Human Papillomavirus & Cancer Prevention by Vaccination in 2017:

What Are You Waiting For?

Kathryn Moffett MD
Pediatric Infectious Diseases

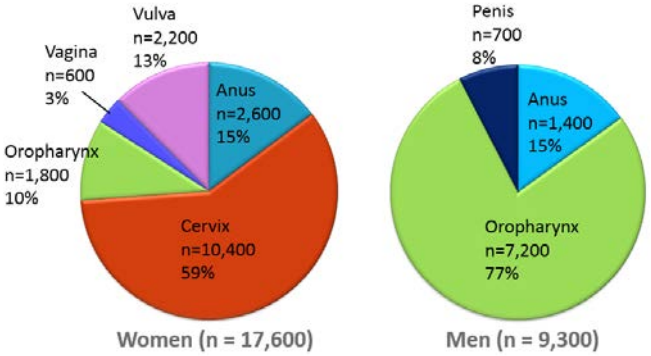
Human Papilloma Virus (HPV)

- Non-enveloped double-stranded DNA virus
  - Necessary cause of cervical cancer
- More than 100 types: 30-40 anogenital
  - HPV 16 & 18: about 70% cervical cancer worldwide
  - Also precancerous lesions

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

That's 1 case every 20 minutes

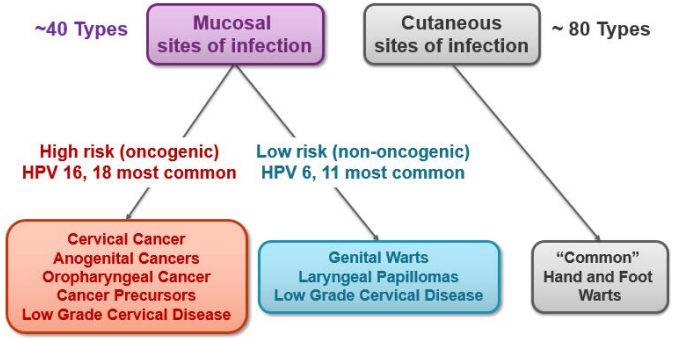
New Cancers Caused by HPV per Year United States 2006-2010



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

YOU ARE THE KEY TO CANCER PREVENTION

HPV Types Differ in their Disease Associations



YOU ARE THE KEY TO CANCER PREVENTION

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

YOU ARE THE KEY TO CANCER PREVENTION

Annual Report to the Nation on the Status of Cancer: HPV-Associated Cancers

- From 2000 to 2009, oral cancer rates increased
  - 4.9% for Native American men
  - 3.9% for white men
  - 1.7% for white women
  - 1% for Asian men
- Anal cancer rates doubled from 1975 to 2009
- Vulvar cancer rates rose for white and African-American women
- Penile cancer rates increased among Asian men

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

YOU ARE THE KEY TO CANCER PREVENTION

HPV VACs

HPV: Annual Incidence

- US Adults: 80++% will have at least one genital HPV in lifetime
- Mechanisms of transmission & acquisition:
  - Sexual
  - Nonsexual

HPV Infection

- Almost females and males will be infected with at least one type of 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

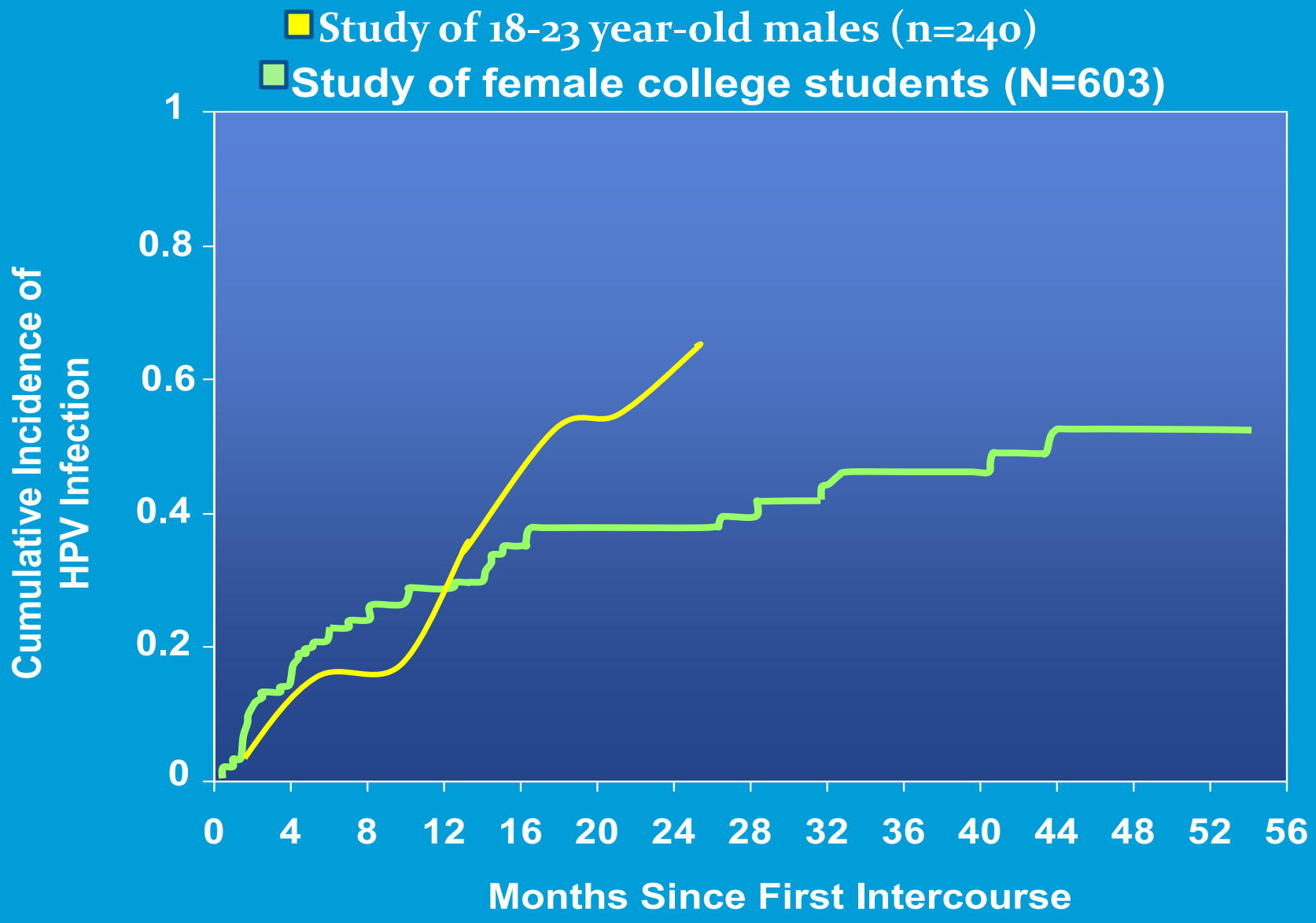
Jemal A et al. J Natl Cancer Inst 2013;105:175-201

HPV Transmission

- HPV exposure can occur with any type of intimate sexual contact
- Intercourse is not necessary to become infected
- Nearly 50% of high school students have already engaged in sexual (vaginal-penile) intercourse
  - 1/3 of 9th graders and 2/3 of 12th graders have engaged in sexual intercourse
  - 24% of high school seniors have had sexual intercourse with 4 or more partners

