

Implementing the new NVAC Standards for Adult Immunization Practice

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Promote, Prevent and Protect:
Immunizations throughout a
Lifetime, October 7, 2015

Disclosures

- I have received honoraria from Pfizer, Novartis, Temptime Corp., TruMedSystems, and Sanofi Pasteur for service as a scientific consultant.
 - My honoraria is donated to the IAC
- I do NOT intend to discuss an unapproved or investigative use of a commercial product/device in my presentation.

Disclaimer

The opinions expressed in this presentation are solely those of the presenter and do not necessarily represent the official positions of the Immunization Action Coalition, or the National Adult and Influenza Immunization Summit

Outline

- The path towards the new Standards for Adult Immunization Practice
- What are the "Standards?"
- Implementing the "Standards" in your practice
 - ASSESS
 - RECOMMEND
 - VACCINATE OR REFER
 - DOCUMENT

Burden of Vaccine-preventable Disease Among U.S. Adults

•Influenza

- 3,000 to 49,000 total influenza-related deaths per year¹
- 80%-90% of deaths among adults 65 years and older²

•Invasive pneumococcal disease (IPD)³

- 33,900 total cases/ 3,700 total deaths in 2013
- 91% of IPD and nearly all IPD deaths among adults

•Pertussis in 2014⁴

- ~24,000 cases
- >5,000 among adults 20 years of age and older

•Hepatitis B⁵

- 3,050 acute cases reported in 2013
- ~19,800 estimated

•Zoster⁶

- ~1 million cases of zoster annually U.S.

1. CDC. Estimates of Deaths Associated with Seasonal Influenza – United States, 1976-2007. MMWR. 010;59(33): 1057-1062.
2. Kostova, D., et al. Influenza Illness and Hospitalizations Averted by Influenza Vaccination in the United States, 2005–2011. <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0066312>
3. CDC. Active Bacterial Core Surveillance. www.cdc.gov/abcs/reports-findings/survreports/spneu13.pdf
4. CDC. 2014 Provisional Pertussis Surveillance Report. <http://www.cdc.gov/pertussis/downloads/pertuss-surv-report-2014.pdf>
5. CDC. Viral Hepatitis Surveillance United States. www.cdc.gov/hepatitis/statistics/2013surveillance/commentary.htm#hepatitisB
6. CDC. Prevention of Herpes Zoster. MMWR 2008. 57(RR-5): 1-30.

Cost Burden of 4 Adult Vaccine-Preventable Diseases to the U.S. (65 years and older)*

2013 Census							
Disease	Est. Cases	Est. Medical Cost (per case)	Est. Indirect Cost (per case)	Est. Total Cost (per case)	Est. Total Medical Cost (millions)	Est. Total Indirect Cost (millions)	Est. Total Cost (millions)
Influenza	4,019,759	\$1867	\$201	\$2068	\$7503.3	\$809.5	\$8312.8
Pneumococcal	440,187				\$3572.2	\$214.9	\$3787.1
Bacteremia	19,960	\$25,181	\$879	\$26,060	\$502.6	\$17.6	\$520.2
Meningitis	1278	\$32,803	\$879	\$33,682	\$41.9	\$1.1	\$43.0
NPP (inpatient)	187,982	\$15,221	\$641	\$15,862	\$2861.3	\$120.4	\$2981.7
NPP (outpatient)	230,968	\$721	\$328	\$1049	\$166.4	\$75.8	\$242.2
Zoster	555,989	\$2354	\$3074	\$5427	\$1308.5	\$1708.9	\$3017.4
Pertussis	207,241	\$432	\$593	\$1026	\$89.6	\$122.9	\$212.5
Total	5,223,176				\$12,473.7	\$2856.2	\$15,329.9

NPP is non-bacteremic pneumococcal pneumonia caused by *S. pneumoniae*. 'NPP inpatient' refers to cases of NPP that require hospitalization where as 'NPP outpatient' refers to cases of NPP that do not require hospitalization

~\$9 billion more in costs if you include the 50-64 year old population!

*McLaughlin, JM., Tan, L., et al. 2015. *J Prim Prev.* 2015 Aug;36(4):259-73.

