

Improving Adult Immunizations Through Implementing the Standards for Adult Immunization Practice

Vaccines for Adults Program (VFA) Webinar
June 28, 2018

Goals of Presentation

- ❑ **Provide information on**
 - Burden of vaccine-preventable disease and illness
 - Recommended adult vaccines
 - Current adult vaccination rates
- ❑ **Review “Practice Standards for Adult Immunization”**
- ❑ **Provide resources for implementing the “Practice Standards”**
- ❑ **Provide a VFA Program update**

Burden of Disease Among U.S. Adults for Diseases with Vaccines Available

- **Pneumococcal disease**
 - 33,900 cases, 3,700 deaths in 2013
 - 89% cases, almost all deaths among adults
- **Zoster**
 - ~1 million cases annually
 - Incidence increases with age, <1 case/1000 children to >15 cases/1000 adults ≥80y
 - 10–18% adults ≥50y with zoster will go on to develop PHN
- **Hepatitis B**
 - Incidence among children and adolescents <19y – 0.2/100,000
 - Incidence among adults 0.5/100,000 for ≥60y, 2.6/100,000 for 30–39y
- **Pertussis**
 - Underdiagnosed and underreported, 10,000–50,000 cases per year
 - Adults ≥65y – estimated 1–5/100,000

Recommended Adult Vaccines

- ❑ **Vaccines are an important part of optimizing health of the vaccinated person, and preventing infections in others**
- ❑ **Example: Vaccination against influenza and pertussis reduces the risk in the person vaccinated and also prevent someone from spreading these diseases**

Recommended Adult Vaccines

Figure 1. Recommended immunization schedule for adults aged 19 years or older by age group, United States, 2018

This figure should be reviewed with the accompanying footnotes. This figure and the footnotes describe indications for which vaccines, if not previously administered, should be administered unless noted otherwise.

Vaccine	19–21 years	22–26 years	27–49 years	50–64 years	≥65 years
Influenza ¹	1 dose annually				
Tdap ² or Td ²	1 dose Tdap, then Td booster every 10 yrs				
MMR ³	1 or 2 doses depending on indication (if born in 1957 or later)				
VAR ⁴	2 doses				
RZV ⁵ (preferred) or ZVL ⁵				2 doses RZV (preferred) or 1 dose ZVL	
HPV–Female ⁶	2 or 3 doses depending on age at series initiation				
HPV–Male ⁶	2 or 3 doses depending on age at series initiation				
PCV13 ⁷					1 dose
PPSV23 ⁷	1 or 2 doses depending on indication				1 dose
HepA ⁸	2 or 3 doses depending on vaccine				
HepB ⁹	3 doses				
MenACWY ¹⁰	1 or 2 doses depending on indication, then booster every 5 yrs if risk remains				
MenB ¹⁰	2 or 3 doses depending on vaccine				
Hib ¹¹	1 or 3 doses depending on indication				



Recommended for adults who meet the age requirement, lack documentation of vaccination, or lack evidence of past infection



Recommended for adults with other indications



No recommendation



National
Adult and
Influenza
Immunization
Summit

www.cdc.gov/vaccines/schedules/hcp/adult.html

Recommended Adult Vaccines

Figure 2. Recommended immunization schedule for adults aged 19 years or older by medical condition and other indications, United States, 2018

This figure should be reviewed with the accompanying footnotes. This figure and the footnotes describe indications for which vaccines, if not previously administered, should be administered unless noted otherwise.

Vaccine	Pregnancy ^{1,6}	Immuno-compromised (excluding HIV infection) ^{3-7,11}	HIV infection CD4+ count (cells/μL) ^{3-7,9-10}		Asplenia, complement deficiencies ^{7,10,11}	End-stage renal disease, on hemodialysis ^{7,9}	Heart or lung disease, alcoholism ⁷	Chronic liver disease ⁷⁻⁹	Diabetes ^{7,9}	Health care personnel ^{3,4,9}	Men who have sex with men ^{6,8,9}
			<200	≥200							
Influenza ¹	1 dose annually										
Tdap ² or Td ²	1 dose Tdap each pregnancy	1 dose Tdap, then Td booster every 10 yrs									
MMR ³	contraindicated		1 or 2 doses depending on indication								
VAR ⁴	contraindicated		2 doses								
RZV ⁵ (preferred) or ZVL ⁵	contraindicated		2 doses RZV at age ≥50 yrs (preferred) or 1 dose ZVL at age ≥60 yrs								
HPV-Female ⁶	3 doses through age 26 yrs		2 or 3 doses through age 26 yrs								
HPV-Male ⁶	3 doses through age 26 yrs		2 or 3 doses through age 21 yrs								2 or 3 doses through age 26 yrs
PCV13 ⁷	1 dose										
PPSV23 ⁷	1, 2, or 3 doses depending on indication										
HepA ⁸	2 or 3 doses depending on vaccine										
HepB ⁹	3 doses										
MenACWY ¹⁰	1 or 2 doses depending on indication, then booster every 5 yrs if risk remains										
MenB ¹⁰	2 or 3 doses depending on vaccine										
Hib ¹¹	3 doses HSCT recipients only		1 dose								



Recommended for adults who meet the age requirement, lack documentation of vaccination, or lack evidence of past infection



