



# Human Papillomavirus (HPV) Vaccines - Update

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Advisory Committee on Immunization Practices  
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# Outline

- **Selected CDC and other activities after 2-dose recommendation**
- **Overview of ACIP HPV Vaccines Work Group calls/discussions**
- **HPV vaccination coverage and impact in the United States**

# ACIP HPV vaccine 2-dose recommendation and related activities

- **ACIP voted to recommend 2-dose schedule**
  - October 2016
- **MMWR Policy Note published**
  - December 2016
- **Education and communication**
  - Webinars and presentations at scientific conferences
  - CDC websites and fact sheets updated
  - CDC communication campaign
    - Digital media outreach to parents and clinicians

MMWR 2016; 65(49):1405–1408

**PREVENTING CANCER JUST GOT EASIER**

HPV vaccine protects against cancers and other diseases caused by human papillomavirus (HPV). Follow the chart below to determine whether your patient needs two or three doses of HPV vaccine.

<https://www.cdc.gov/hpv/index.html>

# ACIP HPV vaccine 2-dose recommendation and related activities

- **HEDIS**
  - HEDIS 2017 covers performance period for CY2016; this immunization measure (receipt of 3 doses by age 13) will not change
  - HEDIS 2018 measure has been updated to reflect new 2-dose schedule
- **Clinical Decision Support for Immunization (CDSi)**
  - Resources revised
- **National Immunization Survey (NIS) - Teen**
  - 2-dose coverage criteria for NIS-Teen 2016 added to measure for up-to-date vaccination

# Policy issues discussed by HPV Vaccines Work Group

- **Wording for routine target age group recommendation**
- **Harmonization of upper age for male and female vaccination**

# Policy issues: Wording for routine target age group

- **Current routine recommendation**
  - ACIP recommends routine HPV vaccination at age 11 or 12 years
  - Vaccination can be given starting at age 9 years
- **Potential alternative wording**
  - Routine vaccination at age 9 through 12 years

# Policy issues: Wording for routine target age group

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- **Potential alternative wording**
  - Routine vaccination at age 9 through 12 years
- **Work Group deliberations**
  - Reviewed data and discussed with AAP
    - Most Work Group members favored current wording
  - Decision by ACIP Work Group
    - Will not bring forward any change for consideration by ACIP
    - Ensure option for starting series at age 9 years evident on schedules/other materials
  - AAP/COID recommendations will remain consistent with ACIP
    - Recommend starting the series between 9 and 12 years, at an age the provider deems optimal for acceptance and completion of the vaccination series

# Policy issues: Harmonization of upper age for male and female HPV vaccination

- **Current recommendation\***
  - ACIP recommends vaccination for females through age 26 years and for males through age 21 years who were not previously adequately vaccinated
  - Males aged 22 through 26 years may be vaccinated
  - Recommendations for specific groups to receive HPV vaccine through age 26 years
- **Alternative policy and discussion**
  - Harmonization of upper age: through age 26 years for males and females
  - Many Work Group members favor simplification of vaccination schedule through extension of the male age recommendation



# Policy issues: Harmonization of upper age for male and female HPV vaccination

- **In 2011, ACIP recommended vaccination of males\***
  - Used GRADE for consideration of evidence and recommendations
- **In 2017, ACIP HPV Vaccines Work Group reviewed**
  - Updated cost effectiveness modeling data
  - Vaccine coverage among males overall and MSM
- **Work Group plans to use new Evidence to Recommendations framework**
  - Present to ACIP in 2018

GRADE, Grading of Recommendations, Assessment, Development and Evaluation  
MSM, men who have sex with men

