



# Lessons Learned from HPV Vaccine Study Among Young Adult Women and Men

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Racial and ethnic differences in HPV knowledge, attitudes, and vaccination rates among low-income African-American, Haitian, Latina and Caucasian young adult women and Men

# Purpose

- To examine facilitators and barriers to HPV vaccine uptake in African-American, Haitian, Latina, and White women and men ages 18-22 and
- To determine vaccination completion rates among participants over 5 years.

# Design

- Using semi-structured interviews and medical record review, we assessed HPV knowledge and attitudes towards HPV vaccination among young women and young adult men.
- We then determined their subsequent HPV vaccination initiation and completion rates.
- We used constructs from the Health Belief Model and methods based in grounded theory and content analysis to identify attitudes towards HPV vaccination cues to initiate vaccination, and perception of HPV vaccine.

# Results: Young Women Study

- We enrolled 132 African-American, Haitian, Latina, and White women aged 18- 22 years who visited an urban academic medical center and two affiliated community health centers between the years 2007 and 2012
- Of 132 participants, 116 (90%) stated that they were somewhat or very likely to accept HPV vaccination if offered by their physician, but only 51% initiated the vaccination over the next 5 years.
- Haitian women had the lowest mean knowledge scores out of 8 (3.1HI, 4.5 AA, 4.8Latino and 6.1 Whites;  $p=0.0002$ ) and were the least likely to report having heard of HPV infection (72%) compared with White (100%), African-American (87%) and Latina (85%) women ( $p=0.05$ ).
- Despite low knowledge, all women reported high levels of trust (90%) in physicians and were willing to vaccinate if recommended by their physicians.

# *HPV Vaccination Intent and Receipt – Young Women*

- The majority of patients (90%) stated that they were “somewhat” or “very likely” to accept the HPV vaccine if recommended by their physician
- Yet, only 51% of participants who expressed intent to vaccinate received the first dose HPV vaccination following the interview
- Knowledge about HPV infection and vaccination and intent to vaccinate were the only predictive factors in the receipt of HPV vaccination

# *Perceived Barriers: Concerns about HPV vaccine – Young Women*

- Despite recognizing the benefits of HPV vaccination, participants also revealed perceived barriers to vaccination.
- *Those barriers included:*
  - fear of endorsement of sexual behavior,
  - a false sense of security
  - fear of infection of HPV from vaccination/counter-effect of the vaccine
  - limited knowledge or need for more information, needle phobia
  - cost of vaccine
  - low perceived risk due to sexual inactivity

# Results: Young Men Study

- 89 men participated (35% African-American 29% Haitian, 20%Hispanic, and 16% White).
- Knowledge surveys revealed limited knowledge about HPV and HPV vaccine.
- However, over 90% of young men intended to accept HPV vaccination if offered by their physicians.
- Actual vaccination rates as determined by medical record review were low (23%).
- Young men with fewer than two lifetime sexual partners, and those who had previously declined a vaccine had lower intent to vaccinate.

# Perceived Barriers to HPV Vaccination – Young Men

- Participants from all ethnic groups perceived benefits to HPV vaccination, but differed in their perceptions of barriers to vaccination
- Perceived barriers to HPV vaccination
  - Potential barriers to vaccination were categorized into side effects, inadequate knowledge, low perceived risk, and vaccine costs.
    - Their responses reflected a misunderstanding of HPV as affecting promiscuous individuals only.
      - One Haitian man said, *“I tried to figure out how it’s caused...I don’t think I should have anything if I’m only having sex with nobody else but my one—my girlfriend.”*
      - One Caucasian male declined the vaccination because he practiced safe sex: *“I typically wear condoms ...”*

