HPV Vaccine is Cancer Prevention

Together, We Can Stop HPV

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National Center for Immunization and Respiratory Diseases
Centers for Disease Control and Prevention

September 16, 2014
Understanding the Burden

HPV INFECTION & DISEASE
HPV Types Differ in their Disease Associations

~40 Types

Mucosal sites of infection

High risk (oncogenic) HPV 16, 18

Low risk (non-oncogenic) HPV 6, 11

Cervical Cancer
Anogenital Cancers
Oropharyngeal Cancer
Cancer Precursors
Low Grade Cervical Disease

Cutaneous sites of infection

Genital Warts
Laryngeal Papillomas
Low Grade Cervical Disease

~ 80 Types

“Common” Hand and Foot Warts

~ 80 Types

Hand and Foot Warts
Numbers of Cancers and Genital Warts Attributed to HPV Infections, U.S.

- Penis: 400
- Vagina: 500
- Juvenile-Onset RRP: 820
- Vulva: 1,600
- Anus: 1,600
- Oropharynx: 5,900
- Cervix: 11,500
- Genital Warts:
  - Male: 160,000
  - Female: 180,000

Includes Males and Females

# Cancers Attributed to HPV, U.S.

<table>
<thead>
<tr>
<th>Cancer site</th>
<th>Average number of cancers per year in sites where HPV is often found</th>
<th>Percentage of cancers per year probably caused by HPV</th>
<th>Average number of cancers per year probably caused by HPV†</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Both Sexes</td>
</tr>
<tr>
<td>Anus</td>
<td>1,549</td>
<td>2,821</td>
<td>4,370</td>
</tr>
<tr>
<td>Cervix</td>
<td>0</td>
<td>11,422</td>
<td>11,422</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>9,974</td>
<td>2,443</td>
<td>12,417</td>
</tr>
<tr>
<td>Penis</td>
<td>1,048</td>
<td>0</td>
<td>1,048</td>
</tr>
<tr>
<td>Vagina</td>
<td>0</td>
<td>735</td>
<td>735</td>
</tr>
<tr>
<td>Vulva</td>
<td>0</td>
<td>3,168</td>
<td>3,168</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>12,571</td>
<td>20,589</td>
<td>33,160</td>
</tr>
</tbody>
</table>

CDC, United States Cancer Statistics (USCS), 2006-2010
Average Number of New Cancers Probably Caused by HPV, by Sex, United States 2006-2010

Women (n = 17,600)
- Cervix: 59%, n=10,400
- Oropharynx: 10%, n=1,800
- Vulva: 13%, n=2,200
- Anus: 15%, n=2,600
- Vagina: 3%, n=600

Men (n = 9,300)
- Oropharynx: 77%, n=7,200
- Anus: 15%, n=1,400
- Penis: 8%, n=700

CDC, United States Cancer Statistics (USCS), 2006-2010
How Many Cancers Are Linked with HPV Each Year?

![Bar chart showing the average number of cases per year attributable to HPV for different cancer sites.](chart.png)
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


HPV-Associated Oropharyngeal Cancer Rates by Race and Ethnicity, United States, 2004–2008

Age-adjusted rate per 100,000 females and males

- White:
  - Females: 1.4
  - Males: 6.4
- Black:
  - Females: 1.4
  - Males: 6.3
- AI/AN:
  - Females: 0.8
  - Males: 3.2
- A/PI:
  - Females: 0.5
  - Males: 1.7
- Non-Hispanic:
  - Females: 1.5
  - Males: 6.5
- Hispanic:
  - Females: 0.7
  - Males: 3.5

Females = solid
Males = diagonal


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

www.cdc.gov/cancer/npcr
26 million: number of girls under 13 years of age in the United States

168,400: number who will develop cervical cancer if none are vaccinated

54,100: number who will die from cervical cancer if none are vaccinated

Adapted from Chesson HW et al, Vaccine 2011;29:8443-50
Evidence-Based HPV Prevention

HPV VACCINE
HPV Vaccine is Underutilized

A. Stagnant HPV vaccination rates are leaving another generation vulnerable to devastating HPV cancers

B. HPV vaccination rates are lagging behind the rates of the other vaccines for preteens and teens

C. High HPV vaccination coverage is possible with the current healthcare structure
For each year we stay at 30% coverage instead of achieving 80%...

