




FENWAY HEALTH



**PROMOTING HPV VACCINATION
AMONG ADULT PATIENTS**

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**PRESENTER DISCLOSURE
INFORMATION**



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Off Label Use of Vaccines	May be discussed, but in accordance with current ACIP recommendations

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LEARNING OBJECTIVES

1. Describe HPV vaccination recommendations
2. Review disparities in HPV vaccine uptake according to age, sexual orientation, gender identity, race and ethnicity
3. Identify effective communication strategies to increase HPV vaccine uptake
4. Analyze and provide solutions to address provider and systems barriers to HPV vaccination.

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HUMAN PAPILLOMAVIRUS

- Double stranded DNA virus
- More than 150 types
 - ~ 40 types defined by genital/mucosal sites of infection
 - Low-risk (6, 11) associated with 90% of genital warts
 - High-risk (16, 18) associated with anogenital & oropharyngeal cancers

Schiffman M, Castle PE, Jeronimo J, Rodriguez AC, Wacholder S. Human papillomavirus and cervical cancer. *Lancet* 2007; 370(9593):890-907.
 Muñoz N, Bosch FX, Castiblanco X, et al. Against which human papillomavirus types shall we vaccinate and screen? The international perspective. *International Journal of Cancer* 2004; 111(2):278-285.
 Watson M, Saraiya M, Ahmed F, et al. Using population-based cancer registry data to assess the burden of human papillomavirus-associated cancers in the United States: overview of methods. *Cancer* 2008; 113(10 Suppl):2841-2854.

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HPV EPIDEMIOLOGY

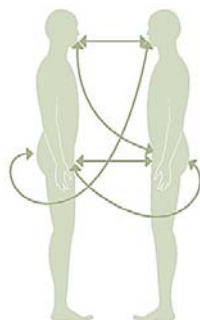
(PRE-VACCINE)

- HPV infection is prevalent
 - 79 million Americans are currently infected
 - 14 million people become newly infected annually
 - 75 to 80% of unvaccinated sexually active adults will acquire a genital tract HPV infection before the age of 50
- Usually acquired shortly after onset of sexual activity
- Cancer is a rare outcome

Beuner KR. Nongenital human papillomavirus infections. *Clin Lab Med* 2000; 20:423-432.
 Satterwhite CL, Tornone E, Meites E, et al. Sexually transmitted infections among U.S. women and men: prevalence and incidence estimates, 2008. *Sex Transm Dis* 2013;40:187-193.

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HPV TRANSMISSION



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EPIDEMIOLOGY SEXUAL MINORITY POPULATIONS (MSM)

- Prevalence of high-risk anal HPV (types 16,18) among MSM is high:
 - 37% among HIV-uninfected MSM
 - 74% among HIV-infected MSM
- Since HPV is spread via any sexual contact, everyone should be vaccinated

Machalek DA, Poynten M, Jin F, et al. Anal human papillomavirus infection and associated neoplastic lesions in men who have sex with men: a systematic review and meta-analysis. *Lancet Oncol* 2012; 13:487.

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EPIDEMIOLOGY SEXUAL MINORITY POPULATIONS (WSW)

- HPV is transmitted via all kinds of sex and sharing of sex toys
- Lesbians and other WSW are at risk for infection from both F and M sex partners
- Same prevalence of cervical HPV (13-30%) among exclusive WSW and WSM
- Increased cervical cancer risk factors (less likely to access screenings, more likely to smoke)

Kerker BD, Mostashari F, Thope L. Health care access and utilization among women who have sex with women: Sexual behavior and identity. *J Urban Health*. 2006;83(5):970-979.
Marrero JM. Papilloscobov test screening and prevalence of genital human papillomavirus among women who have sex with women. *Am J Public Health*. 2001 Jun;91(6):947-52.
Roberts SJ, et al. Health related behaviors and cancer screening of lesbians: Results of the Boston Lesbian Health Project II. *Women Health*. 2004;39(4):41-65.

