

You are the Key to HPV Cancer Prevention

Understanding the Burden of HPV Disease,
the Importance of the HPV Vaccine Recommendation,
and Communicating about HPV Vaccination

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New Mexico Academy of Family Practice, Taos, July 30, 2016

Funding for this presentation was made possible by the Centers for Disease Control and Prevention Grant No. 1H23HP000960-01 to the National AHEC Organization. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices or organizations imply endorsement by the U.S. Government.

Jointly provided by Postgraduate Institute for
Medicine, The National AHEC Organization, and
New Mexico's Health Education Centers



Postgraduate Institute
for Medicine



National AHEC Organization
HPV Immunization Project



New Mexico Health Education
Centers Network

Faculty Disclosure

*Has in the past spoken on behalf of Merck
Vaccines (more than one year ago); has no
other conflicts*

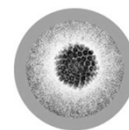
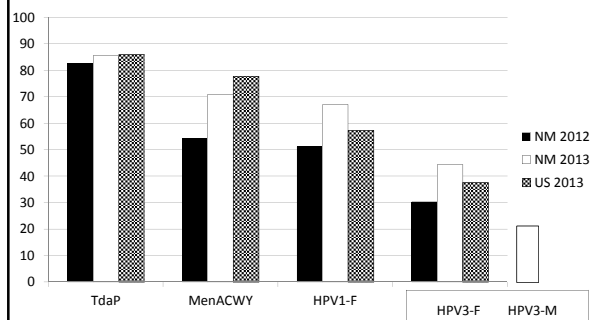
➡ **Lance Chilton, MD**

Objectives

Participants will be able to:

1. Describe the burden of HPV disease.
2. Define the importance of HPV vaccination for cancer prevention.
3. Explain the rationale for vaccinating youth at ages 11 or 12.
4. List the recommendations for HPV vaccine for girls and for boys.
5. Provide useful and compelling information about HPV vaccine to parents to aid in making the decision to vaccinate.
6. Locate resources relevant to current immunization practice.

**In New Mexico, we're doing pretty
well with Tdap, but...**



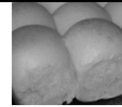
HPV
(Human papillomavirus)

Understanding the Burden
HPV INFECTION & DISEASE

So, let's talk about HPV vaccine and its promotion



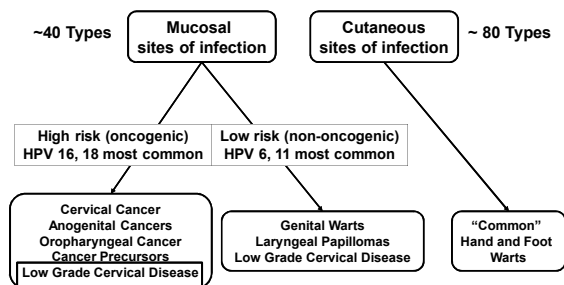
A little



play

- **Ms. Aurelia Sánchez**
 - 38 y.o. mother of
 - Sara, age 7
 - Saúl, age 9
 - Linda, age 11
 - Generally healthy
 - Highly intelligent, well-educated
- **Dr. Harrison Yazzie**
 - 47 y.o. physician
 - Married, father of
 - Emerson, age 15
 - Martha, age 18
 - Highly intelligent, well-educated
 - Committed to prevention of disease

HPV Types Differ in their Disease Associations



HPV Infection

- **Most females and males will be infected with at least one type of mucosal HPV at some point in their lives**
 - Estimated 79 million Americans currently infected
 - 14 million new infections/year in the US
 - HPV infection is most common in people in their teens and early 20s
- **Most people will never know that they have been infected**

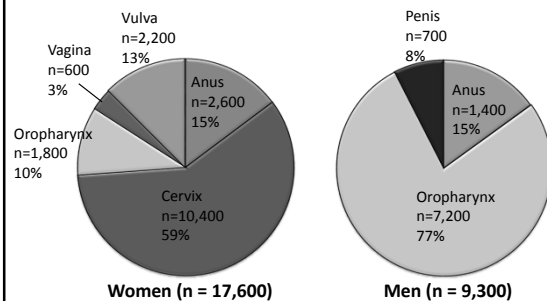
Jemal A et al. J Natl Cancer Inst 2013;105:175-201