4,400: number of future cervical cases we will not prevent

1,400: number of cervical cancer deaths we will not prevent
Strong Start?
Adolescent Immunization Coverage, US 13-17 year olds

CDC. National and State Vaccination Coverage Among Adolescents Aged 13–17 Years — United States, 2012
MMWR 2013; 62(34);685-693.
Adolescent Vaccination Coverage
United States, 2006-2013

MMWR 2014; 63(29);625-633.
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.

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

45.8

New Jersey
ACCELERATING HPV VACCINE UPTAKE:
URGENCY FOR ACTION TO PREVENT CANCER

HOW TO ACCELERATE HPV VACCINE UPTAKE IN THE U.S.

- Reduce Missed Clinical Opportunities to Recommend and Administer Vaccines
- Increase Parents’, Caregivers’, and Adolescents’ Acceptance of HPV Vaccines
- Maximize Access to HPV Vaccination Services

http://shar.es/TzFxv
HOW TO ACCELERATE HPV VACCINE UPTAKE IN THE U.S.

Providers

Strong recommendation for HPV vaccination

Use of electronic office systems to support HPV vaccination

Parents, Caregivers, and Adolescents

Communication strategies to increase knowledge regarding cancer prevention benefits, efficacy, and safety of HPV vaccines

HPV You are the Key to Cancer Prevention
Objective 1.2:

Providers should strongly encourage HPV vaccination of age-eligible males and females whenever other vaccines are administered.
HPV Vaccine Communications During the Healthcare Encounter

- HPV vaccine is often presented as ‘optional’ whereas other adolescent vaccines are recommended
- Some expressed mixed or negative opinions about the ‘new vaccine’ and concerns over safety/efficacy
- When parents expressed reluctance, providers were hesitant to engage in discussion
- Some providers shared parents’ views that teen was not at risk for HPV and could delay vaccination until older

Goff S et al. Vaccine 2011;10:7343-9
Hughes C et al. BMC Pediatrics 2011;11:74
Top 5 reasons for not vaccinating daughter, among parents with no intention to vaccinate in the next 12 months, NIS-Teen 2012

- Not recommended: 13%
- Safety concern/Side effects
- Not needed or necessary
- Lack of knowledge
- Not sexually active
## Strength of Clinician Recommendation Influences Intent to Vaccinate

<table>
<thead>
<tr>
<th></th>
<th>Strongly rec’d against it</th>
<th>Rec’d against it</th>
<th>Talked about it but did not offer a rec</th>
<th>Rec’d it</th>
<th>Strongly rec’d it</th>
<th>Did not discuss it</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Got/will get</strong></td>
<td>3.7%</td>
<td>1.1%</td>
<td>11.8%</td>
<td>36.4%</td>
<td>33.7%</td>
<td>13.4%</td>
</tr>
<tr>
<td><strong>Will not get</strong></td>
<td>5.9%</td>
<td>5.1%</td>
<td>21.2%</td>
<td>15.3%</td>
<td>7.6%</td>
<td>44.9%</td>
</tr>
<tr>
<td><strong>Unsure</strong></td>
<td>0.0%</td>
<td>1.5%</td>
<td>15.7%</td>
<td>20.9%</td>
<td>8.2%</td>
<td>53.7%</td>
</tr>
<tr>
<td><strong>Don’t know</strong></td>
<td>2.0%</td>
<td>0.7%</td>
<td>8.5%</td>
<td>19.6%</td>
<td>5.2%</td>
<td>64.1%</td>
</tr>
</tbody>
</table>