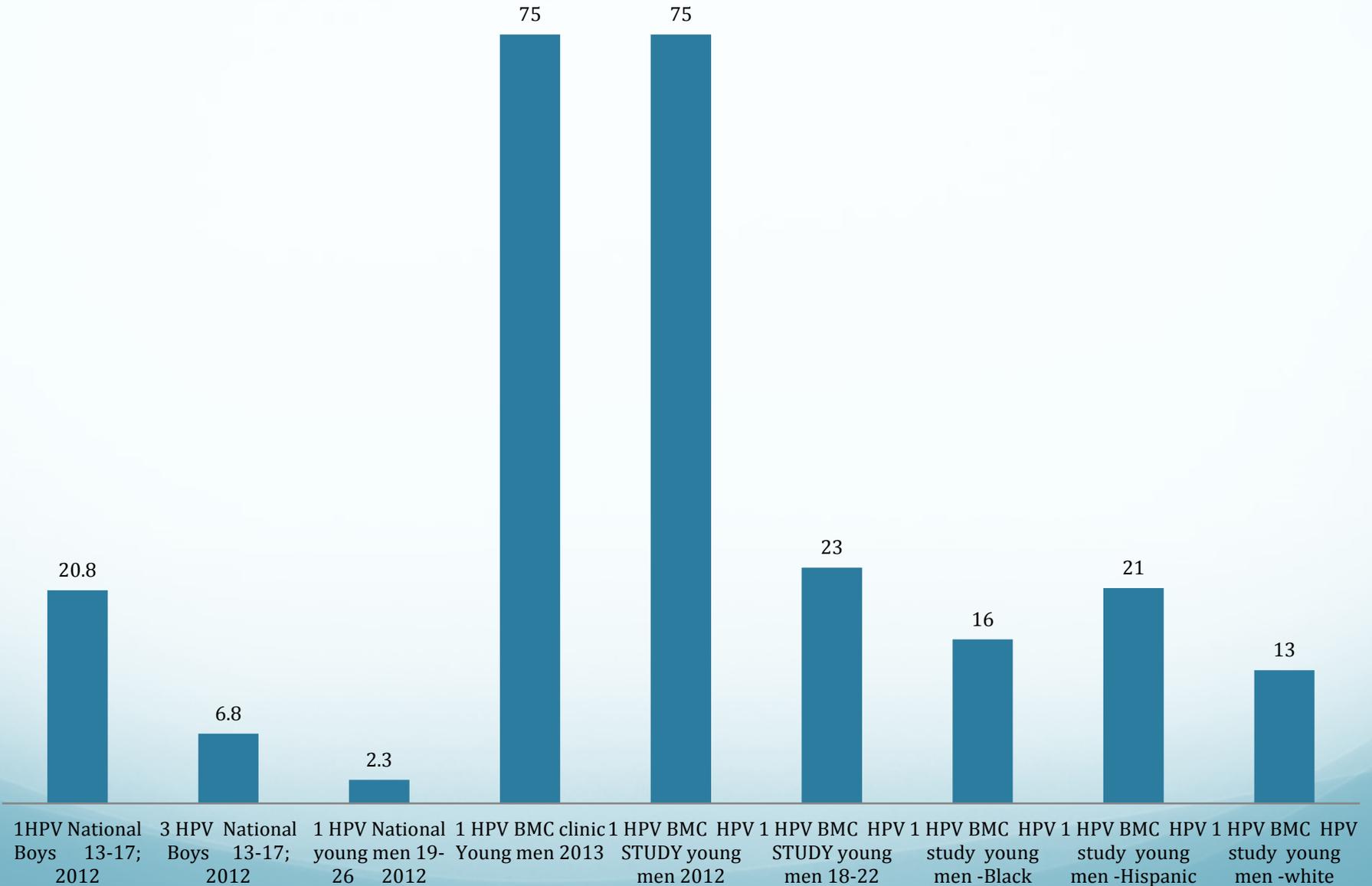
# Lessons Learned

- The low-income, minority, and immigrant young adult women and men in this study demonstrate limited knowledge about HPV infection and HPV vaccine.
- Despite low knowledge, they reported:
  - High levels of trust in physicians,
  - High intent to vaccinate and
  - Willingness to vaccinate if recommended by their physicians.