Recommended for adults with other indications



Contraindicated

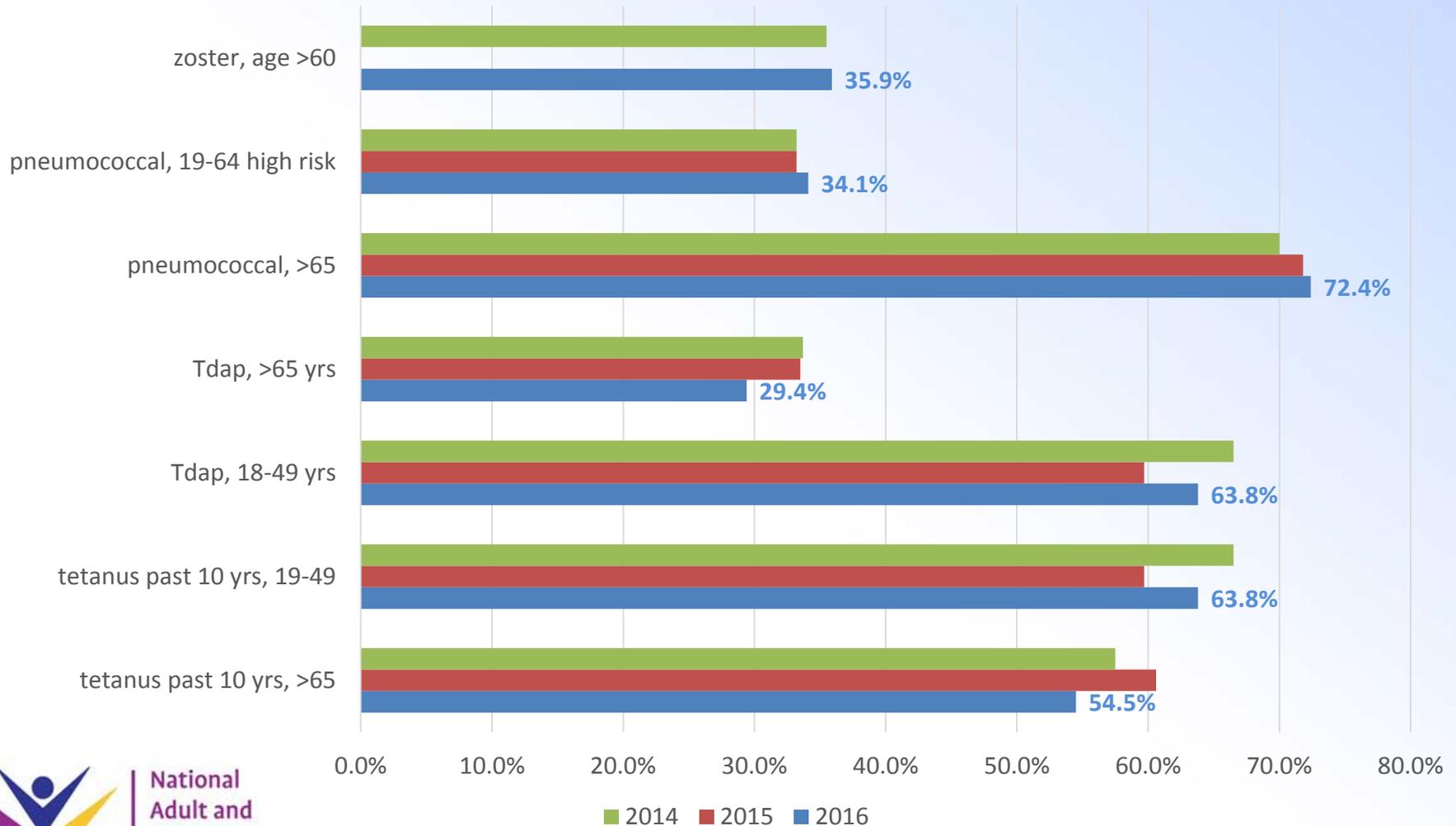


No recommendation

Impact of Vaccination

- ❑ **Vaccine effectiveness varies by vaccine type, the disease outcome, and the age or health of the person vaccinated**
 - Zoster (Shingles) vaccine effectiveness: **97% against shingles and 91% against post-herpetic neuralgia (PHN)**¹
 - PCV13 (pneumococcal conjugate vaccine): 45% efficacy against vaccine-type pneumococcal pneumonia, and 75% efficacy against vaccine-type invasive pneumococcal disease among adults aged ≥65 years²
 - Influenza vaccine: varies annually based on antigenic match and also age and health of person being vaccinated – about 60–70% in younger adults and about 30% in adults 65 years and older against medically attended influenza when good match³
 - Hepatitis B vaccine: 90% effectiveness after completing a 3-dose series, though lower in persons with diabetes, e.g. 90% with diabetes and age <40 years, 80% with diabetes and 41–59 years, 65% if 60–69 years and <40% if 70 years or older⁴

Adult Immunization Coverage Rates 2014 – 2016, California



Disparities In Adult Immunization Rates

- ❑ Lower vaccine coverage among¹
 - Hispanics and African Americans compared to non-Hispanic Caucasians
 - Uninsured
 - Lower incomes
- ❑ Improve frequency of provider vaccine assessment and recommendations may help reduce disparities
- ❑ For newly insured adults
 - Affordable Care Act (ACA) requires non-grandfathered private plans to include coverage for ACIP-recommended vaccines
 - Especially important to conduct assessment among newly insured

Key Adult Immunization Facts

❑ Challenges

- Vaccine coverage among adults is unacceptably low
- Limited patient awareness about need for vaccines among adults
- Adult vaccinations less integrated into clinical practice

❑ Opportunities

- Most patients willing to get vaccinated when recommended by medical providers
- Primary care providers believe that immunizations are an important part of the services they provide to patients
- Systematic offering and recommendations from clinicians result in higher uptake



- Hurley, et al. Annals of Internal Medicine, 2014.
- Guide to community preventive services: www.thecommunityguide.org/vaccines/index.html
- Adult non-influenza vaccine coverage: www.cdc.gov/mmwr/preview/mmwrhtml/mm6305a4.htm.