2012 SummerStyles (HealthStyles) Survey

#WeCanStopHPV

YOU ARE THE KEY TO CANCER PREVENTION
Most clinicians wait too long to make strong recommendations for HPV vaccine

11-12 y.o. females
- Strongly recommend: 51%
- Recommend, but not strongly: 36%
- Recommend against: 8%

13-15 y.o. females
- Strongly recommend: 79%
- Recommend, but not strongly: 15%

16-18 y.o. females
- Strongly recommend: 85%
- Recommend, but not strongly: 10%

Clinicians underestimate the value parents place on HPV vaccine

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Parent</th>
<th>Provider's estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meningitis</td>
<td>9.4</td>
<td>9.2</td>
</tr>
<tr>
<td>Hepatitis</td>
<td>9.5</td>
<td>9.2</td>
</tr>
<tr>
<td>Pertussis</td>
<td>9.5</td>
<td>9.3</td>
</tr>
<tr>
<td>Influenza</td>
<td>9.3</td>
<td>7.0</td>
</tr>
<tr>
<td>HPV</td>
<td>9.3</td>
<td>5.2</td>
</tr>
<tr>
<td>Adolescent vaccines</td>
<td>9.2</td>
<td>7.8</td>
</tr>
</tbody>
</table>

Support clinicians in recommending HPV vaccine for 11-12 year olds

- Provide lunch-n-learn presentations on giving a strong recommendation for HPV vaccination
- Partner with coalitions and associations to provide CME programs about HPV vaccine
- Work with VFC coordinator to reach practices and clinics with HPV vaccine communication
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.
Objective 1.3:

Healthcare organizations and practices should use electronic office systems, including EHRs and IIS, to avoid missed opportunities for HPV vaccination.
Evidence-based strategies to improve vaccination coverage

- Reminder/recall system
  - Provider level (e.g., EMR prompts)
  - Parent/patient level (e.g., postcards, telephone calls, text messaging)

- Standing orders

- Provider assessment and feedback
  - Assessment of vaccination coverage levels within the practice and discussion of strategies to improve vaccine delivery

- Utilizing immunization information systems

www.thecommunityguide.org/vaccines/universally/index.html
Impact of Reminder/Recall on Vaccination Rates among Adolescents

Percentages of adolescents 11-18 years of age who received any vaccination at 4, 12, and 24 weeks: Text4Health-Adolescents, New York City, 2009

AFIX: Quality Improvement

Assessment

Incentives

Feedback

eXchange
Use data to drive decision-making

- Consider what disparities exist and what can be done to improve coverage.

- AFIX and ordering data can determine which clinicians/practices/clinics need the most assistance.

- State-level data on Tdap and HPV vaccine coverage can highlight missed opportunities.
Joint letter from Minnesota Cancer Alliance and Minnesota Department of Health

Sent to 253 clinics identified via VFC ordering records
Dear Provider,

This is an urgent call-to-action to you and all health care providers in West Virginia. Since you are a medical practitioner concerned with the health and well-being of your patients, we urge you to make a strong recommendation to parents that their children receive the human papillomavirus (HPV) vaccine — a vaccine that prevents several types of cancer in men and women. The timing of HPV vaccination is of great importance. The HPV vaccine is recommended at age 11 or 12 and needs to be administered before the patient has contact with HPV viruses in order to prevent infection.

Unfortunately, efforts to vaccinate children against the HPV virus have stalled. Findings from the 2012 National Immunization Survey have shown that only 45% of girls in West Virginia have begun the HPV vaccine series and only 36% have completed it. Only 18% of boys in West Virginia have begun the vaccination series as well. This is troubling considering that the National Cancer Institute’s State Cancer Profiles lists West Virginia as having the highest incidence...
Objective 2.1:

CDC should develop, test, and collaborate with partner organizations to deploy integrated, comprehensive communication strategies directed at parents and other caregivers, and also at adolescents.
You're not opening the door to sex.

You're closing the door to cancer.