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

YOU ARE THE KEY TO CANCER PREVENTION

ACIP HPV9 RECOMMENDATIONS

- Routine HPV vaccination recommended for males and females ages 11-12 years
- Catch-up recommended:

Age	13-21	22-26*
Females	3 Doses	
Males	3 doses	3 doses**

* Until 27th birthday

**For men who have sex with men or immunocompromised individuals

Advisory Committee on Immunization Practices Recommended Immunization Schedule for Adults Aged 19 Years or Older — United States, 2014 Source: MMWR, February 7, 2014; 63(5):110-112

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VACCINE SCHEDULE



Advisory Committee on Immunization Practices Recommended Immunization Schedule for Adults Aged 19 Years or Older — United States, 2014 Source: MMWR, February 7, 2014; 63(5):110-112

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SAFE, EFFECTIVE, LASTING PROTECTION

- HPV Vaccine is SAFE
 - Safety studies findings for HPV vaccine similar to safety reviews of MCV4 and Tdap vaccines
- HPV Vaccine WORKS
 - High grade cervical lesions decline in Australia (80% of school aged girls vaccinated)
 - Prevalence of vaccine types declines by more than half in United States (33% of teens fully vaccinated)
- HPV Vaccine LASTS
 - Studies suggest that vaccine protection is long-lasting; no evidence of waning immunity

Goldman et al. Proc Natl Acad Sci U S A. 2011; 108(10):4111-4116. doi:10.1073/pnas.1018111108. Copyright © 2011 National Academies Press

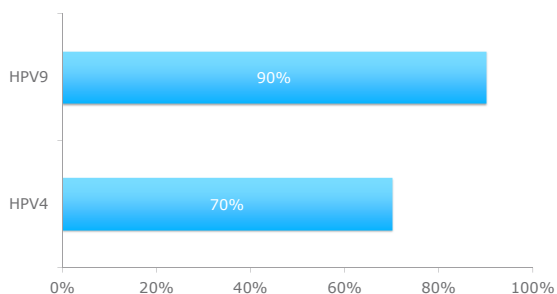


HPV9 VACCINE

- FDA approved in December 2014
 - Females 9-25
 - Males 9-15
- 96.9% reduction in cervical, vulvar, vaginal intraepithelial hyperplasia and adenocarcinoma caused by HPV types 31, 33, 45, 52, 58
- 78% effective in anal cancer prevention (same as Gardasil)

Merck, EUROGIN Abstract SS 8-4, Nov 2013
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Percent of cervical cancers caused by vaccine-preventable HPV types



Elmar, J. et al. A 9-Valent HPV Vaccine against Infection and Intraepithelial Neoplasia in Women. N. Eng. J. Med. 2015; 372 (8): 711
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CONSIDERATIONS: HPV9

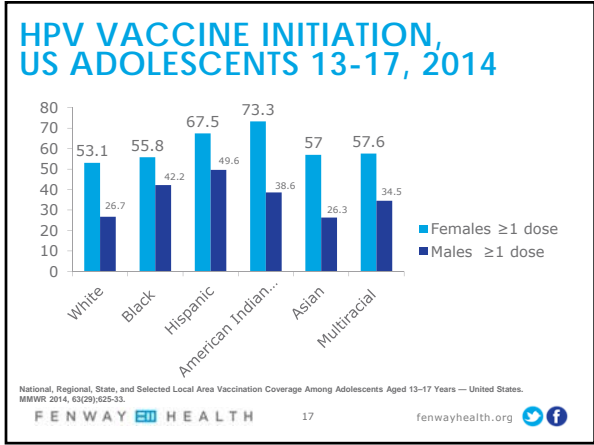
- HPV4 likely will continue to be available for 12-18 months post HPV9 licensure
- ACIP: HPV9 recommendations currently under discussion
 - Switch to HPV9 if mid-series with HPV4
 - Revaccination?
 - Clarify age eligibility for males

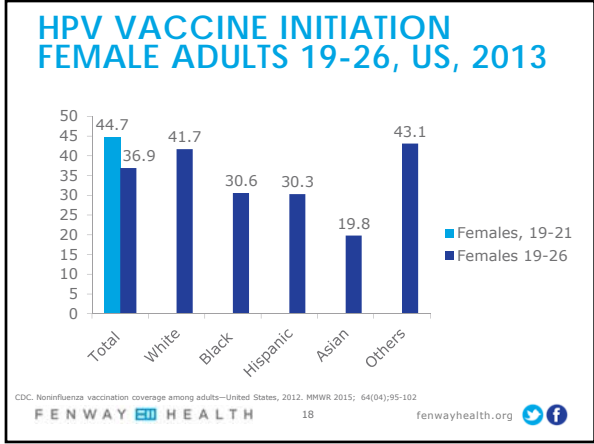
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WHAT SHOULD PROVIDERS DO WITH HPV4 CURRENTLY AVAILABLE

- Keep vaccinating with HPV4
- Do **not** postpone vaccination until HPV9 available
- Avoiding missed opportunities is critical.