Adult Immunization Practice Standards

- ❑ **Stresses that all providers, including those that don't provide vaccine services, have a role in ensuring patients are up-to-date on vaccines**
- ❑ **Acknowledges that:**
 - Adult patients may see many different healthcare providers, some of whom do not stock some or all vaccines
 - Adults may get vaccinated in a medical home, at work, or retail setting
- ❑ **Aim is to avoid missed opportunities and keep adult patients protected from vaccine-preventable diseases**

Adult Immunization Practice Standards

□ Calls to action for healthcare professionals

- **Assess** immunization status of all patients in every clinical encounter.
- Strongly **Recommend** vaccines that patients need.
- **Administer** needed vaccines or **Refer** to a provider who can immunize.
- **Document** vaccines received by patients, including entering immunizations into immunization registries.



Even if you don't
vaccinate, you still
need to recommend
vaccines to your
patients

<http://www.publichealthreports.org>

Adult Immunization Practice Standards

- ❑ **Formally supported by healthcare organizations:**
 - American Academy of Pediatrics (AAP)
 - American Academy of Physician Assistants (AAPA)
 - American Academy of Family Physicians (AAFP)
 - American College of Obstetricians and Gynecologists (ACOG)
 - American College of Physicians (ACP)
 - American Pharmacists Association (APhA)
 - Association of Immunization Managers (AIM)
 - Association of State & Territorial Health Officials (ASTHO)
 - Centers for Disease Control and Prevention (CDC)
 - Immunization Action Coalition (IAC)
 - Infectious Diseases Society of America (IDSA)
 - National Association of County & City Health Officials (NACCHO)
 - National Foundation for Infectious Diseases (NFID)

Immunization Practice Standards Implementation

□ Assessment

- **Implement protocols and policies.** Ensure that patients' vaccine needs are routinely reviewed and patients get reminders about vaccines they need.
- Ask patients about their vaccinations during clinic visits
 - E.g. Include a form at check-in and communicate with patients before seeing the provider about which vaccines might be needed
- **Make sure that the systems in your clinic are setup to optimally support the standards implementation**
 - E.g. Your clinic's EHR includes the immunization module, and immunization prompts/health maintenance forms/clinical decision guidelines are activated and updated periodically to reflect the current adult IZ schedule

Immunization Practice Standards Implementation Assessment: Coverage Reports

Report Description	Intent	Details
Vaccine-specific statistical analysis	Patients who received the vaccine(s) in a specific time range	Use this report to track activity, analyze providers, and determine month over month dose administration or trends.
Daily vaccinations	Vaccine dose reconciliation	Include patient information, vaccine dose details, administration details, status.
Target population vaccination for a certain vaccine	Identify patients who are not up-to-date on a specific vaccination or have not completed a vaccine series	Include last vaccine date (for series), last appointment date or missed appointment, patient contact information. Use this report to follow up on series completion, if applicable. <i>A patient recall report can be used to identify this patient population.</i>
Missed opportunities	Target population seen in a time range but not given the vaccine	Criteria includes: age or condition for subpopulation of patients with any type of visit, no vaccine order for vaccine in question, and patient not up to date on series, if applicable.



Examples of Assessment Tools

Patient vaccine needs- assessment form from Immunization Action Coalition at immunize.org. Consider Health, Age, Lifestyle and Occupation/Other Factors: HALO

H-A-L-O checklist of factors that indicate a possible need for adult vaccination

Vaccine	H Health Factors									A Age Factors	L Lifestyle Factors						O Occupational or other factors				
	Pregnant	Certain chronic diseases	Immunosuppressed (including HIV)	History of STD	Asplenia	Cochlear implant candidate/recipient	Organ transplant (for stem cell transplant, see ACIP's General Recommendations on Immunization)	CSF leaks	Alcoholism		Born outside the U.S.	Men who have sex with men	Not in a long-term, mutually monogamous relationship	User of injecting or non-injecting drugs	International traveler	Close contact of international adoptee	Cigarette smoker	College students	Healthcare worker	Certain lab workers	People who live or work in an area of an outbreak
HepA		✓								Anyone of any age who wants to be protected		✓		✓	✓	✓			✓	✓	
HepB		✓	✓	✓						Anyone of any age who wants to be protected	✓	✓	✓	✓	✓			✓			✓
Hib		✓			✓																
HPV (females)										Through 26 yrs											
HPV (males)			✓							Routine through age 21; for age 22-26: risk groups and others who want to be protected	✓										
IPV														✓						✓	
Influenza	Annual vaccination is recommended for all adults.....▶																				
Meningococcal ACWY		✓	✓		✓										✓			✓		✓	✓
Meningococcal B		✓			✓					Any adult age 22-26 yrs who wants to be protected										✓	✓
MMR			?							Routine 1 dose if born after 1956; 2nd dose for some				✓			✓	✓			✓
PCV13		✓	✓		✓	✓	✓	✓		65 yrs and older (if not previously vaccinated)											
PPSV23		✓	✓		✓	✓	✓	✓		65 yrs and older						✓					
Tdap	A single dose is recommended for all adults; pregnant women should receive Tdap during each pregnancy.....▶																				
Varicella	Completion of a 2-dose series is recommended for non-pregnant adults through age 59 years who do not have evidence of immunity to varicella.....▶																				
Zoster										50 yrs and older											

? = Vaccination may be indicated depending on degree of immunosuppression

Examples of Assessment Tools

We believe that getting vaccinated is a critical step in protecting your health. Vaccines can help prevent common diseases that can be serious and costly for you or your loved ones.

Each year, thousands of adults in America suffer serious health problems (and some even die) from diseases they could be vaccinated against like whooping cough, hepatitis A and B, flu and pneumococcal diseases, and shingles. Older adults and those with chronic health conditions are at increased risk for complication from certain diseases.

Together, let's take an active role in helping you and your loved ones stay healthy. To learn more about vaccines for adults, visit www.cdc.gov/vaccines/adults or take a quick vaccine quiz at www.cdc.gov/vaccines/adultquiz.