HPV vaccine is cancer prevention.
Talk to your child's doctor about vaccinating your 11–12 year old against HPV.
www.cdc.gov/vaccines/teens

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

HPV YOU ARE THE KEY TO CANCER PREVENTION
If there were a vaccine against cancer, wouldn’t you get it for your kids?

HPV vaccine is cancer prevention. Talk to your doctor about vaccinating your 11-12 year old sons and daughters against HPV.

#UCanStopHPV

You are the key to cancer prevention.
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
Parents: Have you talked to your doctor about HPV vaccine for your kids?
Parents: Did you know that boys and girls need HPV vaccine to prevent cancer?
Patient and Parent Handouts

HPV Vaccine for Preteens and Teens

Vaccines for Preteens and Teens: What Parents Should Know

Why does my child need vaccines now? Vaccines aren't just for babies. Some of the vaccines that babies get can wear off as kids get older. And kids grow up, they may come in contact with different diseases than when they were babies. There are vaccines that can help protect your preteen or teen from diseases that are common among older children.

What vaccines does my child need? Teen vaccines The vaccine protects against three serious diseases: tetanus, diphtheria, and pertussis (whooping cough). Preteens should get Tdap at age 11 or 12. If your teen didn’t get a Tdap shot as a preteen, ask the doctor or nurse about getting the shot now.

MCV4 vaccine Meningococcal conjugate vaccine (MCV4) protects against some of the bacteria that can cause meningitis (swelling of the lining around the brain and spinal cord) and epiglottis (an infection in the throat). Preteens need the MCV4 shot when they are 11 or 12 years old and then they need a booster shot at age 16. Teens who get the MCV4 shot when they are 13, 14, or 15 years old should still get a booster at 16 years. Children who haven’t already gotten any MCV4 shots should get as soon as possible.

What else should I know about these vaccines? These vaccines have all been studied very carefully and are safe and effective. They can cause mild side effects, like soreness or redness where the shot was given. Some older vaccines might have a greater risk of side effects. Kids should not skip doses of these vaccines, even if they don’t feel well.

HPV Vaccine Human papillomavirus (HPV) vaccines protect both girls and boys from HPV infection and cancer caused by HPV. Two HPV vaccines protect girls from the types of HPV that cause most cervical cancer. One HPV vaccine also helps protect girls and boys from other cancers and genital warts. HPV vaccines are given as a series of 3 doses over 6 months when they are 11 or 12 years old. Preteens and teens need to get all 3 shots for full protection. Preteens and teens who haven’t gotten all 3 doses should talk to the doctor or nurse about getting them.

Flu Vaccine This vaccine protects against influenza (flu) and other health problems flu can cause, like dehydration (loss of body fluids), worsening of conditions like asthma or diabetes, or pneumonia. Preteens and teens should get the flu vaccine every year as soon as available, usually in the fall. It is very important for preteens and teens who have chronic health conditions like asthma or diabetes to get the flu vaccine even if they have been vaccinated before.

When should my child be vaccinated? It is a good idea to get these vaccines during a preteen health checkup. Your preteen or teen can also get these vaccines at a physical exam required for sports, school, or camp. It’s a good idea to ask the doctor or nurse about getting the shot now.

The second shot is 1 or 2 months after the first dose, depending on the vaccine. The last shot is given 6 months after the first dose. Then a second shot is given 6 months after the first dose. Then a third shot is given 6 months after the second dose. Then a fourth shot is given 6 months after the third dose. Then a fifth shot is given 6 months after the fourth dose.

How to get help paying for these vaccines? The Vaccines for Children (VFC) program provides vaccines for children ages 18 years and younger, who are not insured or underinsured, Medicaid-eligible, American Indian or Alaska Native. You can find out more about the VFC program by going online to www.wwww.cdc.gov and typing VFC in the search box.