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

Rapid acquisition of HPV in following sexual debut

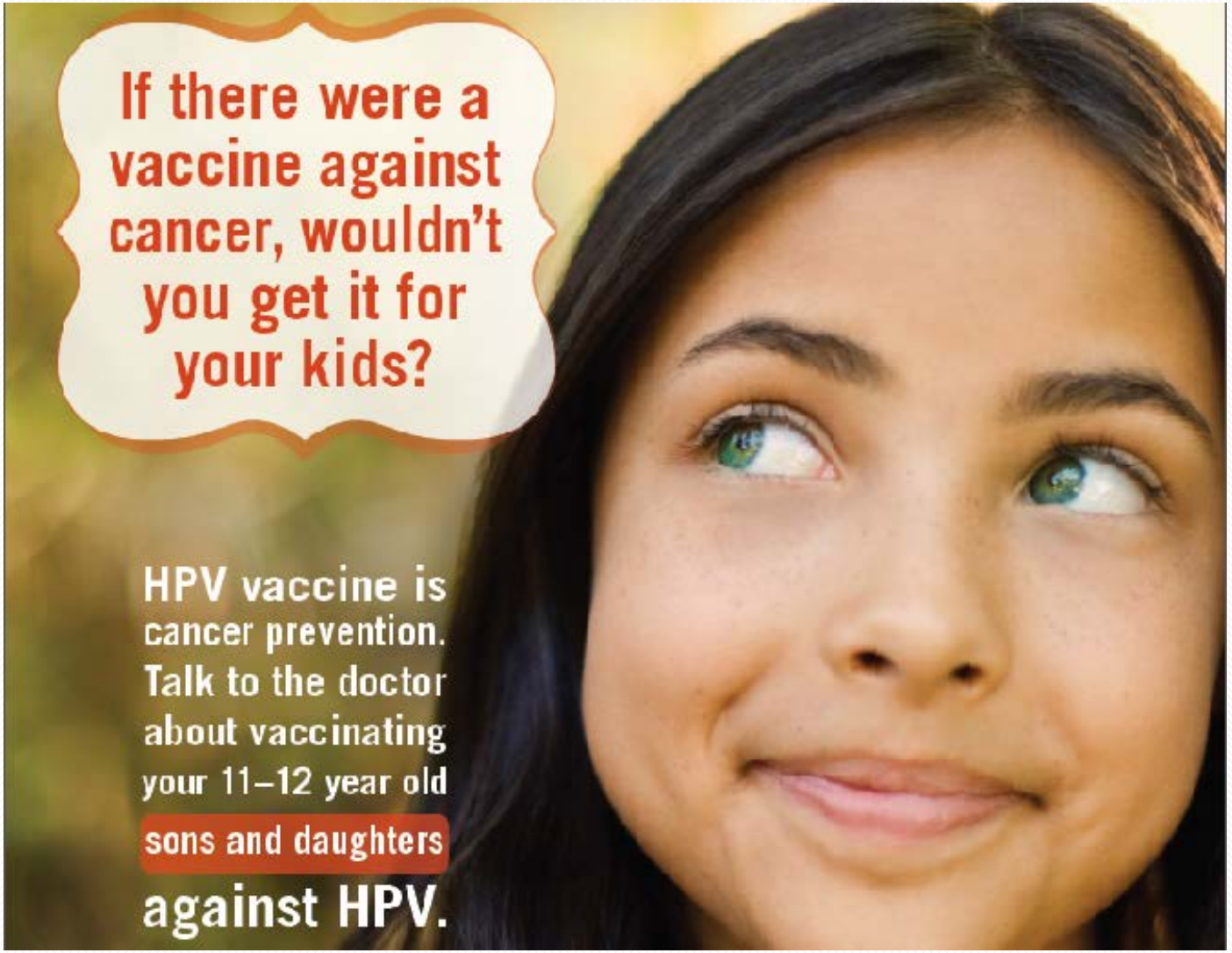


From Winer RL, Lee S-K, Hughes JP, Adam DE, Kiviat NB, Koutsky LA. Genital human papillomavirus infection: incidence and risk factors in a cohort of female university students. *Am J Epidemiol.* 2003;157:218–226. Reprinted with the permission of Oxford University Press.

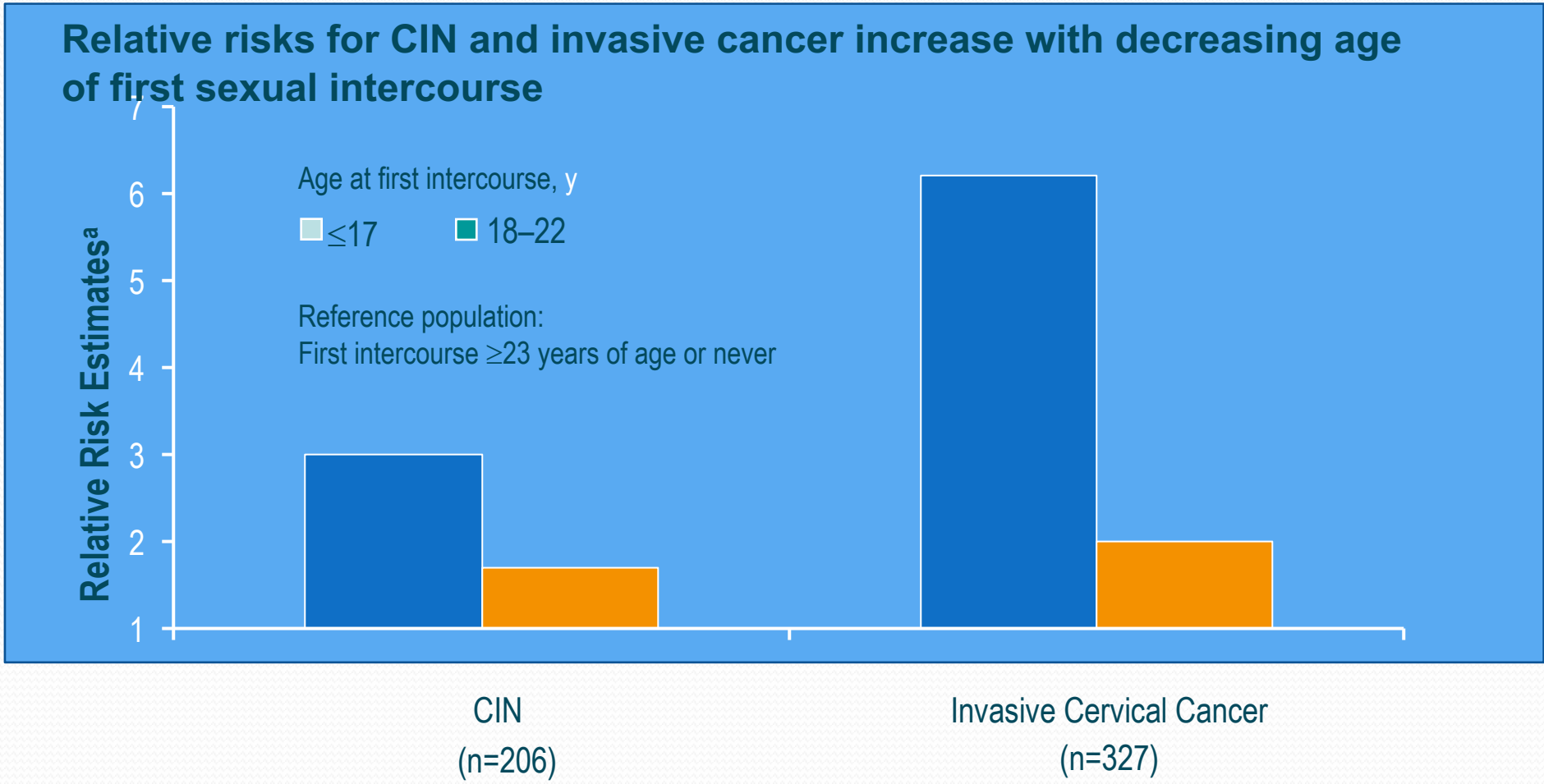
HPV is found in virgins

- Study examined the frequency of vaginal HPV and the association with non-coital sexual behavior in longitudinally followed cohort of adolescent women without prior vaginal intercourse
- HPV was detected in 46% of women prior to first vaginal sex
- 70% of these women reported non-coital behaviors that may in part explain genital transmission

Shew, J Infect Dis. 2012


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.

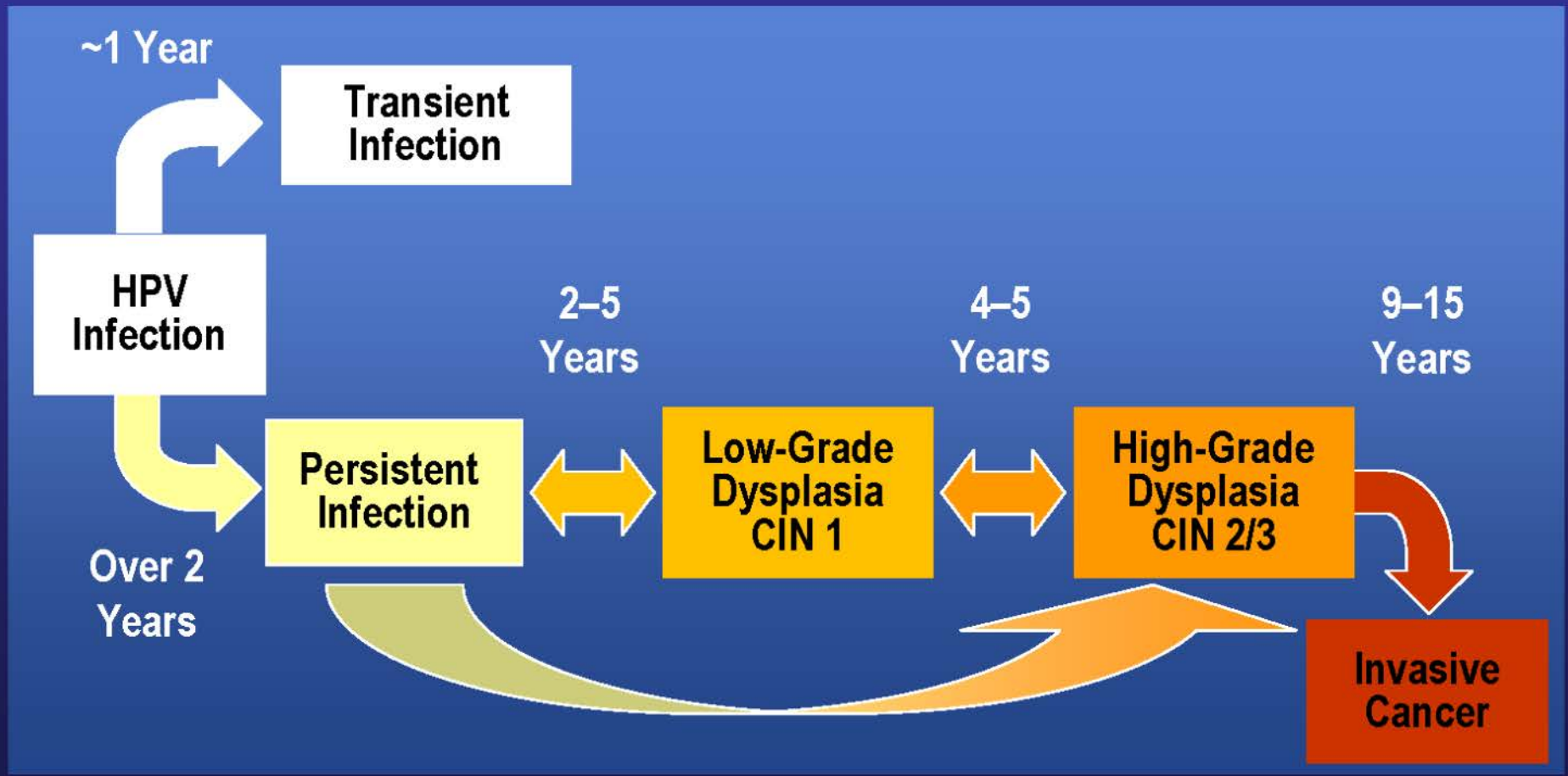
Exposure to HPV at a Young Age Increases the Risk for Cervical Lesions and Cancer in Women