Please take a moment to fill out the questionnaire below to help us determine which vaccines may be recommended for you based on your specific health status, age, and lifestyle. Keep in mind that this list may not include every vaccine you need.

Check all that apply to you	Let's discuss these recommended vaccines
<input type="checkbox"/> I am 19 years or older	<ul style="list-style-type: none"> Seasonal Flu (Influenza) vaccine every year Tetanus (Td) vaccine every 10 years One time dose of whooping cough (Tdap) vaccine for all adults who have never received Tdap vaccine
PREGNANT WOMEN SHOULD GET A TDAP VACCINE DURING EACH PREGNANCY	
<input type="checkbox"/> I am 60 years or older	<ul style="list-style-type: none"> Shingles (Zoster) vaccine*
<input type="checkbox"/> I am 65 years or older	<ul style="list-style-type: none"> Both types of pneumococcal vaccines (one dose of conjugate first, then one dose of polysaccharide 6-12 months later)
<input type="checkbox"/> I didn't receive the Human papillomavirus (HPV) vaccine series as a child	<ul style="list-style-type: none"> HPV vaccine series (3 dose series) <ul style="list-style-type: none"> Female age 26 or younger Male age 21 or younger Male age 22-26 who has sex with men, who has a weakened immune system, or who has HIV
<input type="checkbox"/> I was born in the US in 1957 or after and don't have immunity against measles, mumps, and rubella	<ul style="list-style-type: none"> Measles, mumps, rubella (MMR) vaccine* (one dose)
<input type="checkbox"/> I was born in the US in 1980 or after and don't have immunity against chickenpox	<ul style="list-style-type: none"> Varicella "chickenpox" vaccine*
<input type="checkbox"/> I am a healthcare worker	<ul style="list-style-type: none"> Hepatitis B vaccine series Measles, mumps, rubella (MMR) vaccine* Varicella "chickenpox" vaccine*
<input type="checkbox"/> I have heart disease, asthma or chronic lung disease	<ul style="list-style-type: none"> Pneumococcal polysaccharide vaccine

Check all that apply to you	Let's discuss these recommended vaccines
<input type="checkbox"/> I have type 1 or type 2 diabetes	<ul style="list-style-type: none"> Hepatitis B vaccine series Pneumococcal polysaccharide vaccine
<input type="checkbox"/> I have a weakened immune system	<ul style="list-style-type: none"> Both types of pneumococcal vaccines (one dose of conjugate first, then one dose of polysaccharide ≥8 weeks later) HPV vaccine series (if 26 years of age or younger and not previously vaccinated) Hib vaccine (post-hematopoietic stem cell transplant only)
<input type="checkbox"/> I have HIV	<ul style="list-style-type: none"> Hepatitis B vaccine series Both types of pneumococcal vaccines (one dose of conjugate first, then one dose of polysaccharide ≥8 weeks later) HPV vaccine series (if 26 years of age or younger and not previously vaccinated)
<input type="checkbox"/> I have chronic liver disease	<ul style="list-style-type: none"> Hepatitis A vaccine series Hepatitis B vaccine series Pneumococcal polysaccharide vaccine
<input type="checkbox"/> I do not have a spleen or my spleen does not work well	<ul style="list-style-type: none"> Hib vaccine Meningococcal vaccine Both types of pneumococcal vaccines (one dose of conjugate first, then one dose of polysaccharide ≥8 weeks later)
<input type="checkbox"/> I am a man who has sex with men	<ul style="list-style-type: none"> Hepatitis A vaccine series Hepatitis B vaccine series HPV vaccine series (if 26 years of age or younger and not previously vaccinated)
<input type="checkbox"/> I am a laboratory worker and may be routinely exposed to isolates of Neisseria meningitidis, or specimens potentially containing hepatitis A or hepatitis B virus	<ul style="list-style-type: none"> Hepatitis A vaccine series Hepatitis B vaccine series Meningococcal vaccine
<input type="checkbox"/> I am a college freshman living in a residence hall	<ul style="list-style-type: none"> Meningococcal vaccine Measles, mumps, rubella (MMR) vaccine*
<input type="checkbox"/> I am planning to travel out of the U.S.	<ul style="list-style-type: none"> Talk to your healthcare professional to learn which vaccines you may need based on locations of travel.

*This is a live vaccine and should not be given to people who have a very weakened immune system, including those with a CD4 count less than 200, or to pregnant women.



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Adult patient vaccine needs assessment form (downloaded June 25, 2018)

: <https://www.cdc.gov/vaccines/hcp/adults/downloads/patient-intake-form.pdf>

Immunization Practice Standards Implementation

□ Strongly recommend vaccines

- If you provide vaccines, be confident in your recommendation
- Encourage your staff to use the same vaccine messages when caring for patients

Use the SHARE framework when talking to your patients about vaccines they are due for. Use the SHARE framework when providing important information to help patients make informed decisions about vaccinations:

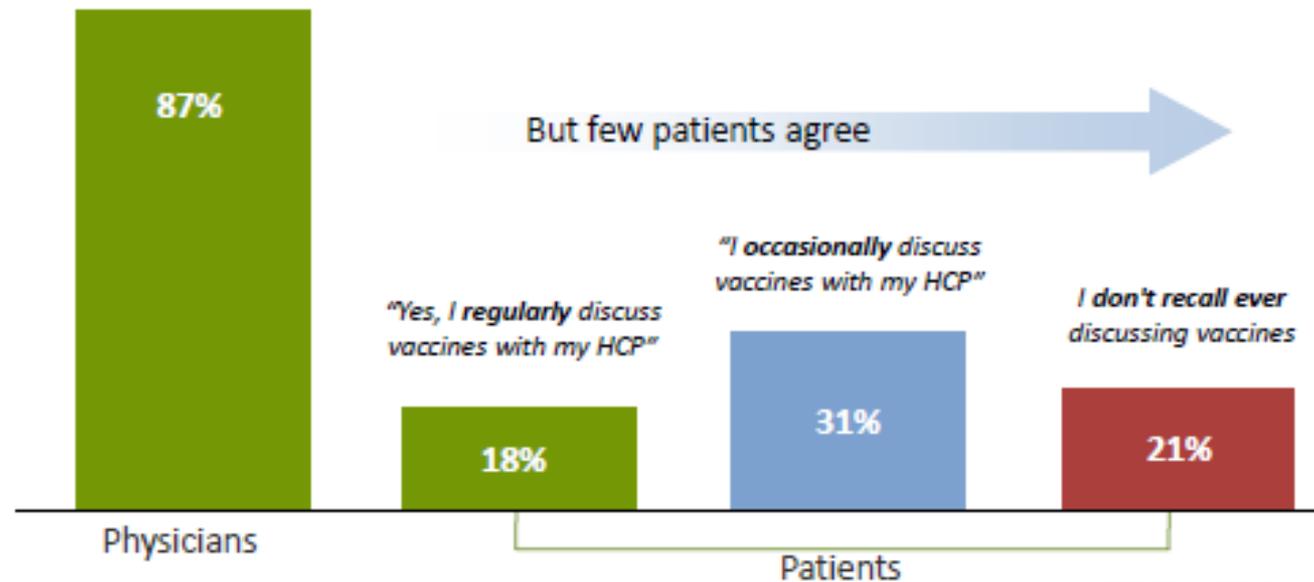
- **S**hare tailored reasons why vaccination is right for the patient.
- **H**ighlight positive experiences with vaccination.
- **A**ddress patient questions and concerns.
- **R**emind patients that vaccines protect them and their loved ones against a number of common and serious diseases.
- **E**xplain the potential costs of getting sick.



www.cdc.gov/vaccines/AdultStandards

When It Comes to Vaccines: Doctors and Patients Aren't Hearing One Another

Most physicians say *"I talk to all of my patients about vaccines"*



Results are based on surveys by the National Foundation for Infectious Diseases.



November 2010



National
Adult and
Influenza
Immunization
Summit

Immunization Practice Standards Implementation

□ Administer needed vaccines or refer

- Develop standing orders or protocols for vaccine administration
- Ensure practice is up-to-date with vaccine storage and handling
- Develop relationships with pharmacies, health departments, and other vaccination providers to refer your patients for vaccines you don't stock

Immunization Practice Standards Implementation

□ Document vaccines received by patients

- Document receipt of vaccine in electronic medical records
- Provide patients with vaccine documentation for their personal medical records, e.g. shot card
- Follow-up with patient or referring provider to document the vaccine given
- Enter immunization doses to state immunization registries

Improving Use of Immunization Information Systems – CA Immunization Registry CAIR

- ❑ **Increase use important for many reasons, including**
 - Ensuring patients get the right vaccines at the right time
 - Tracking vaccination rates
 - Potential for use in quality measures and coverage tracking
 - In pediatrics, use of IIS known to improve vaccination
 - Improves readiness to respond to emergencies like 2009 H1N1
- ❑ **Challenge: limited use by adult providers (e.g. 8% internists)¹**
- ❑ **CAIR online resources <http://cairweb.org/>**



Meta-Analysis of Interventions to Increase Use of Adult Immunization

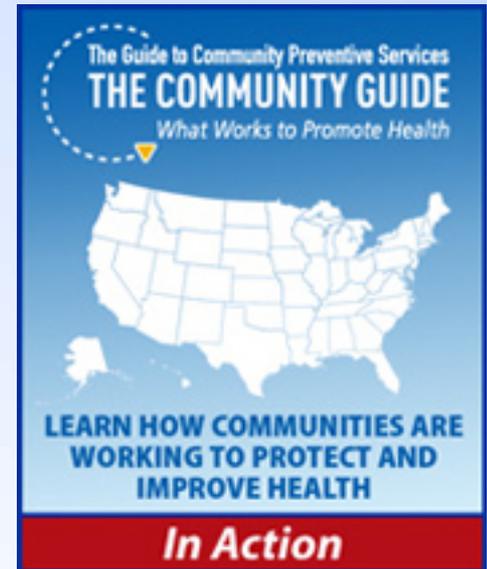
Intervention	Odds Ratio*
Organizational change (e.g., standing orders, separate clinics devoted to prevention)	16.0
Provider reminder	3.8
Patient financial incentive	3.4
Provider education	3.2
Patient reminder	2.5
Patient education	1.3

*Compared to usual care or control group, adjusted for all remaining interventions

Components of Successful Vaccination Programs

❑ Strategies shown to improve vaccine uptake in healthcare settings:

- Use of standing orders
- Use of reminder-recall systems
- Efforts to remove administrative barriers
- Provider and practice assessment of vaccination and feedback
- Use of immunization registries
- Immunization champions
- Patient education (e.g. email reminders from providers plus provider recommendations)



Impact of Vaccine Preventable Diseases in People

Shingles: "I would rather have ten babies than the pain I've endured for the past ten years," says 87-year-old Etta Watson Zukerman of Bethesda, Md., who has lost partial use of her right arm and hand due to nerve damage from postherpetic neuralgia (PHN).



Courtesy MN Oxman San Diego VAMC

CDC/ Patricia Walker, M.D., Regions Hospital, MN

Pertussis: Callie stopped breathing again. Family members watched helplessly from behind a glass wall as doctors tried for 45 minutes to revive her. Tragically, Callie could not be saved. She was only 5 weeks old. "We never dreamed we'd lose her," Katie said. "Callie was a more loved, more wanted baby than you'd ever find."