Every year in the United States 27,000 people are diagnosed with a cancer caused by HPV



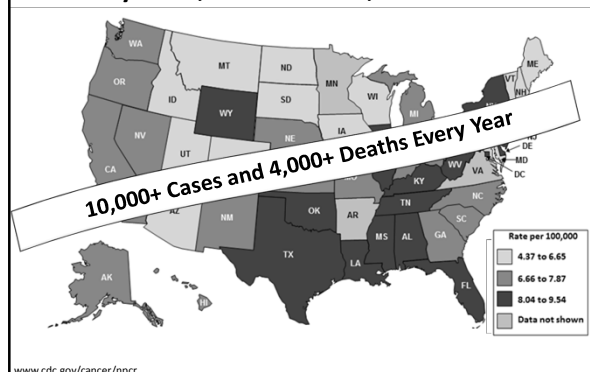
That's 1 case every 20 minutes

New Cancers Caused by HPV per Year United States 2006-2010



CDC, United States Cancer Statistics (USCS), 2006-2010

HPV-Associated Cervical Cancer Incidence Rates by State, United States, 2006-2010

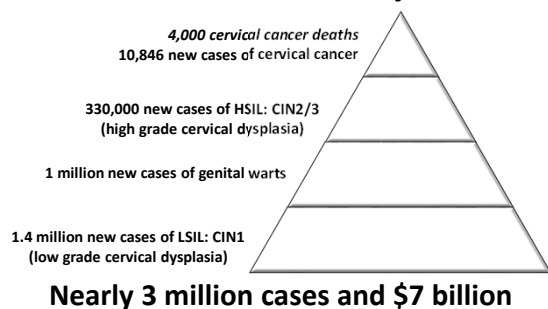


Cervical Cancer in New Mexico

Race/Ethnicity	Age-adjusted rate	Average number of new cases	Age-adjusted death rate	Average number of cancer deaths
NM, Non-Hispanic White	6.5	32	1.7	10
NM, Hispanic	9.0	35	3.1	12
NM, American Indian	6.5	6	3.5	3
NM, Black	5.2	1		
NM, All Races Combined	*	76		26
US, All Races Combined	7.4	11,070	2.4	3,870

New Mexico Tumor Registry, 2006-2010 data

Without vaccination, annual burden of genital HPV-related disease in U.S. females:



American Cancer Society, 2008; Schiffman Arch Pathol Lab Med, 2003; Koshiol Sex Transm Dis, 2004; Insinga, Pharmacoeconomics, 2005

HPV vaccine is cancer prevention.



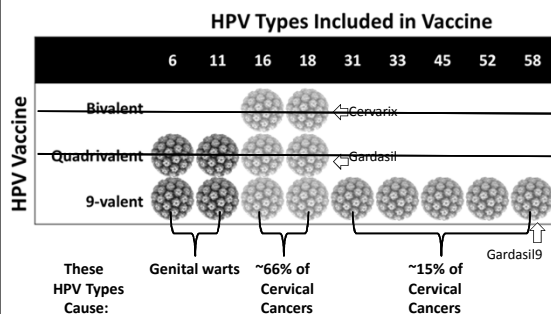
Talk to the doctor about vaccinating your 11-12 year old sons and daughters against HPV.

#UCanStopHPV

Evidence-Based HPV Disease Prevention

HPV VACCINE

HPV Vaccine Comparison



HPV Vaccine Recommendation

Girls & Boys can start HPV vaccination at age 9

Preteens should finish HPV vaccine series by 13th birthday



Plus girls 13-26 years old who haven't started or finished HPV vaccine series



Plus boys 13-21 years old who haven't started or finished HPV vaccine series

HPV Vaccination is Routinely Recommended

► HPV vaccination is recommended for both females and males ages 11-12 years

- HPV vaccine series should be completed before the 13th birthday

Routine immunization for 11- and 12-year-olds includes HPV vaccination.

Clinicians should recommend HPV vaccine on the same day and in the same way as the other vaccines for preteens.