[a]Mantle-Haenszel estimates adjusted for age only.

La Vecchia C et al. *Cancer*. 1986;58:935–941.

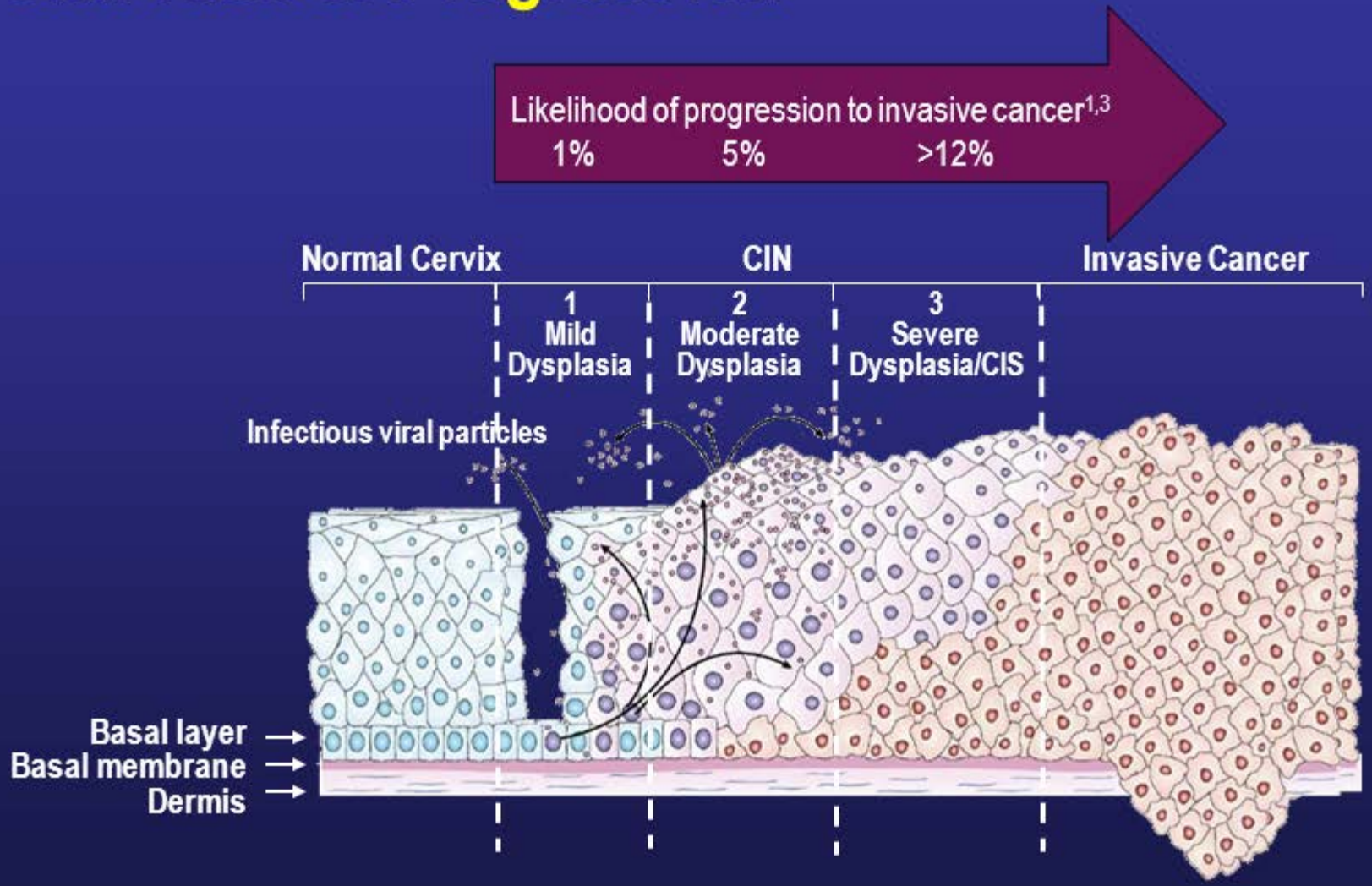
Natural History of High-Risk HPV Infection and Potential Progression to Cervical Cancer[1]



CIN = cervical intraepithelial neoplasia.

1. Reprinted from Pagliusi SR, Aguado MT. *Vaccine*. 2004;23:569–578. Copyright© 2004, with permission from Elsevier.

CIN: Risk of Progression[1,2]



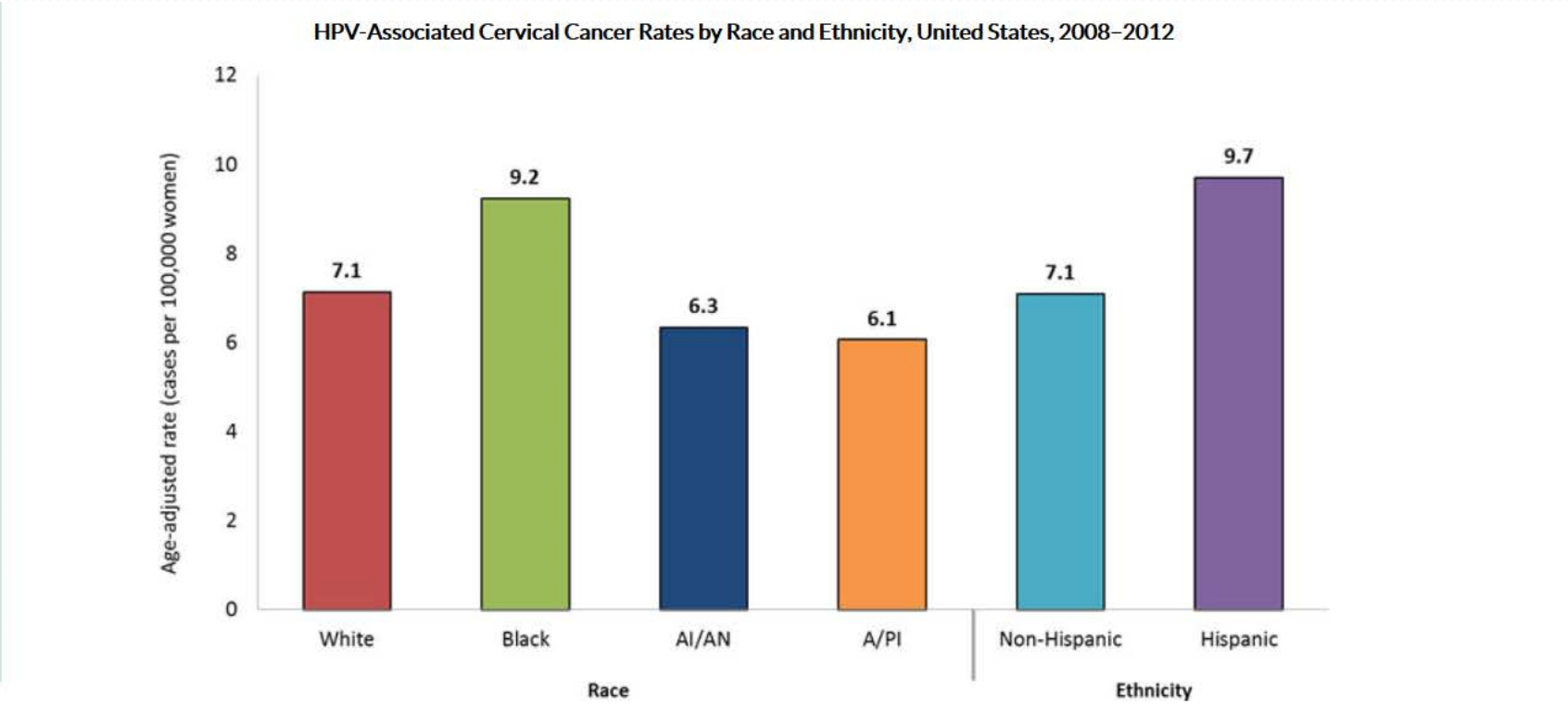
CIN = cervical intraepithelial neoplasia; CIS = carcinoma in situ.