Testimonials from Immunization Action Coalition and CDC websites

Conclusions

- ❑ **Substantial burden of disease in adults for which vaccines available**
- ❑ **Vaccination rates low among adults in U.S.**
- ❑ **Adult Immunization Practice Standards updated and supported by wide range of provider organizations**
- ❑ **Implementation of standards is key to increasing awareness of adult immunization, improving vaccine coverage, and reducing racial and ethnic disparities in vaccine coverage**
- ❑ **Many tools and resources available to:**
 - Help providers implement practice standards
 - Educate patients on the importance of vaccination

VFA Program Updates

1. Orders

Only two open ordering periods left for the rest of 2018:

- Third quarter open ordering period July 9-22
- Fourth quarter open ordering period – second half of September (exact dates TBD)

2. Evaluation Reports

VFA Program Updates

1. New vaccines

- **Shingrix** will be available for this ordering period.
 - Orders for Zostavax may be limited or reduced based on quarterly administration data, in anticipation of the new shingles vaccine.
 - A communication with information regarding Shingrix and practical advice on how you can best prepare your practice prior to placing your first Shingrix order was sent to all VFA participants on June 25, 2018.
 - A Clinical Letter and additional ordering information will be send prior to July 9.
- **Hepelisav** is anticipated to become available for VFA orders in quarter four

Thank you!

❑ my317vaccines@cdph.ca.gov

Resources For Implementing the Immunization Standards

- ❑ VFA Program Resources Webpage <http://eziz.org/vfa-317/vfa-resources/>
- ❑ Patient **check-in vaccine questionnaire** to be used at clinics: <http://www.cdc.gov/vaccines/hcp/patient-ed/adults/downloads/patient-intake-form.pdf>.
- ❑ **H-A-L-O** – vaccine needs questionnaire based on your patient’s Health condition, Age, Lifestyle, and Occupation at <http://www.immunize.org/catg.d/p3070.pdf>.
- ❑ Patient **on-line quiz** – direct patients to complete the quiz before coming to their appointment – gives them and you a starting point for talking about which vaccines they might need. <http://www2.cdc.gov/nip/adultimmsched/>.
- ❑ CDC adult **vaccine schedule app** at <http://www.cdc.gov/vaccines/schedules/hcp/schedule-app.html>.
- ❑ California Immunization Coalition - Stories of Vaccine-Preventable from people who have been touched by vaccine-preventable diseases: <http://www.shotbyshot.org/>

Adolescent and Adult Vaccine Quiz

What Vaccines do **YOU** need?

Did you know that certain vaccines are recommended for adults and adolescents? Get information for people age 11 years and older.

Instructions:

1. **Complete** the quiz.
2. **Get a list of vaccines** you may need (*this list may include vaccines you may not need*).
3. **Discuss the vaccines with your doctor or healthcare professional.**

Part One, About You

1. Are you
 Female Male
2. For women only (Some vaccines can affect pregnancy.)
 I could become pregnant I am pregnant now



Resources For Implementing the Immunization Standards

- ❑ **CDC handouts for providers about how to implement the Standards**
<https://www.cdc.gov/vaccines/hcp/adults/for-practice/standards/index.html> and information about vaccine recommendations at www.cdc.gov/vaccines/acip
- ❑ **National Adult and Influenza Immunization Summit and Immunization Action Coalition (IAC)**
www.izsummitpartners.org has information for providers on each vaccine and vaccine administration, storage and handling at www.immunize.org.
<https://www.izsummitpartners.org/wp-content/uploads/2014/05/AdultVaccineMessaging2.pdf> has information on effective way to provide messaging to adults regarding immunizations
- ❑ **National Foundation for Infectious Diseases**
www.adultvaccination.org has tools for providers and information to help with conversations with your patients about vaccines, including the top 10 reasons to get vaccinated at <http://www.adultvaccination.org/10-reasons-to-be-vaccinated>.

Resources From Professional Provider Organizations on Adult Immunizations

- ❑ American Academy of Family Physicians - <http://www.aafp.org/patient-care/immunizations/schedules.html> for information on vaccinations plus CME opportunities
- ❑ American Association of Nurse Practitioners - <http://www.aanp.org/education/education-toolkits/immunizations>. Includes tool kits and other information.
- ❑ American Academy of Physician Assistants – <http://www.aapa.org>. has information on professional recommendations for immunization practice.
- ❑ American College of Obstetricians and Gynecologists - www.immunizationforwomen.org information about vaccines for pregnant and non-pregnant women, vaccine coding and other business practices
- ❑ American College of Physicians - <http://immunization.acponline.org/> has information about adult vaccinations, quality improvement, resources for practical application, and information on special populations.
- ❑ American Pharmacists Association - <http://www.pharmacist.com/immunization-resources>. Multiple resources, training and tools for pharmacists on immunizations.
- ❑ Infectious Diseases Society of America - <http://www.idsociety.org/Immunization/>. Provides multiple resources and also recommendations specifically for immune compromised persons.

Series for Healthcare Providers on Implementing Standards

5 Vaccine Documentation

4 Vaccine Referral

3 Vaccine Administration

2 Vaccine Recommendation
A Series on Standards for Adult Immunization Practice

1 Vaccine Needs Assessment
A Series on Standards for Adult Immunization Practice

U.S. vaccination rates for adults are extremely low.

Assessment is the critical first step in ensuring that your adult patients get the vaccines they need for protection against serious vaccine-preventable diseases.

As a standard of care—whether you provide vaccines or not—you should assess your patients' immunization status at every clinical encounter and strongly recommend vaccines that they need.

Assessing your patients' vaccination status at every clinical encounter will decrease missed opportunities to vaccinate.^{1, 2, 3}

There are simple ways to implement routine vaccine assessment into your office patient flow.

Routinely assessing patient vaccination status will make a difference.

Adults think immunization is important, but most are not aware that they need vaccines throughout their lives. Research indicates that your recommendation is the strongest predictor of whether patients get vaccinated.⁴ Implement policies to ensure your patients' vaccination needs are routinely reviewed.

