February NVAC HPV Session Review

Summary of presentations by:

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HPV-ASSOCIATED CANCERS UNITED STATES, 2004-2008

Anatomic Area	Average annual number of cases*	Estimated+ HPV attributable	Estimated+ HPV 16/18 attributable
Cervix	11,967	11,500	9,100
Vagina	729	500	400
Vulva	3,136	1,600	1,400
Anus (F)	3,089	2,900	2,700
Oropharynx (F)	2,370	1,500	1,400
Total (Females)	**21,291**	**18,000**	**15,000**
Penis	1,046	400	300
Anus (M)	1,678	1,600	1,500
Oropharynx (M)	9,356	5,900	5,600
Total (Males)	**12,080**	**7,900**	**7,400**

- Defined by histology and anatomic site; Watson M et al. Cancer 2008. Data source: National Program of Cancer Registries and SEER, covering 100% coverage of US population. + Gillison ML, et al. Cancer 2008 .
- Ref: Watson et al, Human Papillomavirus-Associated Cancers MMWR 2012;61(15):258-261.

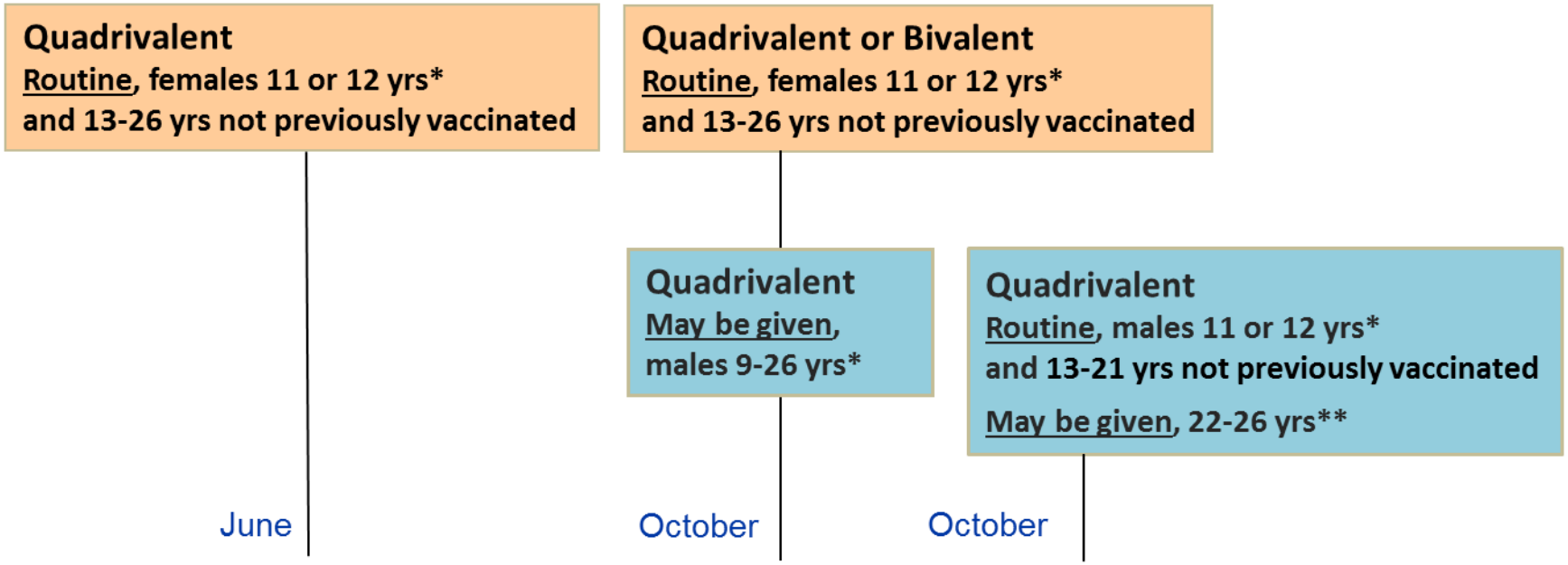
HPV VACCINES

	Quadrivalent (Gardasil)	**Bivalent** (Cervarix)
Manufacturer	Merck	GlaxoSmithKline
VLP types	6, 11, 16, 18	16, 18
Schedule (IM)	3 doses	3 doses
	Estimated to protect against	
Genital warts	90%	-
Cervical cancers*	70%	70%