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DISPARITIES IN COMPLETION BY RACE/ETHNICITY

- If they initiate, whites are twice as likely to complete the series than Black counterparts
- Common reasons for not completing series:
 - Unaware of need for subsequent doses, side effects, time, inconvenient clinic locations
 - These issues more common among low-income women who may have limited English proficiency, low health literacy, inflexible work hours, or limited child care options

Jedyn, Patricia et al Race, Ethnicity, and Income Factors Impacting Human Papillomavirus Vaccination rates. Clinical Therapeutics, Volume 36, Issue 1, 24 - 37
 Joudis P, Laverghie E, del Carmen MG, Parkins RB. Race, ethnicity and income as factors for HPV vaccine acceptance and use. Human Vaccines & Immunotherapeutics 2013; 9:1413 - 1420

DISPARITIES IN HPV KNOWLEDGE/ INITIATION AMONG SEXUAL MINORITY WOMEN

- No significant difference in having heard of the HPV vaccine between lesbians and heterosexual women (92.1% vs. 84.8%)
- Lesbian-identified women were significantly less likely to receive at least one dose of the vaccine (5% vs. 28.5%)

Date: National Survey of Family Growth, 2006-2010
 Madrina Aguirre, Sarah Patzfelder, Allegra R. Gordon, Sebastian Haneuse, Jennifer E. Potter, S. Bryn Austin. Sexual orientation identity disparities in human papillomavirus vaccine knowledge and initiation in a national probability sample of young U.S. women. Under Review.

SYSTEMS-BASED APPROACH TO INCREASING VACCINATION

1. Increase client demand for vaccinations
 - Client-centered educational materials
 - Reminder systems
2. Enhance access to vaccines
 - Reduce out-of-pocket costs
 - Expanded access in health-care settings
3. Provider reminders and education

Guide to Community Preventive Services. Increasing appropriate vaccination: health care system-based interventions implemented in combination. www.thecommunityguide.org/vaccines/university/health-system-to-vaccines.html

INCREASING VACCINE UPTAKE

The most important predictor of vaccination in the clinical setting is a **strong recommendation** from a health-care provider

Community Preventive Services Task Force. The guide to community preventive services. Increasing appropriate vaccination: provider reminders [Internet]. Atlanta (GA): the Task Force; 2008. Jun [updated July 2013].
Dorell C, et al. Factors that influence parental vaccination decisions for adolescents, 13 to 17 years old: National Immunization Survey-Teen, 2010. Clin Pediatr (Phila) 2013;52:162-70.

COUNSELING STRATEGIES

- Focus on HPV vaccination as a tool to prevent multiple cancers
- Emphasize the importance of vaccinating people of all genders
- Emphasize the importance of vaccinating the primary target age group (11- to 12-year-olds)
- Promote catch-up vaccination for older adolescents and young adults
- Reinforce HPV vaccine efficacy and safety

Reducing the Burden of HPV-associated Cancer and Disease through Vaccination in the US. CDC Grand Rounds. Accessed from: <http://www.cdc.gov/od/oc/grandrounds/archives/2013/february/2013.htm>

FRAMING THE HPV VACCINE CONVERSATION

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 76,000 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. That way, 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.

IDENTIFY AN IMMUNIZATION CHAMPION

A champion can:

- Be any staff member
- Generate support and cooperation from coworkers
- Spearhead QI activities to reduce barriers and increase vaccination
- Involve all office staff in the effort



EDUCATIONAL MATERIALS

Goal: Create resource containing key messages that:

- Explain HPV, risk factors, prevention, relationship between HPV and associated cancers
- Are gender-neutral and appropriate for people of all sexual orientations
- Address perceived barriers

Blackwell, C. Human Papillomavirus and Anal Cancer Knowledge in Men Who Have Sex With Men. Journal of the Association of Nurses in AIDS Care, Vol. 21, No. 6, November/December 2011, 444-453
 Gerend, M. Increasing Human Papillomavirus Vaccines: Acceptability by Tailoring Messages to Young Adult Women's Perceived Barriers. Sexually Transmitted Diseases & Volume 40, Number 5, May 2013, 401-405