MMWR, August 29, 2014, Vol 63, #RR05

Updated ACIP Recommendations: Interchangeability

If vaccination providers do not know, or do not have available the HPV vaccine product previously administered, or are in settings transitioning to 9vHPV:

For protection against HPV 16 and 18,

- Females: Any HPV vaccine product may be used to continue or complete the series
- Males: 4vHPV or 9vHPV may be used to continue or complete the series
- For all with complete 2vHPV or 4vHPV series, additional 9vHPV not recommended

MMWR 2015;64:300-4

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ACIP Recommendations: Timing of the Series

► 2vHPV, 4vHPV and 9vHPV are each administered in a 3-dose schedule

- Interval between doses 1 → 2: ~6 weeks (1-2 months)
- Interval between doses 1 → 3: 6 months

► If the vaccine schedule is interrupted, the series does not need to be restarted

MMWR 2015;64:300-4

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Prediction



► Coming in October:

- Two-dose recommendation for younger patients
- Spacing ~6-12 months apart

Parents Want to Know: HPV Vaccination Is Safe, Effective, and Provides Lasting Protection

► HPV Vaccine is SAFE

- Benefits of HPV vaccination far outweigh any potential risks
- Safety studies findings for HPV vaccination similar to safety reviews of MCV4 and Tdap vaccination

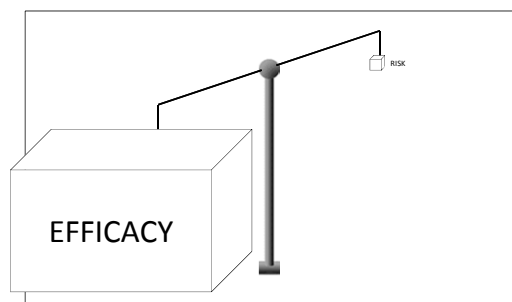
► HPV Vaccine WORKS

- Population impact against early and mid outcomes have been reported in multiple countries

► HPV Vaccine LASTS

- Studies suggest that vaccine protection is long-lasting
- No evidence of waning protection

Garland et al, Prev Med 2011; Ali et al, BMJ 2013; Markowitz JID 2013; Nsouli-Maktabi MSMR 2013



HPV VACCINE SAFETY

VAERS: HPV Vaccine Safety Monitoring → Vaccine Safety Datalink

- Ongoing safety monitoring has shown most reports are non-serious
- Among the 7.6% of reports coded as “serious,” most frequently cited possible side effects are headache, nausea, vomiting, and fever
- Syncope (fainting) continues to be reported following vaccination among adolescents
 - Adherence to a 15-minute observation period after vaccination is encouraged

MMWR. 2014;63(RR05):1-30.

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Non-CDC HPV Vaccine Safety Activities

- Post-licensure commitments from manufacturers
 - Vaccine in pregnancy registries
 - Long term follow-up in Nordic countries
- Official reviews
 - WHO’s Global Advisory Committee on Vaccine Safety¹
 - Institute of Medicine’s report on adverse effects and vaccines, 2011² = yes to anaphylaxis (rare), **maybe** to syncope no to anything else

¹www.who.int/vaccine_safety/Jun_2009/en/

²www.iom.edu/Reports/2011/Adverse-Effects-of-Vaccines-Evidence-and-Causality.aspx

9vHPV Vaccine Safety

- Seven pre-licensure studies including 15,000 males and females
- Generally well tolerated
 - Adverse event profile similar to that of 4vHPV across age, gender, race, and ethnicity
 - More injection-site reactions expected among those who receive 9vHPV



Monitoring Impact of HPV Vaccine Programs on HPV-Associated Outcomes

HPV VACCINE IMPACT

HPV vaccine impact monitoring

- Post licensure evaluations are important to evaluate real world effectiveness of vaccines
- Population impact against early and mid outcomes have been reported:
 - Genital warts**
 - Australia, New Zealand, Denmark, Sweden, Germany, Quebec, US
 - HPV prevalence**
 - Australia, Norway, Denmark, Sweden, UK, US
 - Cervical lesions**
 - Australia, British Columbia, Denmark, Sweden, US