Recommended Adult Vaccines

- Important for optimizing health, protecting persons vaccinated and others
 - Example: Vaccination against influenza and pertussis reduces the risk for the person vaccinated and also prevents the person from spreading these diseases

Impact of Vaccination

- Vaccine effectiveness (VE) varies by vaccine type, the disease outcome, and the age or health of the person vaccinated
 - Zoster (shingles) VE: 51% against shingles, 66% against post-herpetic neuralgia (PHN), and almost 80% against most prolonged and extreme cases of PHN¹
 - PCV13 (pneumococcal conjugate vaccine) VE: 45% against vaccine-type pneumococcal pneumonia, and 75% against vaccine-type invasive pneumococcal disease among adults age ≥ 65 years²

1 Oxman MN, et al. NEJM 2005;352:2271-84.

2 Bonten MJ, et al. NEJM 2015;372:1114-25.

Impact of Vaccination (cont.)

- 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 with a good match¹
- 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 older²)

immunization
action coalition



immunize.org

1. CDC. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2013–2014. MMWR 2013; 62(RR07);1-43.
2. CDC. Use of hepatitis B vaccine for adults with diabetes mellitus. MMWR 2011;60:1709-1711.

Vaccination of Pregnant Women: Two-For-One

•Influenza vaccination of pregnant women

- Reduce risk of influenza illness in pregnant women
- Reduce risk of influenza illness, fevers and influenza hospitalizations in infants during first 6 months of life
- Vaccinate with inactivated flu vaccine (not live vaccine) during pregnancy¹

•Tdap vaccination of pregnant women

- Vaccinate in 3rd trimester to transfer antibody to infant prior to birth
- Prevents pertussis in mom and protects infant
 - Tdap vaccination during pregnancy estimated to be 93% effective in preventing pertussis in infants <2 months old²

•Pregnant women should NOT routinely receive any live vaccines (e.g., live influenza vaccine, MMR, varicella or shingles vaccines)

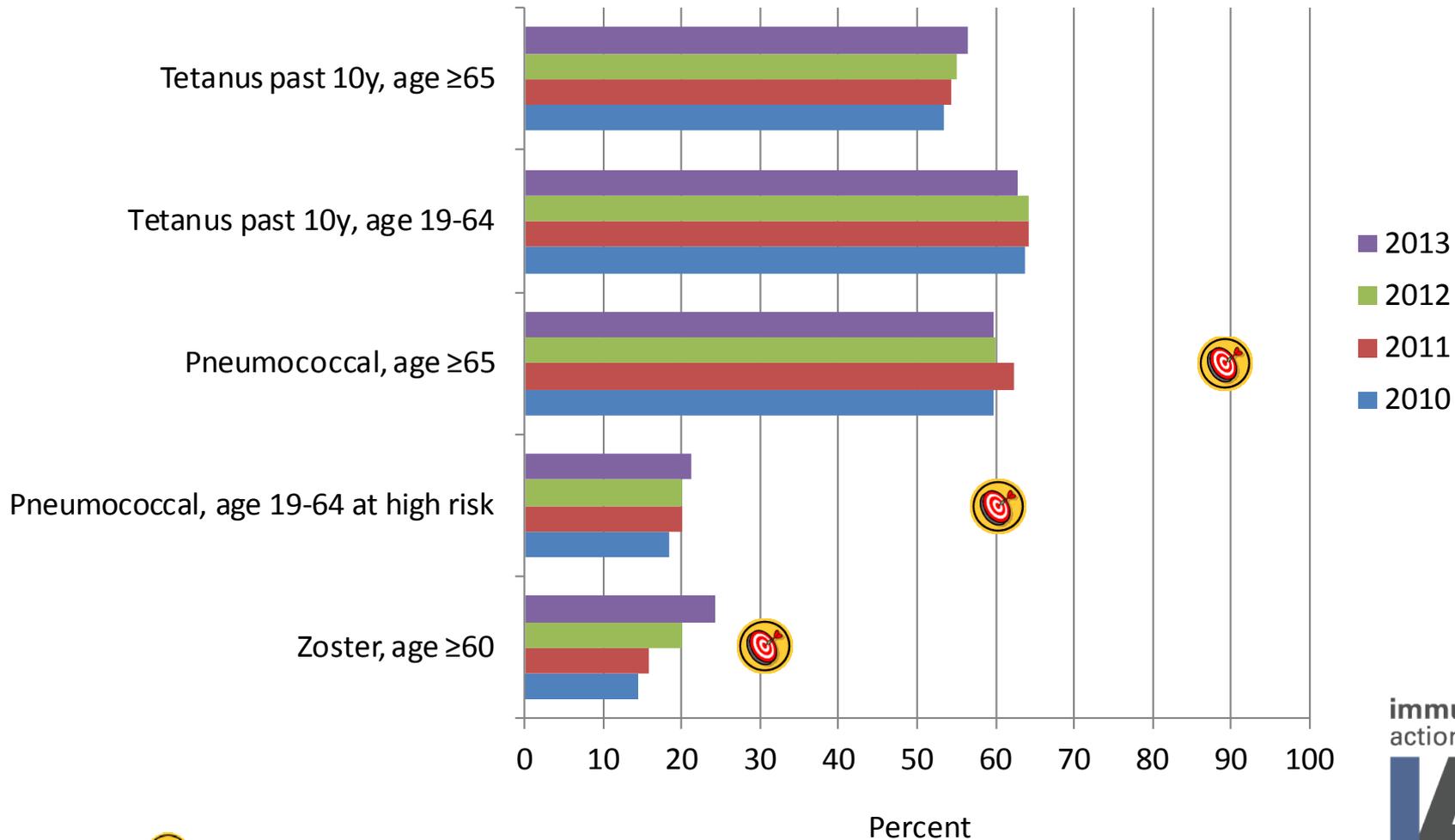
1. CDC. MMWR 2014; 63(32); 691-697.