FENWAY HPV BROCHURE



Shared widely:

- Exam and waiting Rooms
- Fenway Health Blog, Tumblr, and other social media accounts
- 6,640 notes** on Tumblr
- Outreach and education events



PROJECT PLANNING TOOLS

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Framework: Plan-Do-Study-Act

Continuous Quality Improvement – PDSA Cycle

- act**
 - Adapt and publish lessons learned and best practices
 - Develop standards and policies
- plan**
 - Identify priority population
 - Engage population
 - Develop goals and strategies
 - Identify resources
 - Identify partners
- do**
 - Outreach
 - Education
 - Immunization
 - Data Collection
- study**
 - Analyze data
 - Learning Lab

YOU ARE THE KEY TO CANCER PREVENTION

LOGIC MODELS

A summary of your project

- What you put in, do, and achieve
- Clarifies the strategy underlying your program
- Details the relationship between actions and results
- Communicates what your project activities include
- Forms a basis for evaluation

Logic Model Development Guide, W.K. Kellogg Foundation, 1998.

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Program:
Situation:

Inputs	Activities	Outputs	Participation	Short-Term Outcomes - Impact	Long-Term Outcomes - Impact
(Eg: What we invest)	(Eg: What We Do)	(Eg: What we create)	(Eg: Learning, Awareness, Knowledge, Attitudes, Skills, Opinions, Expectations, Motivations)	(Eg: Action - Behavior, Practice, Decision making, policies, Social action)	(Eg: Conditions - Social, Economic, Civic, and Environmental)

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Program:
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(Eg: What we invest)	(Eg: What We Do)	(Eg: What we create)	(Eg: Learning, Awareness, Knowledge, Attitudes, Skills, Opinions, Expectations, Motivations)	(Eg: Action - Behavior, Practice, Decision making, policies, Social action)	(Eg: Conditions - Social, Economic, Civic, and Environmental)
Staff Technology Time	Patient Outreach - Reminder calls/letters - Design patient education materials	# Patients # Providers	# patients contacted by phone or email # vaccines administered	% of eligible patients vaccinated (provider behavior change)	Reduced incidence of HPV-related genital warts and cervical dysplasia

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ACTIVITY

Complete a logic model identifying existing resources, activities, and achievable goals for increasing vaccine uptake at your site.

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MEDICAL TEAM PROCESS

- Bundled vaccine efforts with other preventive services
 - Identified eligible patients during huddles
 - Requested outside records automatically for all new patients
→ Process confirms records received
 - Trained medical assistants to enter immunization records into EMR.

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STANDING ORDERS

Title: MED-MEDSO-13 Immunization Standing Orders
Chapter: Medical, Medications and Standing Orders

- Purpose:** The following are the orders approved by the Medical management of the clinic in order to expedite the service we provide and to maintain low the cost incurred by our patients. The following is a list of immunizations that a Registered Nurse or a Licensed Practical Nurse (LPN) can give. Medical Assistants are permitted to administer PPD's.
- Responsibility:** Medical Department Staff
- Procedure:** This Standing Order only applies to patients 18 years or older, or for those institutions with which we have a contract to provide health services.

In all cases the vaccine information statement will be reviewed with the patient, and any relevant precautions against receiving the shot be heeded.

A Fenway Health provider must be in the healthcare center when administering a vaccine or medication in case of an adverse reaction.

Any allergies and all immunizations given to our patients will be recorded in the medical record.

COVERED VACCINATION LISTING:

- HAV (Hepatitis A)
- HBV (Hepatitis B)
- Hepatitis A and B combination vaccine
- HPV (Human papillomavirus). May be administered to any patient (male or female), between 18 and 27.
- Influenza. May be given between September and March.

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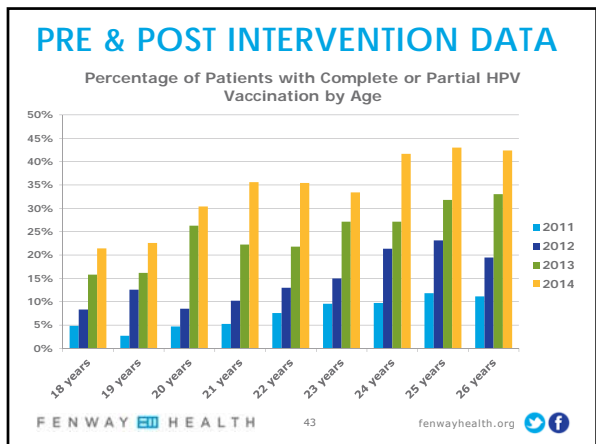
SYSTEMS PROMPTS AND PROTOCOLS