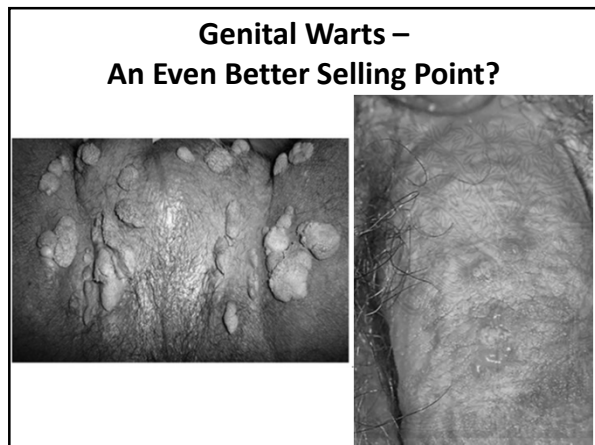
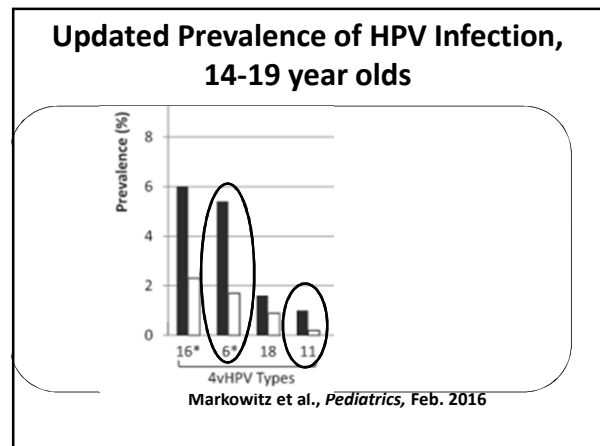
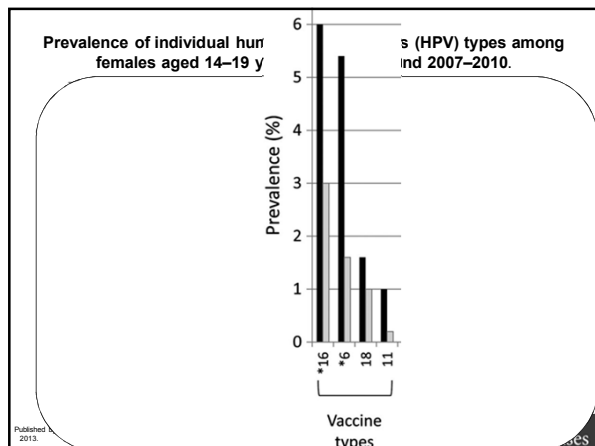
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Systematic Review and Meta-Analysis: Population-Level Impact of HPV Vaccination

- Review of 20 studies in 9 high income countries
- In countries with >50% coverage, among 13-19 yr olds
 - HPV 16/18 prevalence **decreased at least 68%**
 - Anogenital warts decreased by ~61%
- Evidence of herd effects
- Some evidence of cross protection against other types

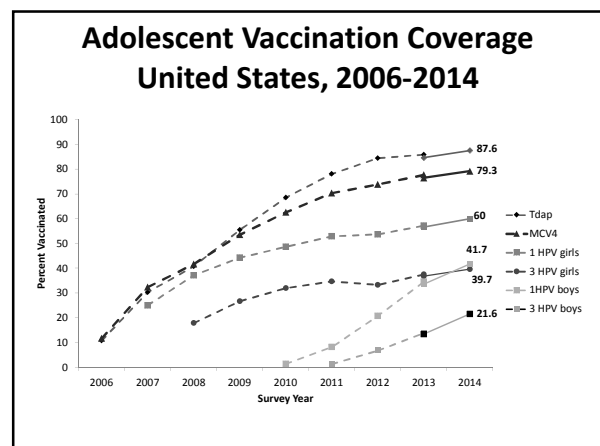
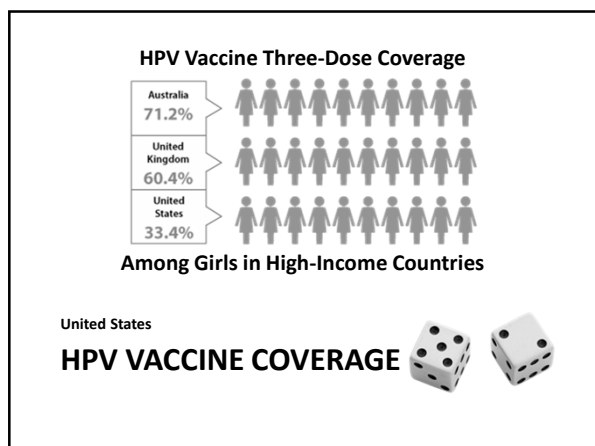
Drolet et al. Lancet Infect Dis 2015