1. Ostor AG. *Int J Gynecol Pathol.* 1993;12:186–192. **2.** Woodman CB et al. *Nat Rev Cancer.* 2007;7:11–22. **3.** Braaten KP et al. *Rev Obstet Gynecol.* 2008;1:2–10.

Cervical Cancer

- Cervical cancer is the most common HPV-associated cancer among women
  - 500,000+ new cases and 275,000 attributable deaths world-wide in 2008
  - 12,000+ new cases and 4,000 attributable deaths in 2011 in the U.S.
- 25.9% cervical cancers occur in women who are between the ages of 35 and 44
  - 14% between 20 and 34
  - 23.9% between 45 and 54

Viens LJ, Henley SJ, Watson M, Markowitz LE, Thomas CC, Thompson TD, Razzaghi H, Saraiya M, Centers for Disease Control and Prevention (CDC). Human papillomavirus–associated cancers—United States, 2008–2012. *MMWR* 2016;65(26):661–666.



The graph above shows age-adjusted incidence rates for HPV-associated cervical cancer in the United States during 2008–2012. "AI/AN" means American Indian/Alaska Native, and "A/PI" means Asian/Pacific Islander. The rates shown are the number of women who were diagnosed with HPV-associated cervical cancer for every 100,000 women. About 9 black women, 7 white women, 6 American Indian/Alaska Native women, and 6 Asian/Pacific Islander women were diagnosed with HPV-associated cervical cancer per 100,000 women. About 10 Hispanic women were diagnosed with HPV-associated cervical cancer per 100,000 women, compared to 7 non-Hispanic women.

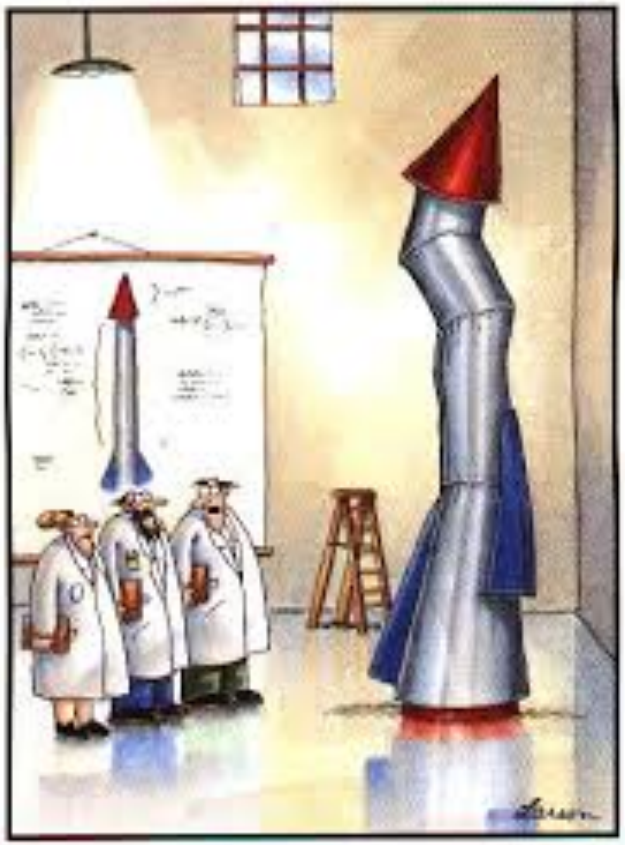
Cervical Cancer 2012

WV	11.2
US	7.4
South	8.2

HPV associated cancers among females:
-the highest in WV at 16.3/100,000
-the lowest in Utah at 8.5 (2004-2008)

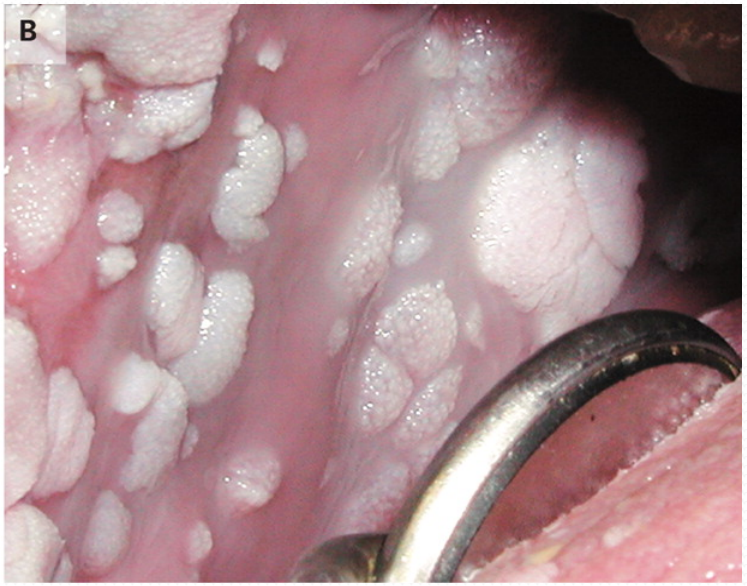
Human Papilloma Virus (HPV)

it's the *common cold* of GU tract



"It's time we face reality, my friends. ... We're not exactly rocket scientists."

Human Papillomavirus Lesions of the Oral Cavity



Stoopler ET, Balasubramaniam R. N Engl J Med 2011;365:e37.

The NEW ENGLAND JOURNAL of MEDICINE

HPV-Associated Cervical Cancer Rates by State

Language: English

Color on Map	Interval	States
	4.37 to 6.65	Arizona, Colorado, Connecticut, Idaho, Iowa, Maine, Maryland, Massachusetts, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, Utah, Vermont, and Wisconsin
	6.66 to 7.87	Alaska, California, Georgia, Hawaii, Indiana, Kansas, Michigan, Missouri, Nebraska, Nevada, New Mexico, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, and Washington
	8.04 to 9.54	Alabama, Delaware, District of Columbia, Florida, Illinois, Kentucky, Louisiana, Mississippi, New Jersey, New York, Oklahoma, Tennessee, Texas, West Virginia, and Wyoming
	Data not shown‡	Arkansas, Minnesota, and Virginia

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups — Census P25-1130) standard.

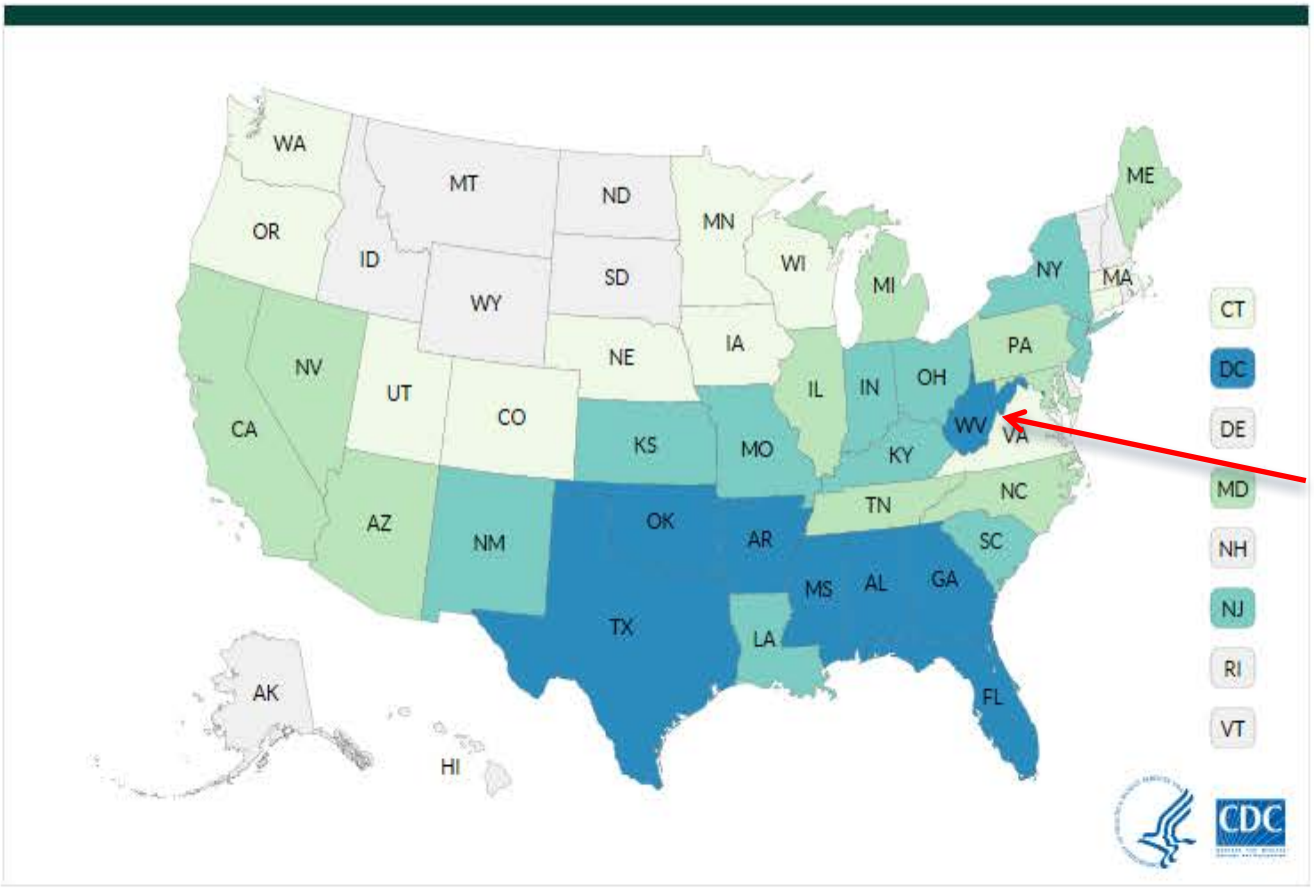
Data are from population-based cancer registries participating in CDC's National Program of Cancer Registries or the National Cancer Institute's Surveillance, Epidemiology and End Results Program, include all states meeting United States Cancer Statistics publication criteria for all years 2006–2010, and cover about 94.8% of the U.S. population.