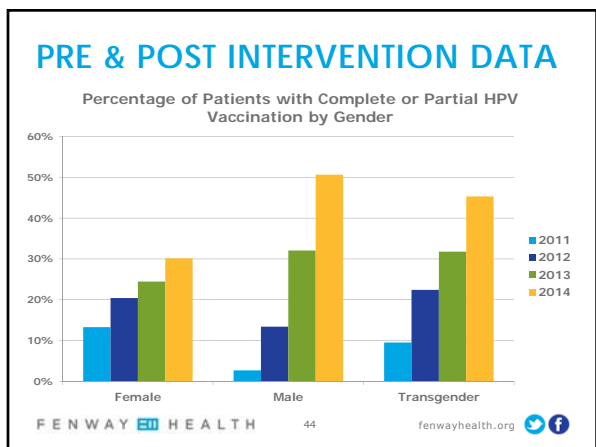
Services Due
BREAST PALP, BP DIASTOLIC, BP SYSTOLIC, BP DIASTOLIC, BP SYSTOLIC, HPV#3 MFR, HPV#2 MFR, HPV VAX MFR, PAP SMEAR, DVSCRN_COMPL or IPVREFUSED.

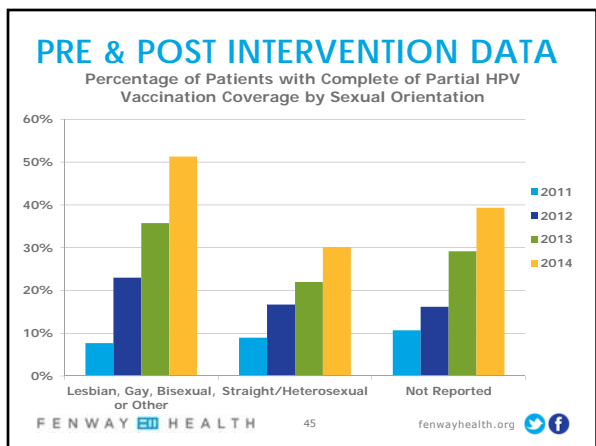
Protocol "HPV Vaccination" :
Patients of either sex with an age of greater than 9 months, and less than 27 years.
Should have the following:

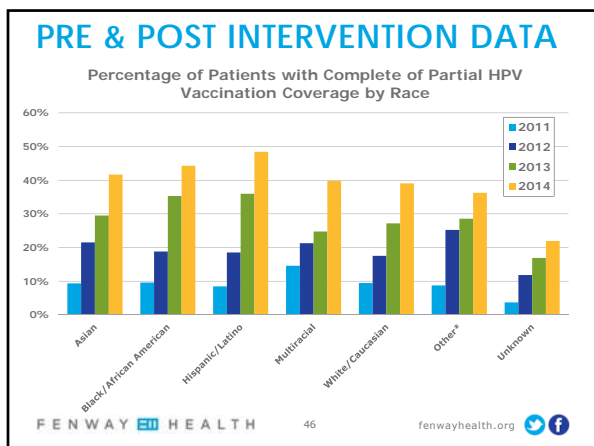
Test	Schedule	Last Done	Last Ret	Status
HPV#3 MFR	Every 100 years			Due Now
HPV#2 MFR	Every 100 years			Due Now
HPV VAX MFR	Every 100 years			Due Now

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FURTHER OPPORTUNITIES TO INCREASE UPTAKE

- 1) Vaccine administration during walk-in hours or at pharmacy
- 2) Link to MIIS to better identify unvaccinated or partially vaccinated patients
 - Outreach to unvaccinated patients

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Massachusetts Immunization Information System

About the MIIS

- ✓ **Secure, confidential web-based system capable of electronic data exchange and direct data entry**
- ✓ **Consolidates immunization records over lifespan**
- ✓ **Assists providers with clinical decision support**
 - ✓ Helps identify due or overdue immunizations
 - ✓ Prevents over/under immunization
- ✓ **Patient immunization and vaccine usage reports**
- ✓ **Provides infrastructure for tracking essential information during public health emergencies**
- ✓ **Includes practice management tools**

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