# Lessons Learned

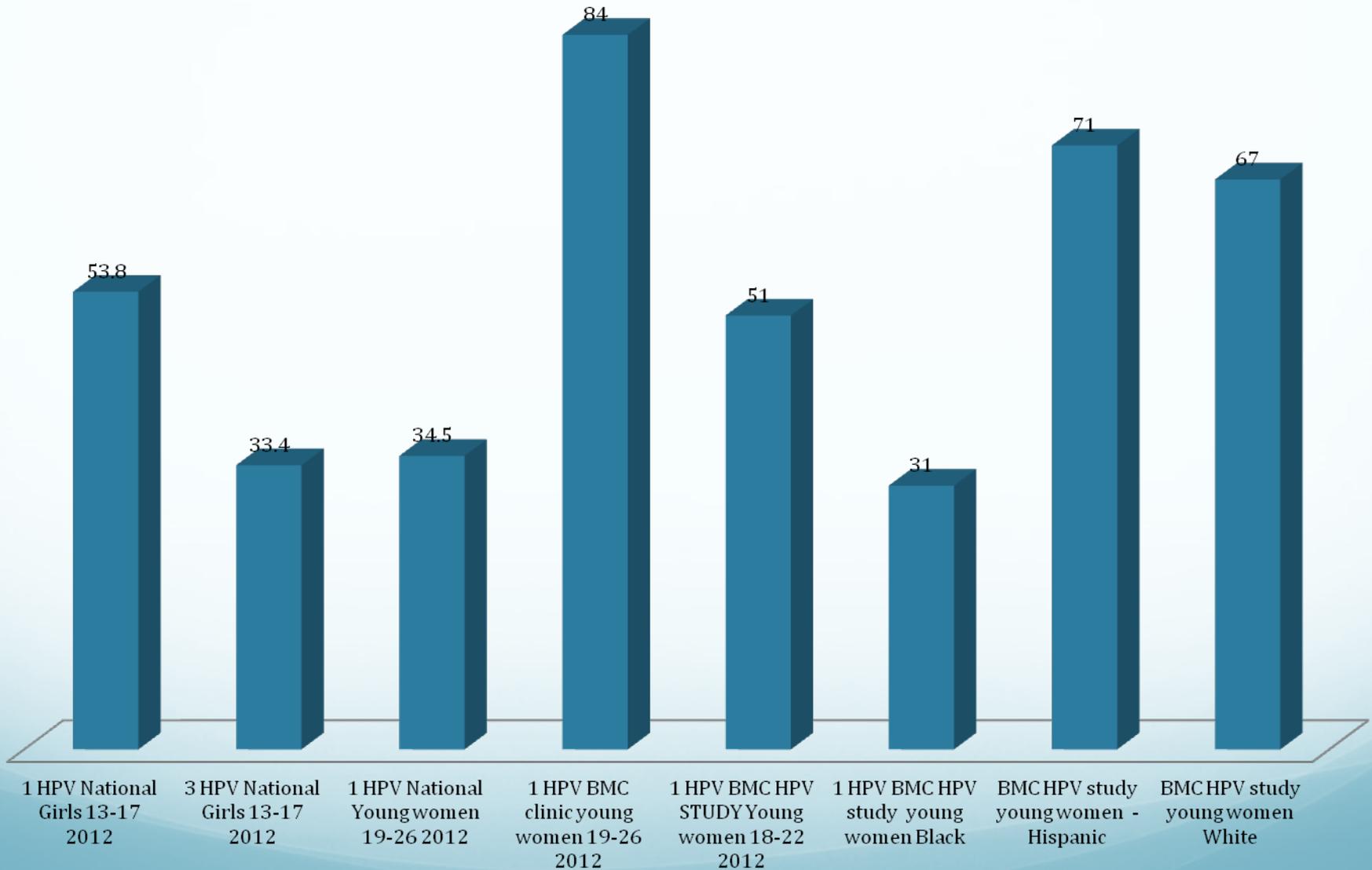
- However, only half of participating women and nearly a quarter of young men subsequently received the vaccine, suggesting missed vaccination opportunities during clinic visits.
- Young men and women reported low-perceived risk to HPV infection due to sexual inactivity and/or fewer lifetime sexual partners
  - This finding underscores the need for culturally/ethnically competent educational messages with a focus on the importance of vaccinating all men and women regardless of sexual history