Where can I learn more? For more information about HPV vaccines and other vaccines for preteens and teens, talk to your child’s doctor or nurse. More information is also available on CDC’s Vaccines for Preteens and Teens website at www.cdc.gov/vaccines/preteens/.
Adolescent Immunization Schedule

2014 Recommended Immunizations for Children from 7 Through 18 Years Old

<table>
<thead>
<tr>
<th>7-10 YEARS</th>
<th>11-12 YEARS</th>
<th>13-18 YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus, Diphtheria, Pertussis (Tdap) Vaccine</td>
<td>Tetanus, Diphtheria, Pertussis (Tdap) Vaccine</td>
<td>Tetanus, Diphtheria, Pertussis (Tdap) Vaccine</td>
</tr>
<tr>
<td>Hib</td>
<td>Human Papillomavirus (HPV) Vaccine 1 (Dose)</td>
<td>HPV</td>
</tr>
<tr>
<td>Meningococcal Conjugate Vaccine (MCV) Dose 1</td>
<td>Meningococcal Conjugate Vaccine (MCV) Dose 1</td>
<td>Booster at age 16 years</td>
</tr>
<tr>
<td>Influenza (Flu)</td>
<td>Influenza (Flu)</td>
<td>Influenza (Flu)</td>
</tr>
<tr>
<td>Pneumococcal Vaccine</td>
<td>Pneumococcal Vaccine</td>
<td>Pneumococcal Vaccine</td>
</tr>
<tr>
<td>Hepatitis A (HepA) Vaccine Series</td>
<td>Hepatitis A (HepA) Vaccine Series</td>
<td>Hepatitis A (HepA) Vaccine Series</td>
</tr>
<tr>
<td>Hepatitis B (HepB) Vaccine Series</td>
<td>Hepatitis B (HepB) Vaccine Series</td>
<td>Hepatitis B (HepB) Vaccine Series</td>
</tr>
<tr>
<td>Inactivated Polio Vaccine (IPV) Series</td>
<td>Inactivated Polio Vaccine (IPV) Series</td>
<td>Inactivated Polio Vaccine (IPV) Series</td>
</tr>
<tr>
<td>Mumps, Measles, Rubella (MMR) Vaccine Series</td>
<td>Mumps, Measles, Rubella (MMR) Vaccine Series</td>
<td>Mumps, Measles, Rubella (MMR) Vaccine Series</td>
</tr>
<tr>
<td>Varicella Vaccine Series</td>
<td>Varicella Vaccine Series</td>
<td>Varicella Vaccine Series</td>
</tr>
</tbody>
</table>

FOOTNOTES

1 Tetanus vaccine is combination vaccine that is recommended at age 11 or 12 to protect against tetanus, diphtheria and pertussis. If your child has not received any or all of the DTaP vaccine series, or if you don’t know if your child has received these shots, your child needs a single dose of Tdap when they are 7-10 years old. Talk to your child’s health care provider to find out if they need additional catch-up vaccines.

2 All 11 or 12 year olds – both girls and boys – should receive 3 doses of HPV vaccine to protect against HPV-related diseases. Either HPV vaccine (Cervarix® or Gardasil®) can be given to girls and young women; only one HPV vaccine (Gardasil®) can be given to boys and young men.

3 Meningococcal conjugate vaccine (MCV) is recommended at age 11 or 12. A booster shot is recommended at age 16. Teens who received MCV for the first time at age 13 through 15 years will need a one-time booster dose between the ages of 16 and 18 years. If your teenager missed getting the vaccine altogether, ask their health care provider about getting it now, especially if your teenager is about to move into a college dorm or military barracks.

4 Everyone 6 months of age and older—including preteens and teens—should get a flu vaccine every year. Children under the age of 9 years may require more than one dose. Talk to your child’s health care provider to find out if they need more than one dose.

5 Pneumococcal Conjugate Vaccine (PCV13) and Pneumococcal Polyvalent Vaccine (PPSV23) are recommended for children 6 through 18 years old with certain medical conditions that place them at high risk. Talk to your healthcare provider about pneumococcal vaccines and what factors may place your child at high risk for pneumococcal disease.