For information on insurance coverage of vaccines for adults, visit www.cdc.gov/vaccines/hcp/adults.

Information Series for Healthcare Professionals
www.cdc.gov/vaccines/adultstandards

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

1

2

3

4

5

Keep a record of vaccine status.

You should have HPV vaccine records for all patients.

To ensure you are up-to-date on your own immunization status, you should have your own records.

Each year, all patients should be screened for hepatitis B, hepatitis C, and HIV.

Documentation of vaccine status is essential for patient care and public health.

Consult with your local health department for more information.

Reduce the burden of disease by ensuring that all patients are up-to-date on their immunizations.

Making a record of vaccine status is a simple and effective way to ensure that all patients are up-to-date on their immunizations.

For more information, visit www.cdc.gov.

Even if you still are pregnant, you should get the Tdap vaccine.

Routine vaccination for recommended ages.

There are many reasons why you should get vaccinated.

Research shows that people who get vaccinated are less likely to get sick and are more likely to get better if they do get sick.

Build trust with your patients by helping them understand why they should get vaccinated.

Help your patients understand why they should get vaccinated.

Ensure that all patients are up-to-date on their immunizations.

Minimize the burden of disease by ensuring that all patients are up-to-date on their immunizations.

All vaccine-preventable diseases are preventable.

For more information, visit www.cdc.gov.

For tips on answering common patient questions and links to patient education materials, see back.

SHARE

S SHARE the tailored reasons why the recommended vaccine is right for the patient given his or her age, health status, lifestyle, occupation, or other risk factors.

H HIGHLIGHT positive experiences with vaccines (personal or in your practice), as appropriate, to reinforce the benefits and strengthen confidence in vaccination.

A ADDRESS patient questions and any concerns about the vaccine, including side effects, safety, and vaccine effectiveness in plain and understandable language.

R REMIND patients that vaccines protect them and their loved ones from many common and serious diseases.

E EXPLAIN the potential costs of getting the disease, including serious health effects, time lost (such as missing work or family obligations), and financial costs.

FOR MORE INFORMATION, VISIT www.cdc.gov/vaccines/adultstandards

FOR MORE INFORMATION, VISIT www.cdc.gov

1 Vaccine Needs Assessment
A Series on Standards for Adult Immunization Practice

Assessment is the critical first step in ensuring that your adult patients get the vaccines they need for protection against serious vaccine-preventable diseases.

U.S. vaccination rates for adults are extremely low.

Assessing your patients' vaccination status at every clinical encounter will decrease missed opportunities to vaccinate.^{1, 2, 3}

There are simple ways to implement routine vaccine assessment into your office patient flow.

Routinely assessing patient vaccination status will make a difference.

Adults think immunization is important, but most are not aware that they need vaccines throughout their lives. Research indicates that your recommendation is the strongest predictor of whether patients get vaccinated.⁴ Implement policies to ensure your patients' vaccination needs are routinely reviewed.

For information on insurance coverage of vaccines for adults, visit www.cdc.gov/vaccines/hcp/adults.

Information Series for Healthcare Professionals
www.cdc.gov/vaccines/adultstandards

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

1

2

3

4

5

Keep a record of vaccine status.

You should have HPV vaccine records for all patients.

To ensure you are up-to-date on your own immunization status, you should have your own records.

Each year, all patients should be screened for hepatitis B, hepatitis C, and HIV.

Documentation of vaccine status is essential for patient care and public health.

Consult with your local health department for more information.

Reduce the burden of disease by ensuring that all patients are up-to-date on their immunizations.

Making a record of vaccine status is a simple and effective way to ensure that all patients are up-to-date on their immunizations.

For more information, visit www.cdc.gov.

Even if you still are pregnant, you should get the Tdap vaccine.

Routine vaccination for recommended ages.

There are many reasons why you should get vaccinated.

Research shows that people who get vaccinated are less likely to get sick and are more likely to get better if they do get sick.

Build trust with your patients by helping them understand why they should get vaccinated.

Help your patients understand why they should get vaccinated.

Ensure that all patients are up-to-date on their immunizations.

Minimize the burden of disease by ensuring that all patients are up-to-date on their immunizations.

All vaccine-preventable diseases are preventable.

For more information, visit www.cdc.gov.

For tips on answering common patient questions and links to patient education materials, see back.

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<https://www.cdc.gov/vaccines/hcp/adults/for-practice/standards/index.html>

Patient Education Materials - Handouts



INFORMATION SERIES FOR ADULTS

3 Important Reasons for Adults to Get Vaccinated

You may not realize that as an adult you still need vaccines, or why they are so important to your health. There are many reasons to get vaccinated, here are just three.

1 You may be at risk for serious diseases.

Each year thousands of adults in the United States suffer serious health problems from disease that could be prevented by vaccines. Some people are hospitalized, and some even die. Even if you were fully vaccinated as a child, the protection from some vaccines you received can wear off over time, and you may also be at risk for other diseases due to your job, hobbies, travel and health conditions.

2 You can protect your health and the health of those around you by getting recommended vaccines.

Vaccines reduce your chance of getting sick.

Vaccines work with your body's natural defenses to reduce the changes of getting certain diseases and suffering from their complications.

Vaccines reduce your chance of spreading disease.

There are many things you want to pass on to your loved ones; illness is not one of them. Infants, older adults, and people with weakened immune systems (like those undergoing cancer treatment) are especially vulnerable to infectious disease.

3 You can't afford to risk getting sick.

Even healthy people can get sick enough to miss work or school, and most importantly time away from their loved ones. Being vaccinated is your best protection against many serious diseases. You take many steps to stay healthy – getting vaccinated is an important one.

Getting vaccinated as an adult is easier than you think.