# HPV Vaccination Comparison - Young Men



2012 National Immunization Survey-Teens (NIS-Teen),, BMC Clinic, Study.

# HPV Vaccination Comparison - Young Women



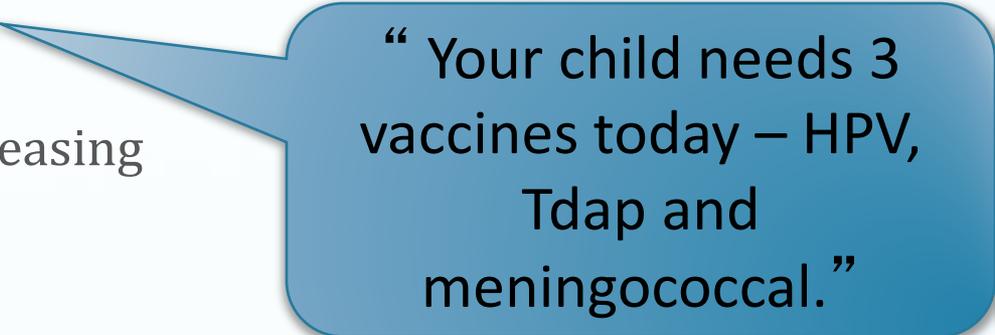
2012 National Immunization Survey-Teens (NIS-Teen), BMC Clinic, Study.

# Conclusion

- HPV vaccination rates among young adult women and men have the potential to be high if the vaccine is routinely recommended by providers and offered at all clinic visits to avoid missed vaccination opportunities during clinic visits.
- Empowering physicians to provide culturally competent education and strong recommendations for HPV vaccination to all their patients could raise vaccination rates and reduce cervical cancer disparities in women and other HPV-related infections and cancers in men and women in the future

# Recommendations to Improve HPV Vaccination Rates

- Strong provider recommendation
- Risk-based education aimed at increasing knowledge of HPV infection and vaccination, utilizing every clinical opportunity
- The effectiveness of targeted, culturally- specific messaging about HPV needs to be evaluated to determine if such approaches will increase HPV vaccine uptake.
- Physicians should be encouraged to establish HPV vaccination as normative.
- Have standard protocol for assuring injection and follow-up to improve initiation and completion rates and reduce HPV-related infection and cancers , reducing specifically cervical cancer disparities among Blacks, Latina and Caucasian women.



“ Your child needs 3 vaccines today – HPV, Tdap and meningococcal.”

# Goals Based on Formative Research

## WE WANT PARENTS/YOUNG ADULTS TO:

- Realize HPV vaccine is CANCER PREVENTION
- Understand HPV vaccine is best at 11 or 12 years old-FOR PARENT
- Understand HPV vaccine still necessary for catch up and even if in monogamous relationship-old-FOR YOUNG ADULTS
- Recognize importance of getting all 3 shots

## WE WANT HEALTHCARE PROFESSIONALS TO:

- Be familiar with all of the indications for HPV vaccine
- Make strong recommendations for receiving vaccine at 11 or 12 AND if older than 12 to catch up until 26
- Be aware of, and interested in, systems that can improve practice vaccination rates

# New Healthcare Professional Resource

- One-sided “at a glance” style factsheet
- Also available as web content
- Developed from message testing with moms and audience research with doctors and clinicians
- Each “statement” is coupled with finding from formative research

## Tips and Time-savers for Talking with Parents about HPV Vaccine



Recommend the HPV vaccine series the same way you recommend the other adolescent vaccines. For example, you can say “Your child needs these shots today,” and name all of the vaccines recommended for the child’s age.

Parents may be interested in vaccinating, yet still have questions. Taking the time to listen to parents’ questions helps you save time and give an effective response. CDC research shows these straightforward messages work with parents when discussing HPV vaccine—and are easy for you or your staff to deliver.

**CDC RESEARCH SHOWS:** The “HPV vaccine is cancer prevention” message resonates strongly with parents. In addition, studies show that a strong recommendation from you is the single best predictor of vaccination.

**TRY SAYING:** HPV vaccine is very important because it prevents cancer. I want your child to be protected from cancer. That’s why I’m recommending that your daughter/son receive the first dose of HPV vaccine today.

**CDC RESEARCH SHOWS:** Disease prevalence is not understood, and parents are unclear about what the vaccine actually protects against.