2. Dabrera G, et al. *Clin Infect Dis.* 2015; 60 (3): 333-337.

Yet, We are Failing to Vaccinate our Adult Population!

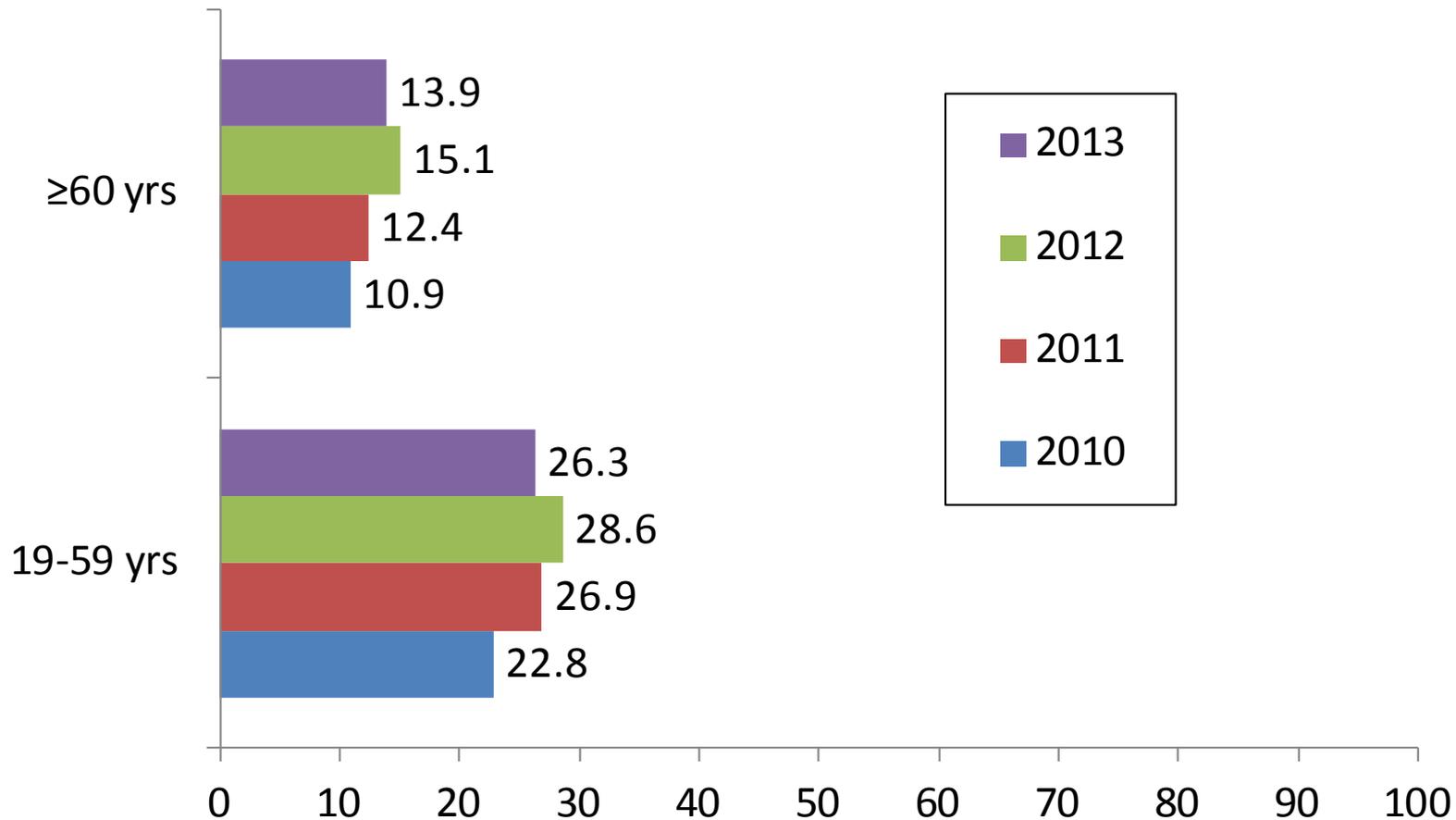


Adult Immunization Coverage Rates, National Health Interview Surveys, 2010-2013