6 Hepatitis A vaccination is recommended for older children with certain medical conditions that place them at high risk. HepA vaccine is licensed, safe, and effective for all children of all ages. Even if your child is not at high risk, you may decide you want your child protected against HepA. Talk to your healthcare provider about HepA vaccine and what factors may place your child at high risk for HepA.

For more information, call toll free 1-800-CDC-INFO (1-800-232-4636) or visit http://www.cdc.gov/vaccines/teens

CDC

American Academy of Pediatrics

American Academy of Family Physicians

AMERICAN ACADEMY OF FAMILY PHYSICIANS

STRONG MEDICINE FOR AMERICA

HPV
YOU ARE THE KEY TO CANCER PREVENTION
RECOMMENDED ACTIVITIES

Work with partner organizations to advocate for HPV vaccination

- State and local AAP and AAFP chapters
- Cancer coalitions/alliances/organizations
- American Cancer Society chapters
Old Minnesota State High School League physical assessment form:

<table>
<thead>
<tr>
<th>IMMUNIZATIONS</th>
<th>[Consider Td or Tdap (age 12); MMR (2 required); hep B (3 required); varicella (2 required or history of disease); polio (IPV); influenza]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Up-to-date (see attached school documentation) □ Not up-to-date / Specify__________________________________________________________________________________________</td>
</tr>
<tr>
<td>IMMUNIZATIONS GIVEN TODAY:</td>
<td>____________________________________________________________________________________________________________________________________________________</td>
</tr>
<tr>
<td>Assessment:</td>
<td>□ Cleared for sports without restriction □ Restricted participation (see Clearance Form)</td>
</tr>
<tr>
<td>Plan:</td>
<td>Immunizations: □ Up-to-Date □ Immunize if needed (Required by age 12: DTaP series plus Td with Pertusis (Tdap), 4 Hib, 2 MMR, 3 HBV, 4 IPV, 2 varicella)</td>
</tr>
<tr>
<td></td>
<td>Consider Flu Shot (Asthma, winter athletes) ______________________________________________________________________________</td>
</tr>
<tr>
<td>New language (adds MCV4 and HPV):</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMMUNIZATIONS</th>
<th>[Consider Tdap; meningococcal (MCV4); HPV (3 doses); MMR (2 required); hep B (3 required); varicella (2 required or history of disease); polio (IPV); influenza]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Up-to-date (see attached school documentation) □ Not up-to-date / Specify__________________________________________________________________________________________</td>
</tr>
<tr>
<td>IMMUNIZATIONS GIVEN TODAY:</td>
<td>____________________________________________________________________________________________________________________________________________________</td>
</tr>
<tr>
<td>New language (no distinction between recommended and required):</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMMUNIZATIONS</th>
<th>[Tdap; meningococcal (MCV4, 1-2 doses); HPV (3 doses); MMR (2 doses); hep B (3 doses); varicella (2 doses or history of disease); polio (3-4 doses); influenza (annual)]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Up-to-date (see attached school documentation) □ Not up-to-date / Specify__________________________________________________________________________________________</td>
</tr>
<tr>
<td>IMMUNIZATIONS GIVEN TODAY:</td>
<td>____________________________________________________________________________________________________________________________________________________</td>
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<td>□ Cleared for sports without restriction □ Restricted participation (see Clearance Form)</td>
</tr>
<tr>
<td>Plan:</td>
<td>Immunizations: □ Up-to-Date □ Immunize as needed (Tdap, meningococcal, HPV, MMR, hep B, varicella, polio, influenza)</td>
</tr>
</tbody>
</table>
URGENT CALL TO PREVENT CANCER – TAKE THE HPV VACCINE CHALLENGE

YOUR HELP IS NEEDED TO INCREASE HPV VACCINATION RATES
Health care providers and public health professionals in Massachusetts and across the country have started a campaign to dramatically increase adolescent vaccination rates against HPV. For each year we stay at current vaccination rates, girls and boys will go on to acquire cervical, oral, anal and other HPV-related cancers.