**TRY SAYING:** HPV can cause cancers of the cervix, vagina, and vulva in women, cancer of the penis in men, and cancers of the anus and the mouth or throat in both women and men. There are about 26,000 of these cancers each year—and most could be prevented with HPV vaccine. There are also many more precancerous conditions requiring treatment that can have lasting effects.

**CDC RESEARCH SHOWS:** Parents want a concrete reason to understand the recommendation that 11–12 year olds receive HPV vaccine.

**TRY SAYING:** We’re vaccinating today so your child will have the best protection possible long before the start of any kind of sexual activity. We vaccinate people well before they are exposed to an infection, as is the case with measles and the other recommended childhood vaccines. Similarly, we want to vaccinate children well before they get exposed to HPV.

**CDC RESEARCH SHOWS:** Parents may be concerned that vaccinating may be perceived by the child as permission to have sex.

**TRY SAYING:** Research has shown that getting the HPV vaccine does not make kids more likely to be sexually active or start having sex at a younger age.

**CDC RESEARCH SHOWS:** Parents might believe their child won’t be exposed to HPV because they aren’t sexually active or may not be for a long time.

**TRY SAYING:** HPV is so common that almost everyone will be infected at some point. It is estimated that 79 million Americans are currently infected with 14 million new HPV infections each year. Most people infected will never know. So even if your son/daughter waits until marriage to have sex, or only has one partner in the future, he/she could still be exposed if their partner has been exposed.

**CDC RESEARCH SHOWS:** Emphasizing your personal belief in the importance of HPV vaccine helps parents feel secure in their decisions.

**TRY SAYING:** I strongly believe in the importance of this cancer preventing vaccine, and I have given HPV vaccine to my son/daughter/grandchild/niece/nephew/friend’s children. Experts (like the American Academy of Pediatrics, cancer doctors, and the CDC) also agree that this vaccine is very important for your child.

**CDC RESEARCH SHOWS:** Understanding that the side effects are minor and emphasizing the extensive research that vaccines must undergo can help parents feel reassured.

**TRY SAYING:** HPV vaccine has been carefully studied by medical and scientific experts. HPV vaccine has been shown to be very effective and very safe. Like other shots, most side effects are mild, primarily pain or redness in the arm. This should go away quickly, and HPV vaccine has not been associated with any long-term side effects. Since 2006, about 57 million doses of HPV vaccine have been distributed in the U.S., and in the years of HPV vaccine safety studies and monitoring, no serious safety concerns have been identified.

**CDC RESEARCH SHOWS:** Parents want to know that HPV vaccine is effective.

**TRY SAYING:** In clinical trials of boys and girls, the vaccine was shown to be extremely effective. In addition, studies in the U.S. and other countries that have introduced HPV vaccine have shown a significant reduction in infections caused by the HPV types targeted by the vaccine.

**CDC RESEARCH SHOWS:** Many parents do not know that the full vaccine series requires 3 shots. Your reminder will help them to complete the series.

**TRY SAYING:** I want to make sure that your son/daughter receives all 3 shots of HPV vaccine to give them the best possible protection from cancer caused by HPV. Please make sure to make appointments on the way out, and put those appointments on your calendar before you leave the office today!

 U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

 **YOU ARE THE KEY TO CANCER PREVENTION**

[www.cdc.gov/vaccines/teens](http://www.cdc.gov/vaccines/teens) | [PreteenVaccines@cdc.gov](mailto:PreteenVaccines@cdc.gov)

[www.cdc.gov/vaccines/hpv-tipsheet](http://www.cdc.gov/vaccines/hpv-tipsheet)

# CDC “You Are the Key” Website

HPV Vaccine Resources for Healthcare Professionals



HPV Vaccine is Cancer Prevention

Overview Tools for Your Practice Handouts to Give to Patients & Parents

**You Are the Key to HPV Cancer Prevention**



Watch a short video to remind you why YOU are the key to preventing HPV-related cancers. [5:35 mins]

**Resource Spotlight**



Understanding the Burden of HPV-Related Cancers [1.51MB]



Tips for Talking to Parents about HPV Vaccine [1 page]

Customize this slideset for presentations on HPV and HPV vaccination.