‡Rates are suppressed if the state did not meet USCS publication criteria or if there were fewer than 16 cases.

Only carcinomas are included for cervical cancer. All histological types were confirmed microscopically; definitions are specified in Watson, 2008.

Cervical Cancer

Death Rates* by State, 2012†



1st in US

Data Table +

*Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population.

‡Rates are suppressed if fewer than 16 deaths were reported by a state.

†Source: U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999–2012 Incidence and Mortality Web-based Report.* Atlanta (GA): Department of Health and Human Services, Centers for Disease Control and Prevention, and National Cancer Institute; 2015. Available at: www.cdc.gov/uscs.

US Cancer Attributed to HPV (n= 38,793)

SITE	Avr #/yr	% HPV	% 16,18,31,33,45 ,52,58
Anus/rectal	5,760	91	87.6
Cervix	11,771	90.6	80.9
Oropharynx	15,738	70.1	65.9
Penis	1,168	63.3	56.9
Vagina	802	75	73.4
Vulva	3,554	68.8	62.8
TOTAL	33,371		

MMWR 2012 Apr 20; Gillison Cancer 2008; 113 President's CPAR 2012-2013


HPV-16

HPV-Associated Oropharyngeal Cancers

- Prevalence increased from 16.3% (1984-89) to 71.7% (2000-04)
- Population-level incidence of HPV-positive cancers increased by 225% while HPV-negative cancers declined by 50%

If trends continue, the annual number of HPV-positive oropharyngeal cancers is expected to surpass the annual number of cervical cancers by the year 2020

Chaturvedi, 2011, J Clin Oncol- data from SEER

THE HPV AND ANAL CANCER FOUNDATION

STAND UP TO CANCER™
standup2cancer.org

The Farrah Fawcett Foundation

Query

- How many vaccines currently prevent cancer?

Answer:

Hepatitis B Vaccine

Human Papilloma Virus Vaccine (HPV)

HPV Vaccines

~~HPV4 (Gardasil) &~~ HPV9 (Gardacil-9)	Name	~~Bivalent/HPV2 (Cervarix)~~
Merck	**Manufacturer**	GlaxoSmithKline
6, 11, 16, 18 6, 11, 16, 18, 31, 33, 45, 52, 58	**Types**	16, 18
Females: Anal, cervical, vaginal and vulvar precancer and cancer; Genital warts **Males:** Anal precancer and cancer; Genital warts	**Indications**	**Females:** Cervical precancer and cancer **Males:** Not approved for use in males
Pregnancy Hypersensitivity to yeast	**Contraindications**	Pregnancy Hypersensitivity to latex (latex only contained in pre-filled syringes, not single-dose vials)
2 or 3 dose series: 0, (2), 6 months	**Schedule (IM)**	3 dose series: 0, 1, 6 months

HPV-v9 (Gardacil-9)

Manufacturer

Merck

Serotypes

6, 11, 16, 18

6, 11, 16, 18, 31, 33, 45, 52, 58

Indications

Females: Anal, cervical, vaginal and vulvar precancer and cancer; Genital warts

Males: Anal precancer and cancer; Genital warts

Contraindications

Pregnancy

Hypersensitivity to yeast

Schedule (IM)

2 or 3 dose series: 0, (2), 6 months

TOP 10 List

1 The HPV vaccine is safe.

Over 200 million doses of HPV vaccine have been distributed worldwide, with over 80 million doses in the US. The safety is continually monitored in 80 countries. No serious safety concern has been identified.

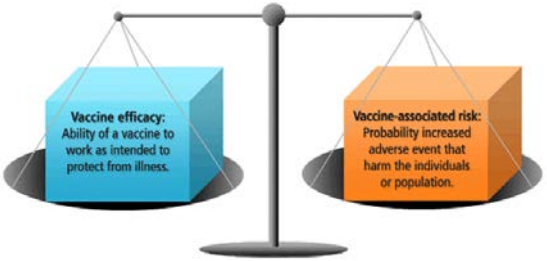
HPV VACs

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

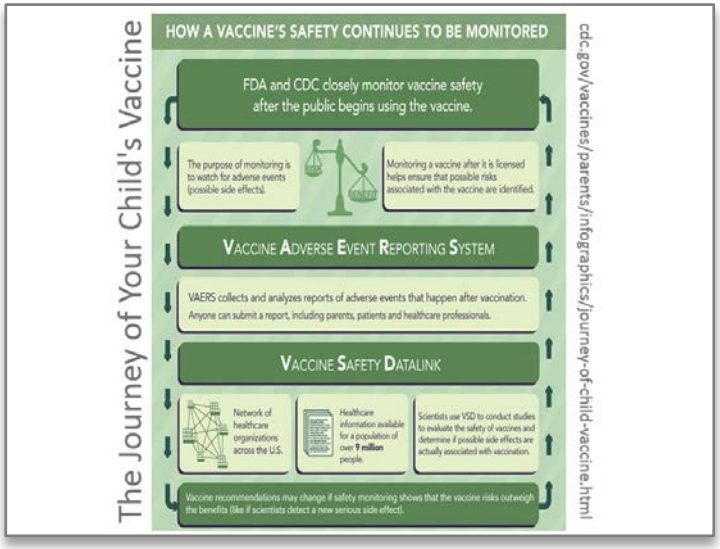
Garland et al, Prev Med 2011; Ali et al, BMJ 2013; Markowitz JID 2013; Nsouli-Maktabi MSMR 2013

YOU ARE THE KEY TO CANCER PREVENTION



HPV VACCINE SAFETY

YOU ARE THE KEY TO CANCER PREVENTION



HPV VACs

2 The HPV vaccine does not cause serious side effects.

The vaccine was tested in numerous clinical trials and **proved to be safe; it continues to be monitored for safety**. No deaths have be causally linked to HPV vaccination.

HPV VACs


Death
too early
SEX
Not my child...
Parents don't want their child vaccinated
Autism
BUST MYTHS WITH FACTS
Awkward Conversation

Ongoing HPV Safety Activities at CDC

- Review of reports to VAERS to search for unusual adverse events or changing patterns of adverse events
- VSD addressing HPV vaccine safety in special populations:
  - Safety of 4vHPV among males
  - Inadvertent 4vHPV vaccination during pregnancy
- VSD addressing HPV vaccine safety concerns that may arise from case reports and/or the media

Key Findings – CDC and Non-CDC

- Venous thromboembolism (VTE)[1]
  - Study evaluating the risk of VTE in vaccinated persons age 9-26 years
  - *Found no increased risk of VTE following 4vHPV*
- Autoimmune and neurologic conditions[2]
  - Study addressing concerns about autoimmune and neurologic disease following 4vHPV vaccination.
  - *Found no association between 4vHPV vaccination and 16 autoimmune conditions*
- Injection site reactions and syncope[3]
  - 4vHPV vaccination may be associated with skin infections where the shot is given during the two weeks after vaccination and fainting on the day the shot is received
  - *No major safety concerns found*

[1] Gee et al , Vaccine 2011
[2] Chao C et al. J Intern Med 2012
[3] Klein NP, et al.. Arch Pediatr Adolesc Med. 2012 Dec; 166(12):1140-8.