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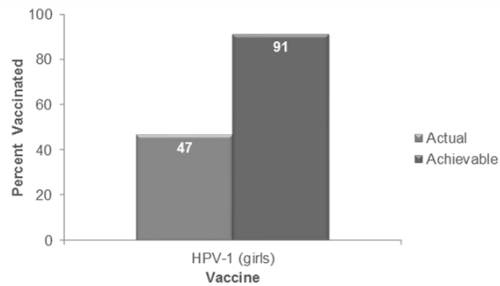


HPV Vaccine Duration of Immunity

- Studies suggest that vaccine protection is long-lasting; no evidence of waning immunity
- Available evidence indicates protection for at least 8-10 years
- Multiple cohort studies are in progress to monitor the duration of immunity

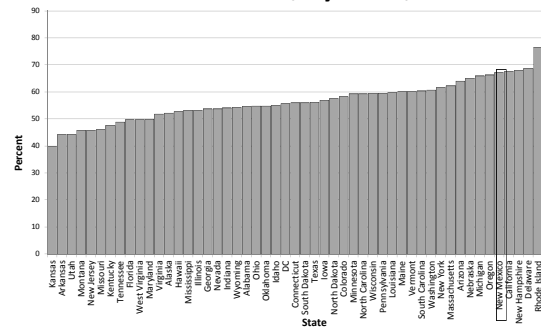


Impact of Eliminating Missed Opportunities by Age 13 Years in Girls Born in 2000

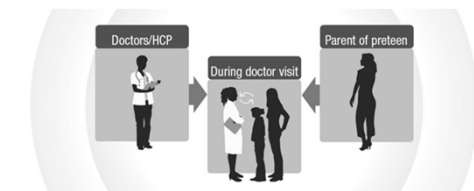


Missed opportunity: Healthcare encounter when some, but not all ACIP-recommended vaccines are given. HPV-1: Receipt of at least one dose of HPV. MMWR. 63(29);620-624.

HPV Vaccine Series Initiation Girls 13-17 Years, by State, 2013

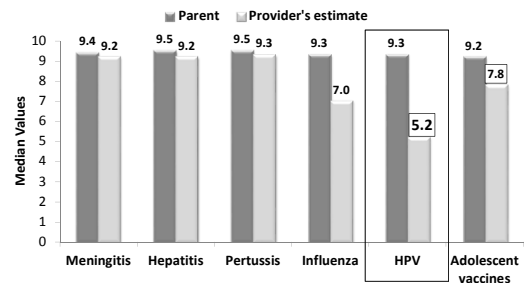


MMWR. 63(29);620-624.



Talking about HPV vaccine FRAMING THE CONVERSATION

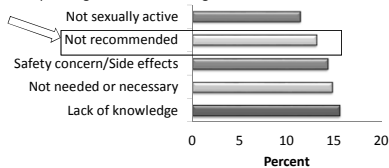
Clinicians Underestimate the Value Parents Place on HPV Vaccine



Adapted from Healy et al. Vaccine. 2014;32:579-584.

Give a Strong Recommendation to Receive HPV Vaccine at Ages 11 or 12

Reason parent gives for not wanting HPV



- A strong recommendation from you is the main reason parents decide to vaccinate
- Many moms in focus groups stated that they trust their child's doctor and would get the vaccine for their child as long as they received a recommendation from the doctor

MMWR 2014; 63(29);625-633;
Unpublished CDC data, 2013.

Talking to parents about HPV VACCINE

Make a Bundled Recommendation

Recommend HPV vaccine the same way and on the same day you recommend Tdap and meningococcal vaccines. A strong recommendation from you is the main reason parents decide to vaccinate.

You can say "your preteen needs three vaccines that provide protection against meningitis, HPV cancers, and pertussis."

Hearing "HPV vaccine is cancer prevention" helps parents make the decision to vaccinate. Parents don't want to talk about HPV vaccine in the context of sexuality or sexual transmission.