\*MMWR 2011;60:1705-8

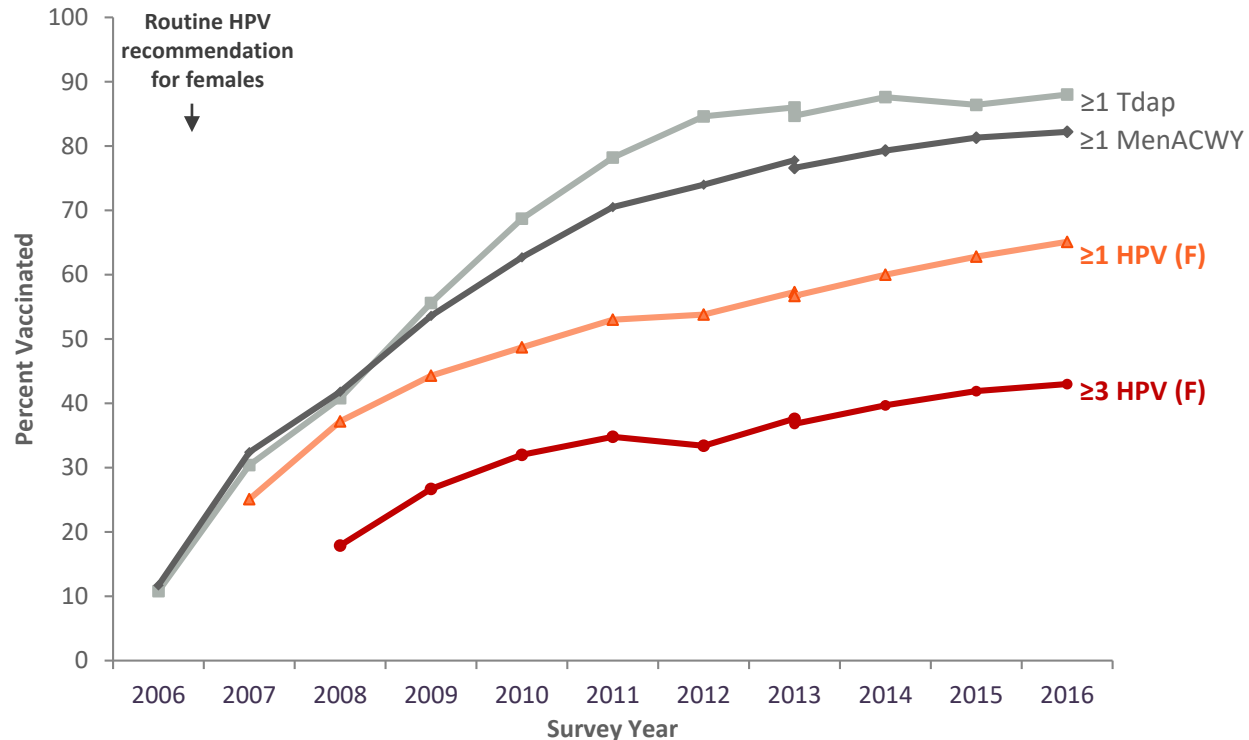
# Overview of ACIP HPV Vaccines Work Group calls/discussions over past year

- **Other topics/data reviewed**
  - Simplification of footnotes for child/adolescent and adult schedules
  - 9-valent HPV vaccine safety
    - Update of ongoing analyses; no safety concerns
    - Immunization Safety Office (ISO) to present data to ACIP in February 2018