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 Safety [1]
  - Institute of Medicine's report on adverse effects and vaccines, 2011[2]

[1] www.who.int/vaccine_safety/Jun_2009/en/
[2] www.iom.edu/Reports/2011/Adverse-Effects-of-Vaccines-Evidence-and-Causality.aspx

IOM Review: Syncope & Anaphylaxis

- IOM reviewed possible associations between 8 vaccines and adverse health events. Key findings:
  - Evidence "favors acceptance" of a causal relationship between HPV vaccine and anaphylaxis (rare)
  - Evidence "convincingly supports" a causal relationship between the injection of a vaccine and syncope
- **Inadequate evidence** was found for causal relationships between HPV vaccination and **12 other specific health events** studied

Institute of Medicine. The National Academies Press, 2012.

HPV VACs

3

The HPV vaccine causes NO fertility issues.

There are no data to suggest that getting the HPV vaccine will have a negative effect on future fertility. In fact, getting vaccinated and protecting against cervical cancer can help **protect a women's ability to get pregnant and have healthy babies**.

HPV VACs

HPV VACs

Treatment of precancerous lesions can lead to increased risk of preterm delivery.

- 330,000 women undergo cone/LEEP procedures every year
- LEEP/HPV infection associated with obstetric morbidity
  - Preterm delivery
  - Preterm rupture of membranes
  - Low birth weight
  - *Long term developmental outcomes, neonatal intensive care costs*

4 The HPV vaccine contains NO harmful ingredients.

HPV vaccines contain ingredients that have proven to be safe. The vaccine does not contain thimerosal and aluminum in quantities less that breast milk, infant formula, antacids and even fruits and vegetables.

HPV VACs

5 The HPV vaccine is necessary, regardless of sexual activity.

Age of onset of sexual activity, incidence of STDs, and rates of pregnancy have all been shown to be similar in vaccinated girls compared to unvaccinated girls. The HPV vaccine produces a higher immune response in preteens than it does in older teens.

HPV VACs

HPV Vaccine is Best at Ages 11 or 12 Years

While there is very little risk of exposure to HPV before age 13, the risk of exposure increase thereafter.

6 The HPV vaccine is for males and females.

HPV vaccination is strongly recommended for males and females because it protects against more than just cervical cancer. Vaccination helps protect boys from getting infected with the most common types of HPV that can cause cancers of the throat, penis and anus.

HPV VACs

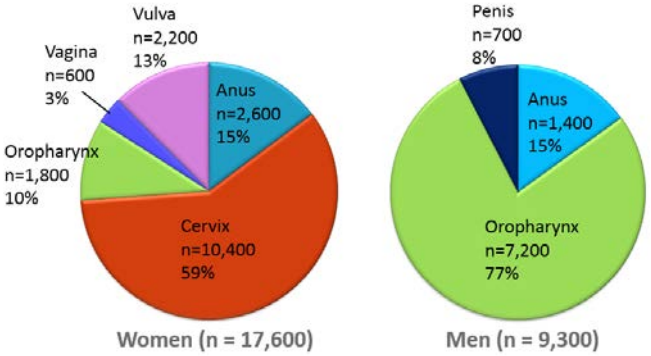
Cancer site	Average number of cancers per year probably caused by HPV†			Percentage per year
	Male	Female	Both Sexes	
Anus	1,400	2,600	4,000	**91%**
Cervix	0	10,400	10,400	**91%**
Oropharynx	7,200	1,800	9,000	**72%**
Penis	700	0	700	**63%**
Vagina	0	600	600	**75%**
Vulva	0	2,200	2,200	**69%**
TOTAL	**9,300**	**17,600**	**26,900**	

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

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



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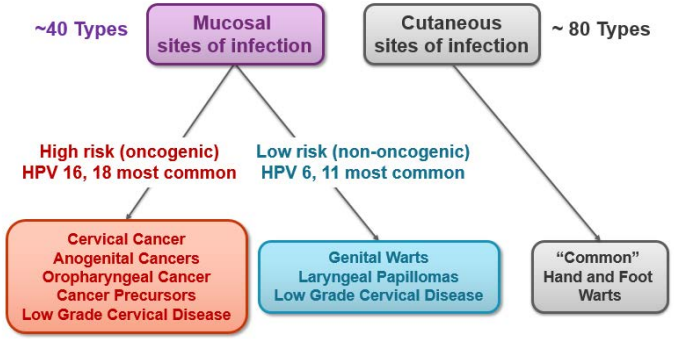

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HPV Infection

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  - Estimated 79 million Americans currently infected
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  - 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

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Annual Report to the Nation on the Status of Cancer: HPV-Associated Cancers

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

YOU ARE THE KEY TO CANCER PREVENTION

HPV VACs

7 The HPV vaccine is effective and prevents cancer.

The vaccine has been proven, through numerous studies, to prevent the cell changes and infections that correspond with multiple HPV-associated cancers. In addition, population studies in the US and other countries that have introduced the HPV vaccine have shown a significant reduction in abnormal Pap test results and genital warts.

HPV VACs

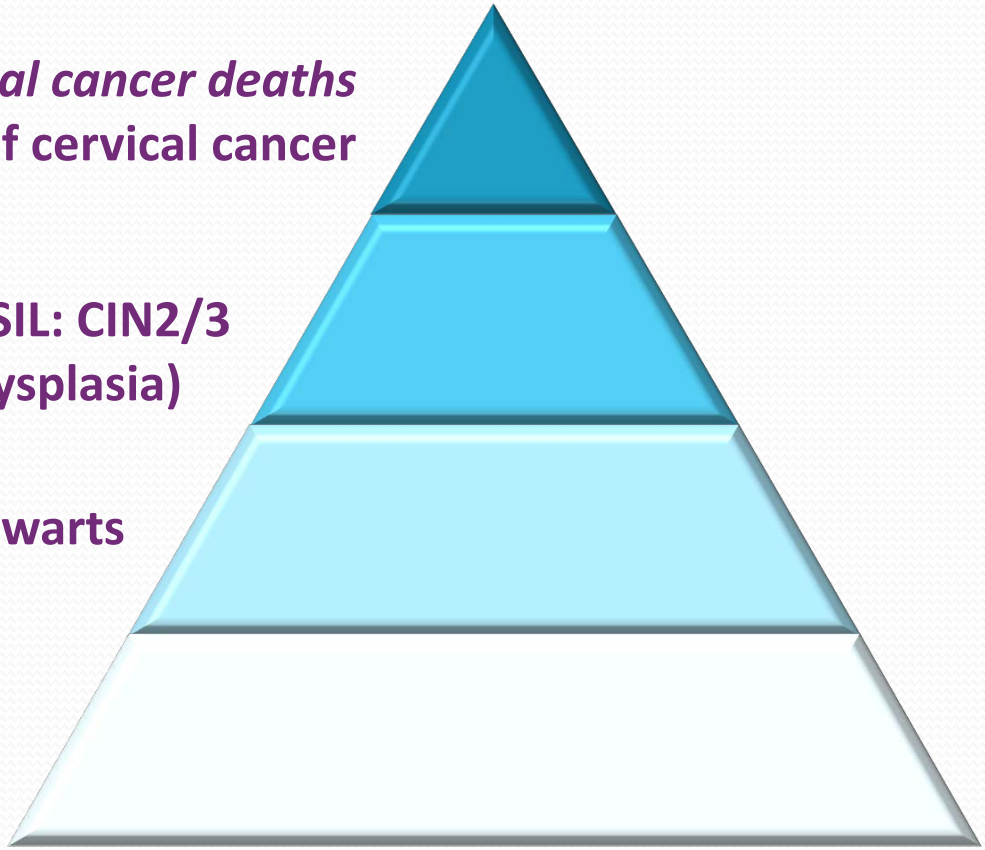
Without vaccination, annual burden of genital HPV-related disease in U.S. *females*:

4,000 cervical cancer deaths
10,846 new cases of cervical cancer

330,000 new cases of HSIL: CIN2/3
(high grade cervical dysplasia)

1 million new cases of genital warts

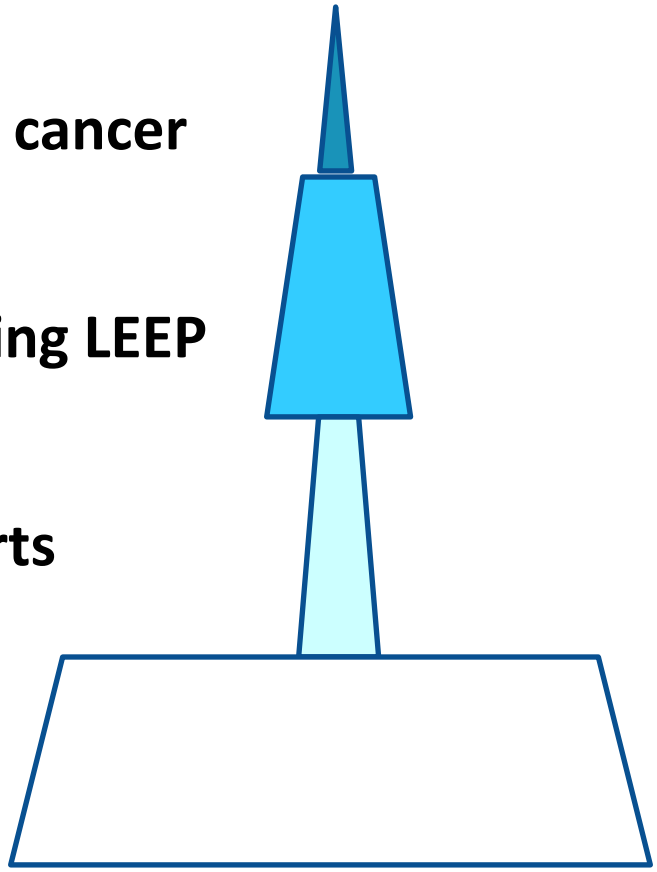
1.4 million new cases of LSIL: CIN1
(low grade cervical dysplasia)