Address Parents' Questions

Help them understand why the vaccine is needed at age 11 or 12, let them know that like any other vaccine, they want their children protected long before exposure.

Emphasize your personal belief in the importance of HPV vaccine to help parents feel secure in their decision. Let them know you have given/will give it to the children in your life.

Make an Effective Recommendation

► **Same way:** Effective recommendations group all of the adolescent vaccines

Recommend HPV vaccination the *same way* you recommend Tdap & meningococcal vaccines.

Don't apologize!

► **Same day:** Recommend HPV vaccine *today*

Recommend HPV vaccination the *same day* you recommend Tdap & meningococcal vaccines.

Unpublished CDC data, 2013.

Clinicians can give a strong and effective HPV vaccine recommendation by announcing:

Sophia is due for three vaccines today. These will help protect her from meningitis, HPV cancers, and pertussis. We'll give those shots at the end of the visit.

If main concern is **"Why does my child need this vaccine"** try saying:

HPV vaccine is very important because it prevents cancer.

I know we'd like to protect Maureen from cancer and I'd feel better if she got her first dose of the HPV vaccine series today when it will work best.

If main concern is **"My daughter will wait for marriage/won't be exposed"**, try saying:

HPV is so common that almost everyone will be infected at some time.

When your daughter marries, she could catch HPV from her husband. He might have been infected before he ever met her.

If main concern is **"why now, let's wait until child is older,"** try saying:

HPV vaccine produces a more robust immune response in preteens than in older teens which is why I recommend starting the HPV vaccine series today..

Also, not all sexual contact is consensual

If main concern is **"HPV vaccine will be a green light for sex,"** try saying:

Studies (at least 4) have shown that getting the HPV vaccine doesn't make kids more likely have sex, or to have sex at a younger age.

If main concern is “**would you give it to your child,**” try saying:

Yes, I convinced my daughters to have it given to their children because I think preventing cancer is very important.

If main concern is “**side effects,**” try saying:

Vaccines, like any medication, can cause side effects. With HPV vaccine most are mild, primarily pain or redness in the arm. This should go away quickly.

HPV vaccine has not been linked with any serious or long-term side effects.

Before leaving the exam room, **remind parents when to come back.** Try saying:

To work, Robert needs the full HPV vaccine series, so . . . Please make sure to make appointments for the next shot (1-2 months) on the way out, and put that appointment on your calendar before you leave the office today!

Increase the number of target patients who come in & leave vaccinated

1. Align office policy with mission – e.g., immunize at **every** opportunity at **all** ages
2. Align communication with mission
3. Standing orders
4. Prompt the person who is supposed to order the vaccine
 - Nursing personnel
 - EHR
 - Both



cdc.gov/vaccines/YouAreTheKey

HPV PORTAL FOR PROVIDERS

Factsheets for Parents in English & Spanish



cdc.gov/vaccines/who/teens/infographic/hpv-cancer-prevention.html

HPV CANCER PREVENTION

1 HPV VACCINE IS CANCER PREVENTION
 HPV causes almost all cervical, anal, and penile cancers. HPV vaccine prevents HPV infection, which can lead to these cancers.

2 HPV VACCINE IS RECOMMENDED
 HPV vaccine is recommended for all 11-12 year olds. It's the best way to protect your child from HPV infection and the cancers it can cause.

3 HPV VACCINE IS BEST AT 11-12 YEARS
 HPV vaccine is most effective when given before HPV infection. It's the best time to get the vaccine.

Parents and healthcare professionals are the key to protecting adolescents from HPV cancers.

VACCINATE YOUR 11-12 YEAR OLDS.
www.cdc.gov/vaccines/teens

Free posters available for ordering in the following sizes: 8.5x11, 11x17, 18x24

Information from Physician Groups

<http://www.aafp.org/patient-care/immunizations/disease-population/hpv.html>

HPV Champion Toolkit

American Academy of Pediatrics
 DEDICATED TO THE HEALTH OF ALL CHILDREN™

<https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Pages/HPV-Champion-Toolkit.aspx>

HPV VACCINE IS CANCER PREVENTION

And YOU are the key!

Thank you, NMAFP! Lance Chilton

#WeCanStopHPV