- HPV is so common that almost everyone will be infected with HPV at some point in their lives; however most people will never know they have been infected.

CDC : <http://www.cdc.gov/vaccines/who/teens/for-hcp/hpv-resources.html>

MCAAP Quick Link: <http://mcaap.org/immunization-hpv/>

# CDC - Educational Materials



## Thuốc Chủng Ngừa Ung Thư Cổ Tử Cung- Những Điều Cha Mẹ có Con Tuổi Vị Thành Niên Cần Biết

Mỗi năm tại Hoa Kỳ, khoảng 12,000 phụ nữ bị bệnh ung thư cổ tử cung và gần 4,000 phụ nữ thiệt mạng vì nó. Ung thư cổ tử cung do một loại vi-rút thông thường được gọi là human papillomavirus, hay “HPV” gây ra.

**Vi-rút human papillomavirus (HPV) là gì?**  
HPV là một loại vi-rút thông thường lây nhiễm qua đường tình dục. Có rất nhiều loại vi-rút HPV. Một số loại có thể gây ung thư cổ tử cung cho phụ nữ. Một số loại HPV khác có thể gây ra mụn cóc ở bộ phận sinh dục. Nhưng trong đa số trường hợp, HPV không cho thấy bất kỳ triệu chứng nào và không gây ra các vấn đề sức khỏe. HPV xảy ra rất thông thường nên đa số người lớn đều bị nhiễm vi-khuẩn này ở một giai đoạn nào đó trong đời của họ. Đa số mọi người hầu như không hề biết họ bị nhiễm vi-khuẩn này. HPV xảy ra rất thông thường ở giới trẻ ở giai đoạn tuổi thiếu niên và vào những năm đầu tuổi 20.

**Thuốc chủng ngừa ung thư cổ tử cung (còn gọi là thuốc chủng ngừa HPV) là gì?**  
Thuốc chủng ngừa ung thư cổ tử cung bảo vệ chống lại các loại HPV thường gây ra bệnh ung thư cổ tử cung và các mụn cóc ở bộ phận sinh dục nhất.

**Những ai nên chủng ngừa HPV?**  
Trung Tâm Kiểm Ngừa Bệnh Hoa Kỳ (CDC) và bác sĩ khuyến khích các bác phụ huynh nên chủng ngừa cho mọi bé gái ở tuổi 11 và 12. Các bé gái và phụ nữ từ 13 đến 26 cũng nên chủng ngừa nếu các em chưa được chủng ngừa khi còn trẻ hơn hay khi chưa chủng đủ 3 mũi thuốc. Lý tưởng nhất là cho các bé gái chủng ngừa trước khi có quan hệ tình dục lần đầu tiên khi các em có thể có nguy cơ tiếp xúc với HPV. Lý do là bởi vì loại thuốc chủng ngừa này không có hiệu lực cao đối với những người đã từng tiếp xúc với loại vi-rút này trước khi chủng ngừa.

