unvaccinated patients who were unaware of HPV complications, most were willing to receive vaccine after receiving educational information
- ▶ Most preteens and teens were willing to receive vaccine when counseled alone, but they always deferred to the parent's decision
- ▶ Parent's personal beliefs against vaccines were wide ranging:
  - ▶ "lack of safety data"
  - ▶ "body can fight the infection"
  - ▶ "not sexually active yet"

# EFFECTIVENESS & LIMITATIONS

- ▶ The intervention was effective in the population of patients that had not been informed of the potential complications of HPV infection
- ▶ The intervention was not effective when a parent declined due to personal beliefs against the vaccine
- ▶ The results were limited by a small sample size:
  - ▶ TCHC is not primarily a pediatric clinic
  - ▶ The length of the intervention thus far has only been 5 weeks
- ▶ The intervention is also challenged by the fact that decision making capacity is deferred to parents in most of the target patients



# RECOMMENDATIONS

- ▶ Really focus on targeting parents with education when children reach the age of 9, which is current recommended guideline
  - ▶ Most persuasive point = increased efficacy when given at younger age
- ▶ The intervention is effective in the right population
  - ▶ Identify those who have not received educational information
  - ▶ Assume everyone is under-educated until they are vaccinated
- ▶ It may be impossible to change some patient's personal beliefs
  - ▶ Provide these patients with educational information and support their decision
- ▶ Unfortunately some patients are at risk due to their parent's decisions
  - ▶ Counsel these patients alone at every visit and provide educational information
  - ▶ Given time patients whose parents decline may request on their own

# REFERENCES

- ▶ 1. Insinga RP, Glass AG, Rush BB. The health care costs of cervical human papillomavirus—related disease. *American Journal of Obstetrics and Gynecology*. 2004;191(1):114–120.
- ▶ 2. Chesson HW, Blandford JM, Gift TL, Tao G, Irwin KL. The estimated direct medical cost of sexually transmitted diseases among American youth, 2000. *Perspectives on Sexual and Reproductive Health*. 2004;36(1):11–19.
- ▶ 3. Villa LL, Ault KA, Giuliano AR, et al. Immunologic responses following administration of a vaccine targeting human papillomavirus Types 6, 11, 16, and 18. *Vaccine* 2006; 24:5571.
- ▶ 4. Uptodate searches: Recommendations for the use of human papillomavirus vaccines, *Epidemiology of HPV infection*
- ▶ 5. <http://www.cdc.gov/hpv/>