* And majority of other HPV- associated cancers

VLP – virus like particle; IM - intramuscular

Evolution of recommendations for HPV vaccination in the United States



Quadrivalent (HPV 6,11,16,18) vaccine; Bivalent (HPV 16,18) vaccine

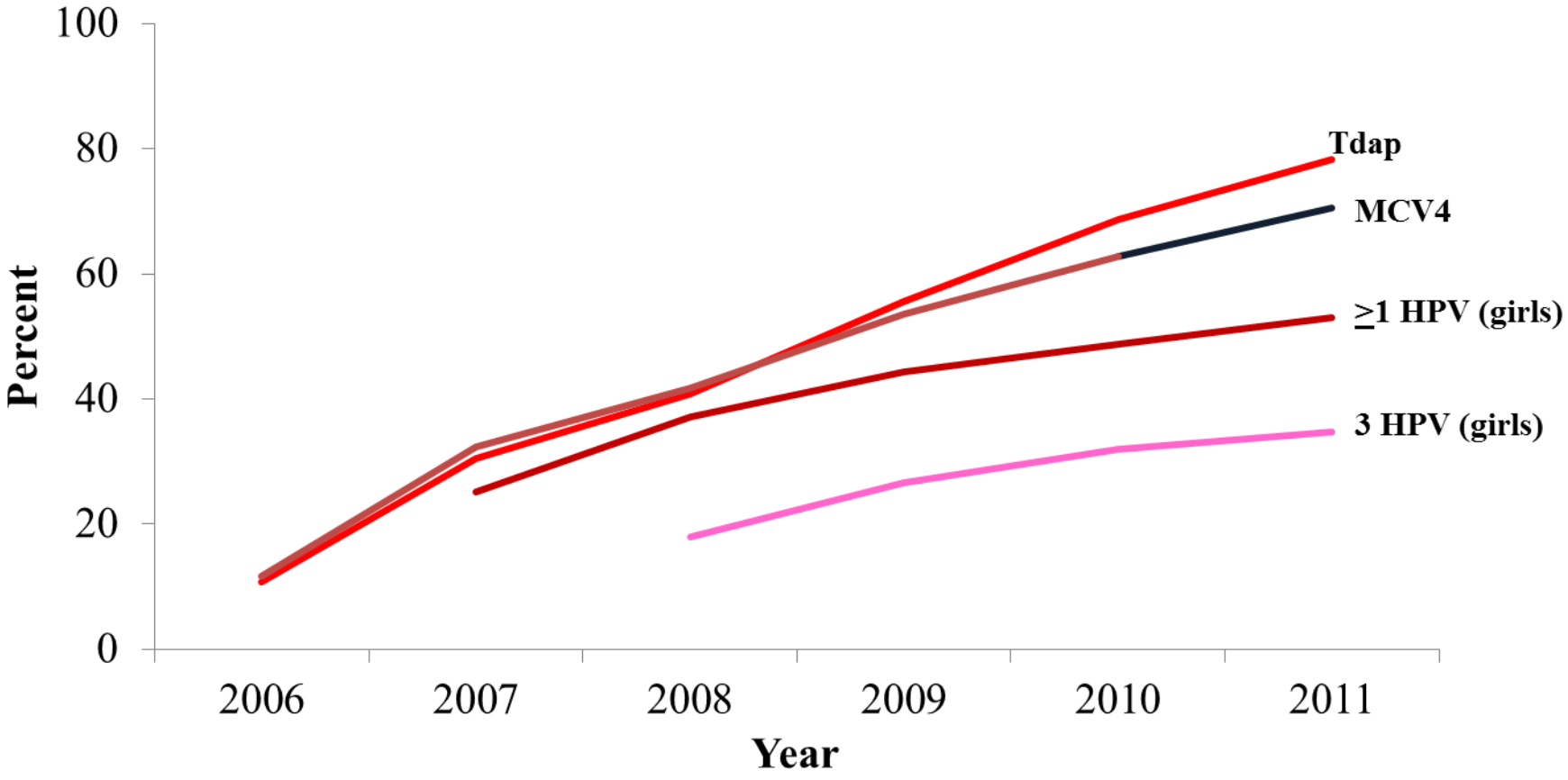
* Can be given starting at 9 years of age; ** For MSM and immunocompromised males, quadrivalent HPV vaccine through 26 years of age

US HPV Vaccination Program

- **HPV is one of several vaccines recommended for the adolescent age group**
- **Majority of vaccines are administered in primary care provider offices and publicly funded clinics**
- **National survey of physicians found that 98% of pediatricians and 88% of family physicians stocked and administered HPV vaccine***
- **Vaccine covered by most private health insurance companies and government insurance programs**
- **In 2011, 39.4% of adolescents 13-17 years of age were eligible for VFC vaccine**

*Daley et al. Pediatrics. 2010;126:425-433.