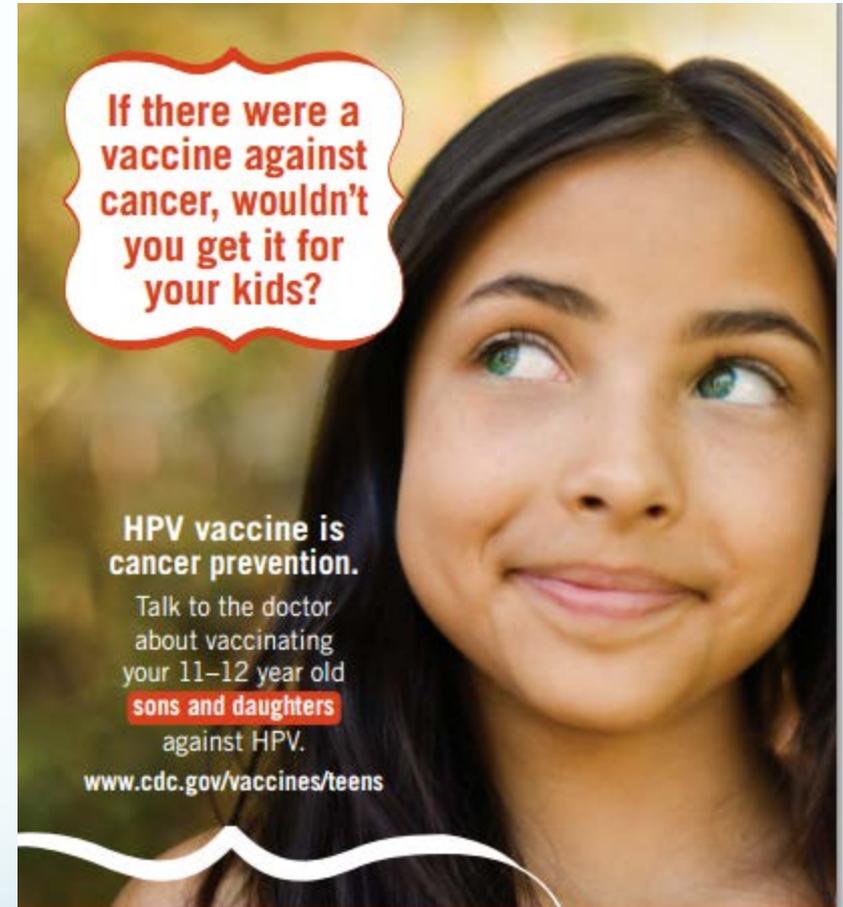
**Thuốc chủng ngừa này có hiệu quả không?**  
Thuốc chủng ngừa này rất có hiệu quả. Sự bảo vệ có được từ thuốc chủng ngừa sẽ hữu hiệu ít nhất là 5 năm. Các bác sĩ hiện chưa biết liệu có cần thêm một mũi bổ sung hay không.

**Thuốc chủng ngừa này có an toàn không?**  
Thuốc chủng ngừa này đã được cấp giấy phép là an toàn. Thuốc chủng ngừa này đã được nghiên cứu ở hàng ngàn thiếu nữ và phụ nữ tại Hoa Kỳ và trên khắp thế giới. Phản ứng phụ thông thường nhất là cảm giác đau ở cánh tay nơi chỗ được chủng ngừa. Phản ứng phụ nghiêm trọng hiếm xảy ra.

**Tôi có được giúp đỡ về phí tổn chủng ngừa không?**  
Đối với các gia đình có bảo hiểm sức khỏe, hầu như chi phí chủng ngừa này sẽ được bảo hiểm trả. Trẻ em 18 tuổi trở xuống có thể hợp lệ được chủng ngừa miễn phí qua Chương Trình Chủng Ngừa cho Trẻ Em (VFC) nếu họ ở trường hợp: đang có Medicaid, hay không có bảo hiểm. Để tìm hiểu thêm về chương trình VFC, hãy tham bác sĩ của con em mình hay liên lạc cơ quan Y Tế Tiểu Bang.

**Có cần chủng ngừa cho các bé trai không?**  
Các cuộc nghiên cứu đang được thực hiện để tìm hiểu xem thuốc chủng ngừa này có hiệu quả cho các bé trai hay không. Khi có đầy đủ các thông tin này, thuốc chủng ngừa này có thể sẽ được cấp giấy phép và được đề nghị chủng cho các bé trai và phái nam.

  Để biết thêm thông tin về thuốc chủng ngừa, xin hỏi các nhà cung cấp y tế của bạn hoặc gọi 800-232-4636 (chỉ số tiếng Anh). [www.cdc.gov/vaccines/imz/teen/vis](http://www.cdc.gov/vaccines/imz/teen/vis)



**If there were a vaccine against cancer, wouldn't you get it for your kids?**

**HPV vaccine is cancer prevention.**

Talk to the doctor about vaccinating your 11–12 year old **sons and daughters** against HPV.

[www.cdc.gov/vaccines/teens](http://www.cdc.gov/vaccines/teens)

 U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

**YOU ARE THE KEY TO HPV CANCER PREVENTION**

HPV 16  
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<http://www.cdc.gov/vaccines/who/teens/products/print-materials.html?tab=3#TabbedPanels1>