THE PROBLEM
Our three-dose HPV vaccine coverage has stagnated at 33% nationally and missed opportunities for vaccination are high. The CDC, AAP and AAFP recommend that all 11-12 year-olds receive HPV, meningococcal, and Tdap vaccines together.

WHAT CAN PROVIDERS DO?
The most significant factor in parents’ decision to vaccinate their children with HPV vaccine is a clear, brief, and strong recommendation from the child’s healthcare provider. Research shows that simply changing the wording used to introduce the HPV vaccine makes a tremendous difference. Try changing your discussion for one week, and see how it improves your vaccine acceptance.

Providers: TAKE THE HPV VACCINE CHALLENGE
Start your vaccine discussion with all 11 and 12 year-olds and their parents by saying: “Your child needs 3 vaccines today – HPV, Tdap, and meningococcal.”

This simple change works because by putting HPV first, parents perceive that it’s a normal, recommended vaccine, not a controversial or optional vaccine. CDC provides a “Tips and Time-savers for Talking with Parents about HPV Vaccine” resource that translates research into effective communication tools: http://www.cdc.gov/vaccines/who/teens/for-hcp-tipsheet-hpv.pdf
# Suggestions to Improve Your Immunization Services

Following are several ideas that healthcare professionals and practices can use to improve their efficiency in administering vaccines and increase their immunization rates. Read each idea and check the response that applies to your work setting.

- **Yes** = We already practice this.
- **No** = We don’t like this idea, or it couldn’t work in our practice setting.
- **Partly** = We do some of this (or do it sometimes); we will consider it.

<table>
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<tr>
<th>1. In all exam rooms, we post the current, official U.S. immunization schedule for children and/or adults or variations thereof (for example, the official schedule of a medical society or of a state health department).</th>
<th>9. Prior to patient visits, we review the immunization record for each patient and flag charts of those who are due or overdue.</th>
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<td>Yes</td>
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<td>2. We use the official “catch-up” schedule for children for advice on how to bring children up to date on their vaccinations when they have fallen behind.</td>
<td>10. We provide vaccination services during some evening and/or weekend hours.</td>
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<td>Yes</td>
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<td>3. We are familiar with special vaccination recommendations for high-risk patients (e.g., special groups who need hepatitis A, hepatitis B, pneumococcal, influenza vaccines).</td>
<td>11. Patients can walk in during office hours for a “nurse only” visit and get vaccinated.</td>
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<td>4. When scheduling appointments, we remind patients/parents to bring along their (or their child's) immunization record</td>
<td>12. We use all patient encounters (including acute-care and follow-up visits) to assess and provide vaccinations.</td>
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<td>Yes</td>
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<td>5. The medical assistant reminds the patient to bring their child's immunization record</td>
<td>13. Whenever a patient comes in, the staff routinely asks to see his/her immunization record to determine if the patient received vaccinations at another healthcare site.</td>
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<td>Yes</td>
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<td>6. A nurse reminds the patient at each visit of the child’s outstanding immunization needs</td>
<td>14. If a patient tells us “I’m up to date with my vaccinations.”</td>
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<td>Yes</td>
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<td>7. The medical assistant reminds the patient at each visit of the child’s outstanding immunization needs</td>
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<tr>
<td>8. A nurse reminds the patient at each visit of the child’s outstanding immunization needs</td>
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[cdc.gov/vaccines/programs/afix/index.html](http://cdc.gov/vaccines/programs/afix/index.html)
DO SOMETHING EASY TODAY

Get vaccinated.

Teens are at risk for diseases like meningitis, pertussis, and HPV. If you’re not up to date on vaccines, see your doctor. Free or low cost immunizations are available.

Getting over being sick is difficult for anyone. Getting vaccinated is easy.