National Estimated Vaccination Coverage Levels among Adolescents 13-17 Years, NIS-Teen 2006-2011



CDC. MMWR. 2012;61:671-677

HPV Vaccination Uptake among Adolescents

- **Completion of the series**
  - Below 40% for girls
  - Below 10% for boys
- **Unusual disparities by race and SES**
  - Higher coverage among black and Hispanic adolescents
  - Higher coverage among adolescents living below the poverty level

Perceived Barriers

- **Provider**
  - Not giving a strong recommendation
  - Delaying vaccination and/or missed opportunities
  - Limited time for discussion with parents
  - Reimbursement
  - Access to adolescents – many do not schedule routine visits at this age
- **Patients**
  - Knowledge
  - Perceptions (STD, not needed, child not yet sexually active, not safe)
  - Cost
- **Vaccine**
  - 3 doses over 6 months does not fit into any adolescent's scheduled doctor visits
  - New vaccine
  - No cultural norm or expectation established for this vaccine
- **Policy/System**
  - Mandates are not there
  - HP2020 only covers females

Recommendations

- **Provider**
  - CDC
    - Promote providers in giving a strong recommendation
    - End missed opportunities
    - Do not delay vaccination
    - Implement evidence-based strategies to improve vaccine delivery
  - Panel
    - Educate providers about cancer prevention benefit, safety and efficacy to promote more doctors giving a strong recommendation
    - End missed opportunities
    - Alternative sites (Pharmacies, Clinics, Schools, etc.)
  - 2008 NVAC Adolescent vaccination working group recommendation
    - Alternative sites (Pharmacies, Clinics, Schools, etc.)

School located vaccinations have been tried and there are challenges

- Adolescent participation is low
- The cost to provide vaccination in schools can be quite high
- Billing health plans is challenging and may not be sufficient to recover program costs

Recommendations

- **Patients**
  - CDC
    - Increase awareness
    - Reframe: HPV vaccine is a tool to help prevent cancer; it is most effective if given before exposure to the HPV virus
  - Panel
    - Targeted media campaign for specific populations
    - Reframe as vaccine for cancer prevention
    - Create adolescent health platform, like the childhood immunization platform so parents have an expectation of which vaccines are required
  - 2008 NVAC recommendations
    - Targeted media campaign for specific populations

Recommendations

- **Vaccine**
  - Panel
    - Research to evaluate whether 3 doses is necessary
    - New vaccine – continue to monitor safety

Recommendations

- **Policy/System**
  - Panel
    - Reminder/recall
    - Registries (alternative sites would be required to use registries)
    - Mandates
    - Adolescent consent
  - 2008 NVAC Recommendation
    - Mandates
    - Adolescent Consent
    - Financing – lower cost
    - Surveillance
      - More detailed data needed on coverage rates, provider recommendations, public attitudes, etc. for specific populations/locations

HPV working group charge

The Assistant Secretary for Health (ASH) asks the National Vaccine Advisory Committee (NVAC) to review the current state of HPV immunization, to understand the root cause(s) for the observed relatively low vaccine uptake (both initiation and series completion), and to identify existing best practices all with a goal of providing recommendations on how increase use of this vaccine in young adolescents.

Member	Organization
NVAC Members	
Sarah Despres	NVAC Chair
Wayne Rawlins	NVAC Chair
Walt Orenstein	NVAC
Philip Hosbach	NVAC
Vish Viswanath	NVAC
Julie Morita	NVAC
Mitch Rothholtz	NVAC
Richard Beigi	NVAC
NVAC Liaison Members	
Anne Bailowitz	NACCHO
David Salisbury	UK Department of Health
External Members	
Nancy Lee	HHS Office of Women's Health
Valerie Borden	HHS Office of Women's Health
Kim Martin	ASTHO
Jamie Loehr	AAFP
Douglas Lowy	NIH/NCI
Rodney Willoughby	AAP
Jessica Kahn	Society of Adolescent Health and Medicine
Mary Beth Hance	CMS/CMCS
Linda Eckert	ACOG
James Turner	American College Health Association
Noel Brewer	UNC
Nicole Bobo	National Association of School Nurses
Rebecca Gold	CDC
NVPO	
Bruce Gellin	NVPO
Sharon Bergquist	NVPO
Katy Seib	Emory