- Adults can get vaccines at doctors' offices, pharmacies, workplaces, community health clinics, and health departments. To find a vaccine provider near you, go to vaccine.healthmap.org.
- Most health insurance plans cover the cost of recommended vaccines. Check with your insurance provider for details and to find an in-network provider.
- If you do not have health insurance, visit www.healthcare.gov to learn more about health coverage options.

What vaccines do you need?

All adults should get:

- Annual flu vaccine to protect against seasonal flu
- Td/Tdap to protect against tetanus, diphtheria, and pertussis

Some additional vaccines you may need (depending on your age, health conditions, and other factors) include:

- Hepatitis A
- Hepatitis B
- Human Papillomavirus (HPV)
- Meningococcal
- Pneumococcal
- Shingles

Traveling overseas? There may be additional vaccines you need depending on the location.

Find out at: www.cdc.gov/travel

**DON'T WAIT.
VACCINATE!**



Vaccines are safe.

- **Vaccines are tested and monitored.** Vaccines are tested before being licensed by the Food and Drug Administration (FDA). Both the CDC and FDA continue to monitor vaccines after they are licensed.
- **Vaccine side effects are usually mild and temporary.** The most common side effects include soreness, soreness, redness, or swelling at the injection site. Severe side effects are very rare.
- **Vaccines are one of the safest ways to protect your health.** Even people taking prescription medications can be vaccinated. However, if you are pregnant or have a weakened immune system talk with your doctor before being vaccinated, as some vaccines may not be recommended for you.

Some diseases that can be prevented by vaccines

Diseases and the vaccines that help prevent them	How it can affect you
Influenza "Flu" Annual flu vaccine	Sudden high fever, chills, dry cough, headache, runny nose, sore throat, muscle and joint pain, and extreme fatigue that can last from days to weeks. Complications: Pneumonia (infection in the lungs)
Hepatitis A Hep A vaccine	Fever, tiredness, stomach pain, loss of appetite, vomiting, jaundice (yellowing of skin and eyes), and dark urine; however, there may be no symptoms. Complications: Liver failure; arthralgia (joint pain); and kidney, pancreatic, and blood disorders
Hepatitis B Hep B vaccine	Flu-like illness with loss of appetite, fever, tiredness, weakness, nausea, vomiting, jaundice, and joint pain; however, there may be no symptoms. Complications: Chronic liver infection, liver failure, and liver cancer
Human Papillomavirus (HPV) HPV vaccine	Frequently no symptoms for years until cancer appears. Complications: Cervical cancer in women, anal cancer and genital warts in both women and men
Meningococcal Disease Meningococcal conjugate vaccine	Nausea, vomiting, sensitivity to light, confusion, and tiredness. Complications: Meningitis (infection of the covering around the brain and spinal cord), intellectual disability, epiglottitis (life-threatening infection that can block the windpipe and lead to serious breathing problems), pneumonia, loss of arms or legs, loss of hearing, seizures, strokes, or even death
Pneumococcal Disease Pneumococcal vaccine	Pneumonia, ear infections, sinus infections, meningitis, and sepsis (blood infection). Complications: Brain damage, loss of hearing, loss of arms or legs, or even death
Shingles Zoster vaccine	Painful rash on one side of the face or body, which blisters and then typically scabs over in 7-10 days and clears up within 2-4 weeks, headache, fever, chills, and upset stomach. Complications: Prolonged pain, encephalitis (brain swelling), pneumonia, loss of eye sight and hearing, or even death
Tetanus Td/Tdap vaccine	Serious, painful spasms and stiffness of all muscles, difficulty opening mouth, swallowing, or breathing, muscle spasms, and fever. Complications: Broken bones, breathing difficulty, or even death
Whooping Cough (Pertussis) Tdap vaccine	Prolonged cold symptoms (cough and runny nose), leading to violent coughing or choking, making it hard to breathe, drink, or eat. Complications: Pneumonia, or death

For a full list of all diseases that can be prevented by vaccines visit: www.cdc.gov/vaccines/vpd-vac

Learn more about vaccines for adults at www.cdc.gov/vaccines/adults or call 1-800-CDC-INFO (800-232-4636).



National
Adult and
Influenza
Immunization
Summit

Medscape Module

www.medscape.com

How to Give a Strong Recommendation to Adult Patients Who Require Vaccination

Mary C. Anderson, MD; Marie T. Brown, MD; Marie-Michele Léger, MPH, PA-C; Aparna Ramakrishnan, MA, MSW | April 16, 2015

Vaccination Care for Adults

Your recommendation is a critical factor in whether your patients receive the vaccines that they need. Research indicates that most adults believe that vaccines are important and are likely to receive them if recommended by their healthcare professionals (HCPs).

As a [standard of practice](#),^[1] all HCPs have the responsibility to routinely assess patient immunization status and to strongly recommend vaccines that patients need. Providers who don't stock vaccines should discuss needed vaccines with their patients, write a vaccine-specific recommendation, and then refer them to a clinic or pharmacy that provides vaccination services.

The first step in determining whether you need to discuss vaccines with your patient is assessing his or her vaccination status. Which of the following strategies has demonstrated efficacy for improving vaccine assessment?

- Standing orders
- Patient intake questionnaires
- Electronic health record prompts or reminders
- Immunization registries or information systems
- All of the above

Save and Proceed

Vaccination Status Assessment

All of the strategies discussed here can help improve vaccine assessment, though a combination may be needed to ensure that patients' vaccine needs are routinely assessed and opportunities to vaccinate are not missed.

Standing orders or protocols for nursing staff to assess and administer needed vaccines save time and reduce missed opportunities for vaccination. Examples of standing orders for vaccines can be found at the Immunization Action Coalition (IAC) [website](#).



Case Presentations and Videos

1. Older Adult
 - Zoster
 - PCV13
2. Adult with Diabetes
 - Hep B
 - Influenza
3. Pregnant Woman
 - Tdap
 - Influenza