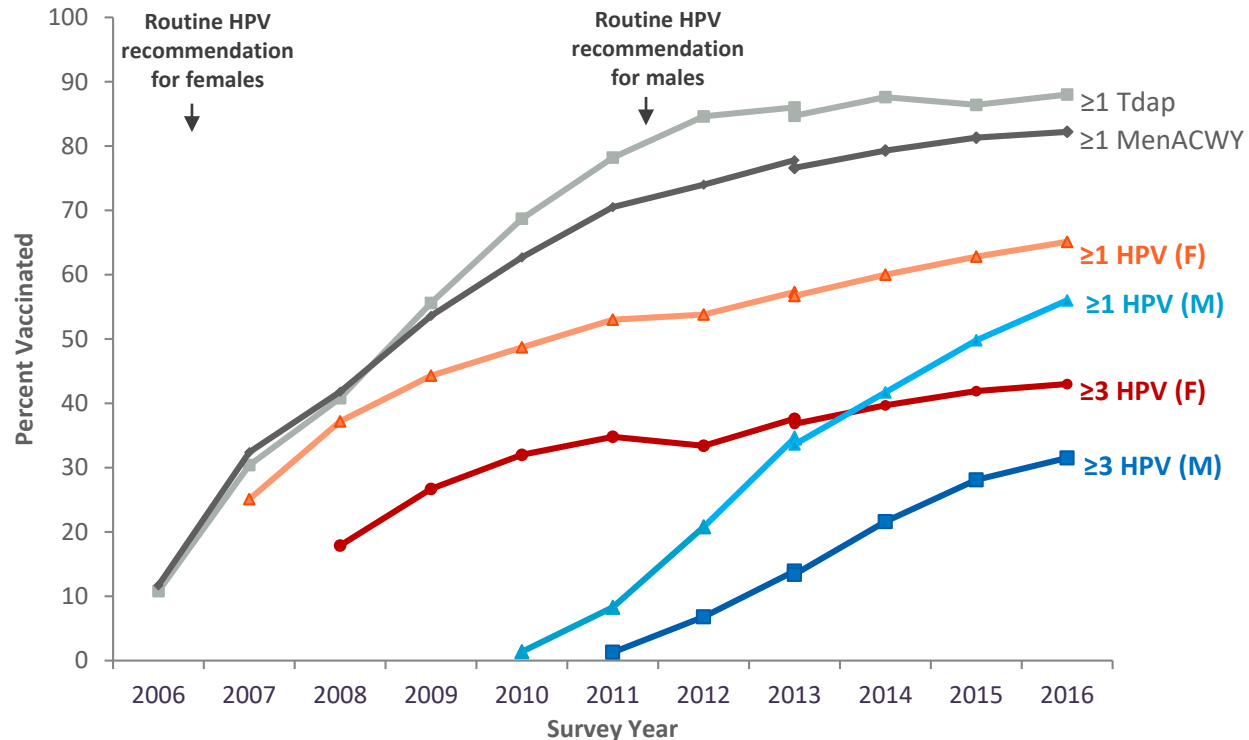
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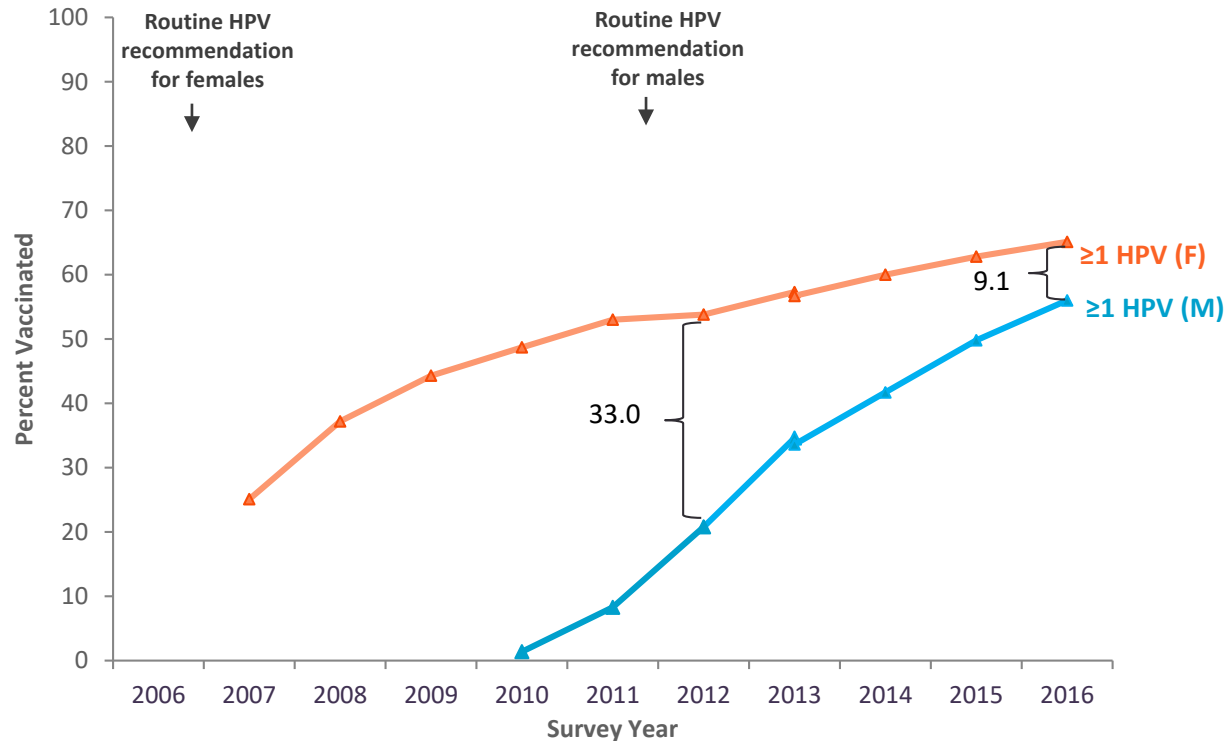
# Estimated vaccination coverage among adolescents aged 13–17 years, NIS-Teen, United States, 2006–2016



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# Estimated HPV vaccination coverage among adolescents aged 13-17 years and new up-to-date measure, NIS-Teen, United States, 2016