Nearly 3 million cases and $7 billion

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

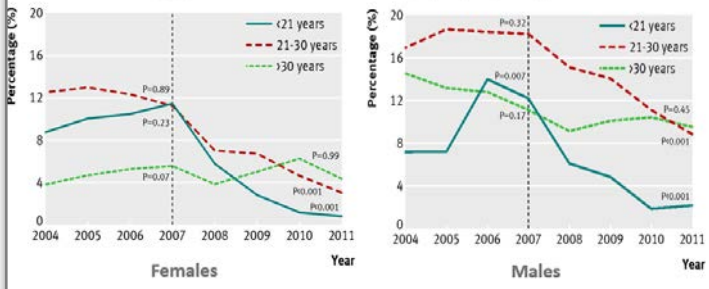
Extrapolating the prior pyramid with projections of vaccine efficacy based on Australian data:



HPV VACs

Impact of HPV vaccination in Australia

Proportion of Australian born females and males diagnosed as having genital warts at first visit, by age group, 2004-11



Ali, et al. BMJ 2013

Challenges in Monitoring HPV Vaccine Impact on Cervical Lesions

- Detected through cervical cancer screening
- Changing screening recommendations
- Lack of cervical cancer screening registries in some countries
- Incomplete linkages with vaccination registries

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

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

HPV VACs

8 Many people do not know about the HPV vaccine.

Studies have shown many parents (37%) have no prior knowledge about the vaccine before their child's provider educates them about it. An effective provider recommendation is the single best predictor of vaccination.

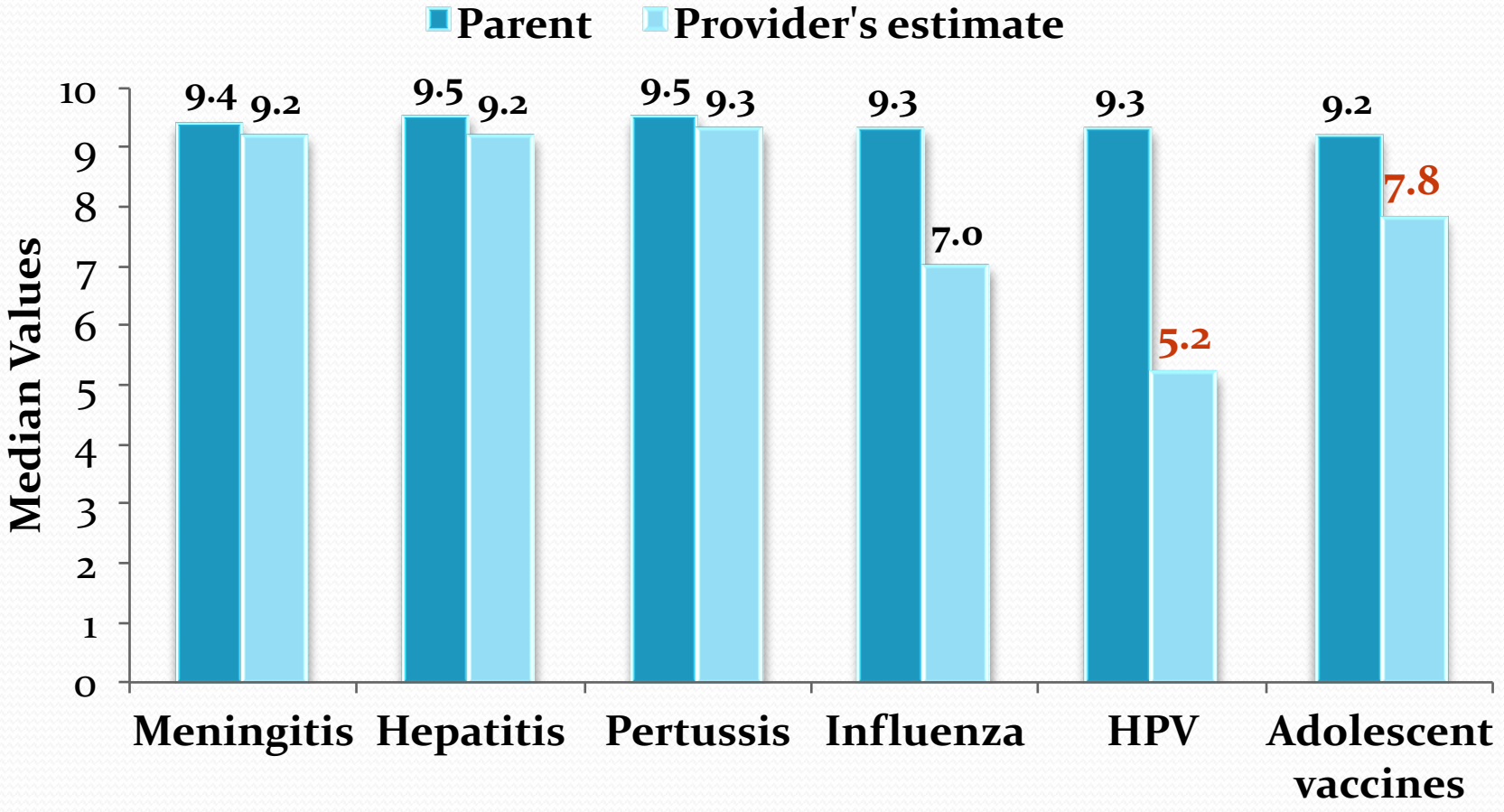
HPV VACs

9 Parents want their preteen to have the HPV vaccine.

Parents value the HPV vaccine at the same level as Meningitis, Hepatitis, Pertussis, and HPV.

HPV VACs

Providers underestimate the value parents place on HPV vaccine

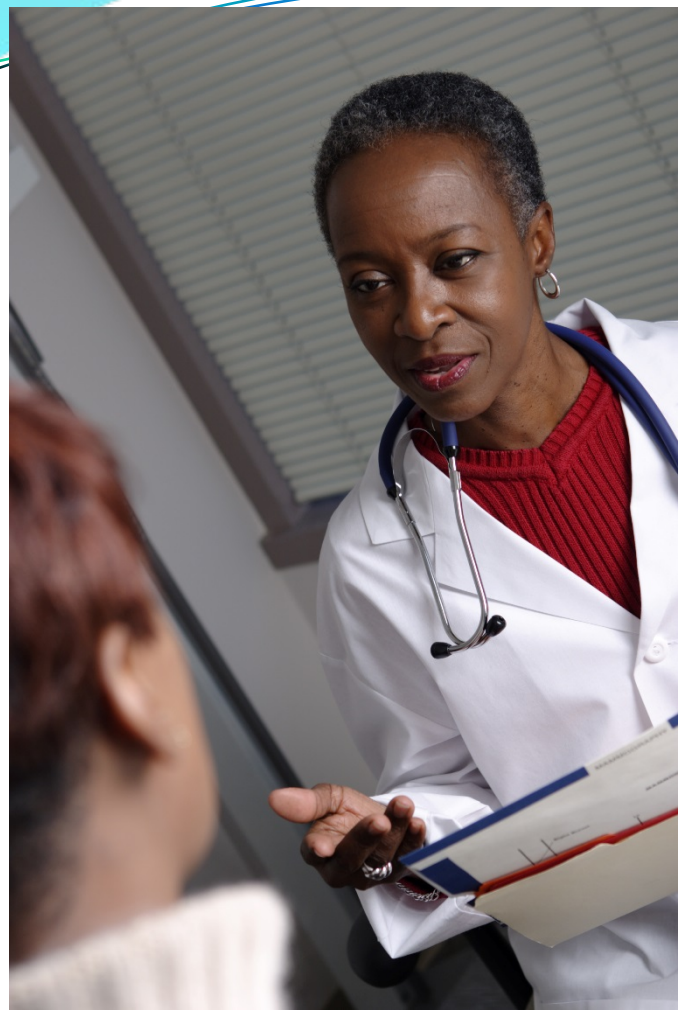


Adapted from Healy et al. Vaccine. 2014;32:579-584.

10 Effectively recommending the HPV vaccine takes less than a minute.

Recommending the HPV vaccine the **same day** and the **same way** as Tdap and Meningococcal vaccines is effective and takes minimal time.