For more information please visit www.health.state.mn.us/vax4teens

Adapted from the Colorado Department of Public Health and Environment
Preteens and teens are at risk for diseases and need the protection of vaccines to keep them healthy. The vaccines for preteens and teens are important because as kids get older, protection from some childhood vaccines begins to wear off and some vaccines work better when given during adolescence. There are many opportunities for vaccination, so take advantage of health check-ups, sports, or camp physicals to ensure teens receive the recommended vaccines.

Vaccines Recommended for Preteens and Teens

Teen Vaccination Coverage (NIS-Teen)

References & Publications

Free Print Materials

Articles

Podcasts

Videos

Radio PSAs

Recommended Vaccine Schedule

Help protect your teen’s health by getting them vaccinated according to the recommended immunization schedule.

- English [2 pages]
- Spanish [2 pages]
Watch a short video to remind you why YOU are the key to preventing HPV-related cancers. [5:35 mins]

- 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.
HPV Fact Sheet for Clinicians

Sexually Transmitted Diseases (STDs)

HPV Vaccine Information for Clinicians - Fact Sheet

CDC and partners, including the American Academy of Pediatrics, recommend HPV vaccination of both girls and boys at ages 11 or 12 years and suggest that clinicians strongly recommend HPV vaccination for preteens and teens who have not yet been fully vaccinated.

Background

Approximately 20 million people are currently infected with genital human papillomavirus (HPV) in the United States (U.S.). As many as half of these infections are among adolescents and young adults, ages 15 through 24 years of age. HPV is so common that most sexually active adults become infected at some point in their lives.

Of the more than 40 HPV types that infect human mucosal surfaces, most infections are asymptomatic and transient. However, certain oncogenic types that persist can cause cervical cancer and other, less common cancers, including cancers of the anus, penis, vulva, vagina, and oropharynx (back of throat including base of tongue and tonsils). Other, non-oncogenic HPV types can cause genital warts and, rarely, respiratory tract warts in children which is a condition called juvenile-onset recurrent respiratory papillomatosis (JRRP).

cdc.gov/std/hpv/STDFact-HPV-vaccine-hcp.htm
HPV Portal

CDC Home
Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People.

A-Z Index: ABCDEFGHIJKLMNOPQRSTUVWXYZ

Human Papillomavirus (HPV)

Cervical Cancer Screening
The Pap test is recommended for women 21 to 65 years.

Contact Us:
Centers for Disease Control and Prevention
1600 Clifton Rd
Atlanta, GA 30333
800-232-4636
TTY: (888) 232-4636
Contact CDC-INFO

Human papillomavirus (pap-ah-LO-mah-VYE-rus) (HPV) is the most common sexually transmitted virus in the United States. Almost every sexually active person will acquire HPV at some point in their lives.

HPV Topics

What is HPV?
Learn about the health problems caused by HPV and how the infection is spread.

Signs and Symptoms
Discover the signs and symptoms of HPV and related conditions.

HPV Vaccines
Get information about the vaccines that can prevent HPV infection.

HPV Vaccine Safety
Find answers to your vaccine safety questions.

News & Information

- New study shows HPV vaccine helping lower HPV infection rates in teen girls
- HPV vaccine coverage in the U.S.

Professional Resources

Tools for your Practice

cdc.gov/hpv

HPV YOU ARE THE KEY TO CANCER PREVENTION
Continuing Education

Tools for your Practice
Customizable HPV Presentation

To request a presentation, please email: preteenvaccines@cdc.gov
Activities Recommended for Partners

1. **SYNDICATE** content to their website
   - http://tools.cdc.gov/syndication/

2. **DOWNLOAD** mattes article for publications

3. **SHARE** factsheets with parents & clinicians

4. **COLLABORATE** to increase the campaign reach
HPV Vaccine is Cancer Prevention

#WeCanStopHPV

For more information, visit:
cdc.gov/vaccines/YouAreTheKey
cdc.gov/vaccines/teens

Email questions or comments to CDC Vaccines for Preteens and Teens:
PreteenVaccines@cdc.gov

Jill can be reached at:
JRoark@cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.