Number of doses	% (95% CI)
≥1 dose	60.4 (±1.2)
≥2 doses	49.2 (±1.3)
≥3 doses	37.1 (±1.2)
<b>HPV UTD</b>	<b>43.4 (±1.3)</b>

**HPV UTD:** new measure added for adolescents considered to be up to date with the HPV vaccine series if they have received ≥3 doses of HPV vaccine, or 2 doses according to current recommendation

# Monitoring impact of HPV vaccination

- HPV prevalence
- Genital warts
- Juvenile onset recurrent respiratory papillomatosis
- Cervical precancer lesions
- HPV-associated cancer

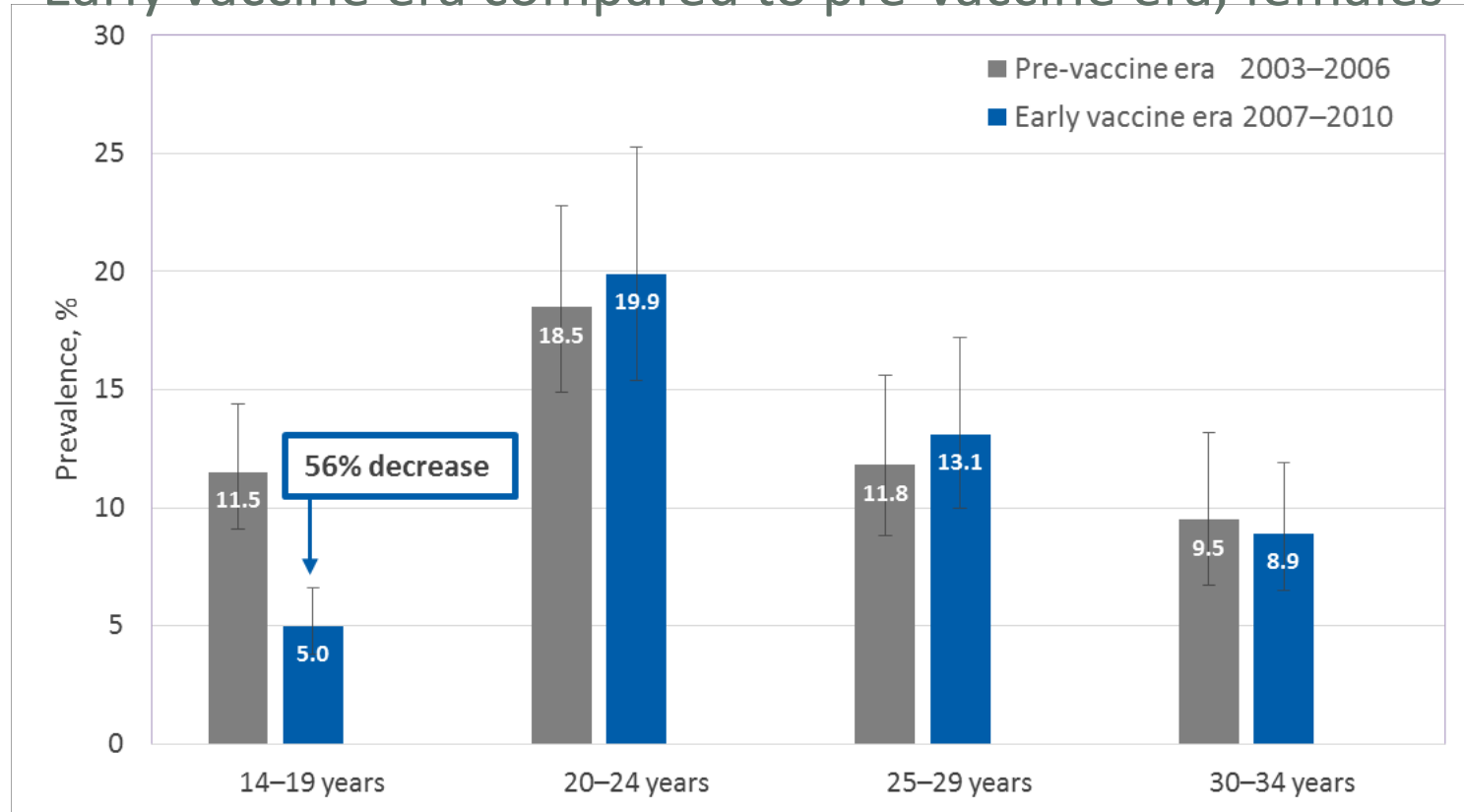


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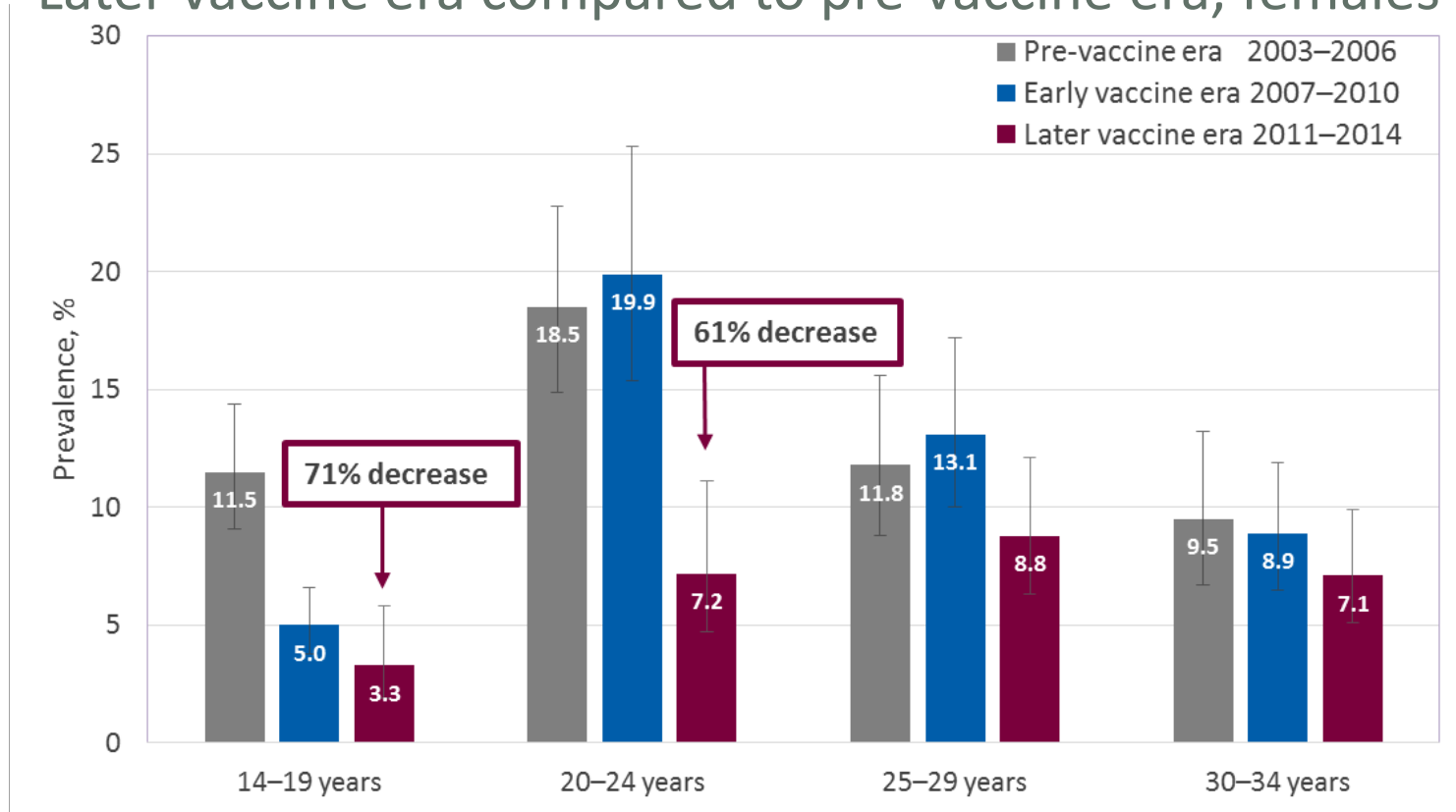
# Vaccine type prevalence (HPV 6,11,16,18), NHANES

Early vaccine era compared to pre-vaccine era, females



# Vaccine type prevalence (HPV 6,11,16,18), NHANES

Later vaccine era compared to pre-vaccine era, females



## Future plans – 2018 ACIP meetings

- Harmonization of upper age for male and female vaccination
- 9vHPV safety – post-licensure monitoring
- Impact of HPV vaccination in the United States

# ACIP HPV Vaccines Work Group

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Jose Romero

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Thank You

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