HPV VACs



2 sentences

"Molly needs three vaccines today to protect against whooping cough, HPV cancers and meningitis. She will get those at the end of the visit."

HPV VACs

Addressing all concerns in 45 seconds

Provider: Meghan and Mark are due for their HPV vaccine.

Parent: Why do they need an HPV vaccine?

Provider: The HPV vaccine will help protect them from cancer caused by HPV infection. We know that HPV infection is dangerous– 27,000 people in the US get cancer from HPV every year. And we know that the HPV vaccine is safe– over 187 million doses have been given worldwide and there haven't been any serious side effects.

Parent: I don't think they need that yet…

Provider: Vaccines only work if they're given before exposure– we never wait until a child is at risk to give any recommended vaccines. HPV vaccine is also given as early as possible because it produces a better immune response in younger adolescents. That's why it is so important to start the shots now and finish all 3 of them in the next 6 months.

HPV YOU ARE THE KEY TO CANCER PREVENTION

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.

- **Same day: Recommend HPV vaccine *today***
  Recommend HPV vaccination the *same day* you recommend Tdap & meningococcal vaccines.

Unpublished CDC data, 2013.

HPV YOU ARE THE KEY TO CANCER PREVENTION

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.

HPV YOU ARE THE KEY TO CANCER PREVENTION

If a parent were hesitant…

Ask	Clarify & restate their concerns to make sure you understand
Acknowledge	•Emphasize it is the parents' decision. •Acknowledge risks and conflicting information sources. •Applaud them for wanting what is best for their child. •Be clear that you are concerned for the health of their child, not just public health safety.
Advise	•Clarify their concerns to make sure you understand and are answering the question they actually care about. •Allow time to discuss the pros and cons of vaccines. •Be willing to discuss parents' ideas. •Offer written resources for parents. •Tailor your advice using this sheet or CDC's *Tips & Time Savers*.
Remember	•Declination is not final. The conversation can be revisited. •End the conversation with at least 1 action you both agree on. •Because waiting to vaccinate is the risky choice, many pediatricians ask the parent to sign a *Declination Form*

HPV YOU ARE THE KEY TO CANCER PREVENTION

HPV VACs

Tips:

- Use experts who are trusted by the community.
- Emphasize personal belief in the importance of HPV vaccine.
- Use the tools. These messages have been researched.
- Give a short simple response and only go into more detail if there are questions.
- State the truth: frame conversation around facts instead of myths.

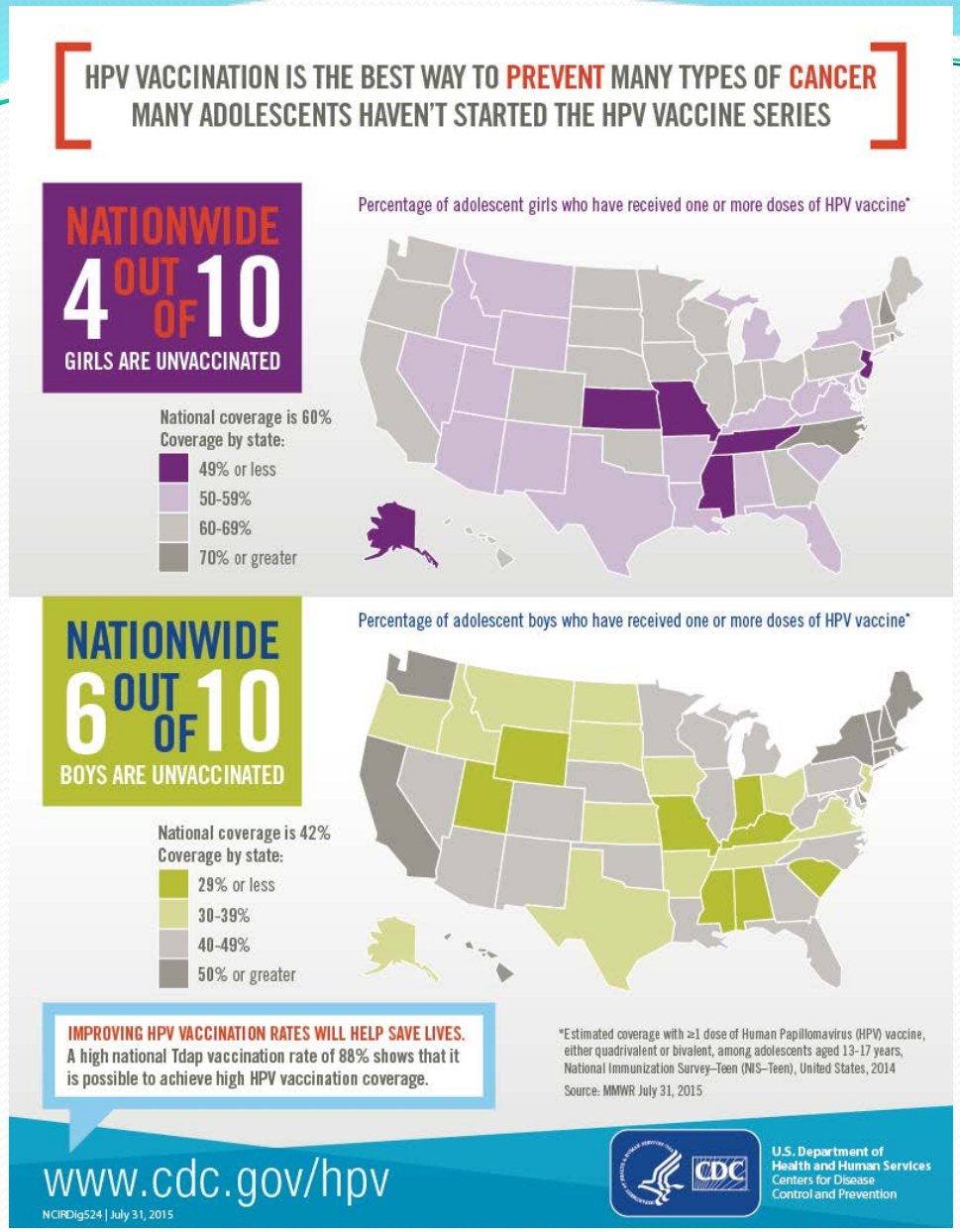
Why We Need to Do Better in HPV Vaccination of 12 year olds

- **Currently 26 million girls <13 yo in the US; If none of these girls are vaccinated then:**
  - **168,400 will develop cervical cancer and**
  - **54,100 will die from it**

- **Vaccinating 30% would prevent 45,500 of these cases and 14,600 deaths**

- **Vaccinating 80% would prevent 98,800 cases and 31,700 deaths**

For each year we stay at 30% coverage instead of achieving 80%, 4,400 future cervical cancer cases and 1400 cervical cancer deaths will occur.



~~HPV vaccination~~ is the best way to prevent many types of cancer.

Current HPV vaccination rates are leaving many unprotected.

Nationwide, 4 out of 10 girls are unvaccinated.

Nationwide, 6 out of 10 boys are unvaccinated.

Announce

“I see here that Michael just turned 11. Because he’s 11, Michael is due for meningitis, HPV, and Tdap vaccines. We’ll give those at the end of the visit.”

“Now that Michael is 12, there are three vaccines we give to kids his age. Today, he’ll get meningitis, HPV, and Tdap vaccines.”

Addressing Parents' Top Questions about HPV VACCINE

Recommend the HPV vaccine series the same way you recommend the other adolescent vaccines. Try saying, "Your child is due for vaccinations today to help protect against meningitis, HPV cancers, and pertussis. We'll give those shots at the end of the visit."

Parents may be interested in vaccinating, yet still have questions. Some parents might just need additional information from you, the clinician they trust. Taking the time to answer their questions and address their concerns can help parents accept HPV vaccination when their child is at the recommended ages of 11 or 12 years.

WHEN PARENTS SAY:	TRY SAYING:
Why does my child need the HPV vaccine?	HPV vaccine is important because it prevents cancer. That is why I recommend that your daughter/son be vaccinated today.
What diseases are caused by HPV?	Certain HPV types can cause cancer of the cervix, vagina, and vulva in females, cancer of the penis in men, and in both females and males, cancers of the anus and the throat. We can help prevent infection with the HPV types that cause these cancers by starting the HPV vaccine series for your child today.
Is my child really at risk for HPV?	HPV is a very common and widespread virus that infects both females and males. We can help protect your child from the cancers and diseases caused by the virus by starting HPV vaccination today.
Why do they need HPV vaccine at such a young age?	HPV vaccination works best at the recommended ages of 11 or 12 years.

http://www.cdc.gov/vaccines/who/teens/for-hcp-tipsheet-hpv.pdf

Highly Endorsed Brief Messages

I strongly believe in the importance of this cancer-preventing vaccine for Jacob.

65% parents 69% physicians

Emma can get cervical cancer as an adult, but you can stop that right now. The HPV vaccine prevents most cervical cancers.

59% parents 64% physicians

National surveys, 1504 parents, 776 physicians
Malo et al., working paper

What are you waiting for?
Why not vaccinate?