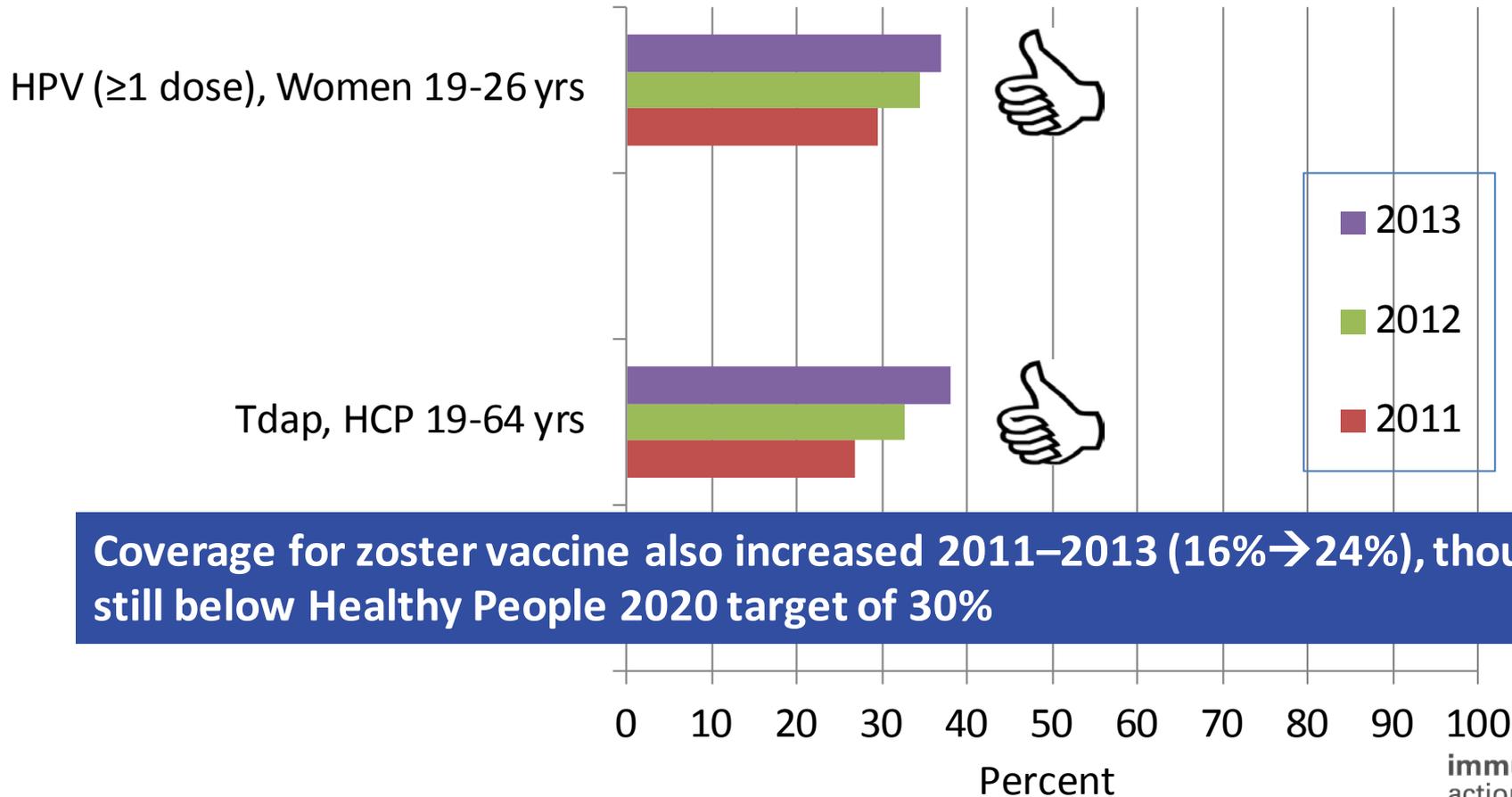


: Healthy People 2020 target

Adults with Diabetes Who Received ≥ 3 doses Hepatitis B Vaccine by Age, National Health Interview Surveys, 2010-2013

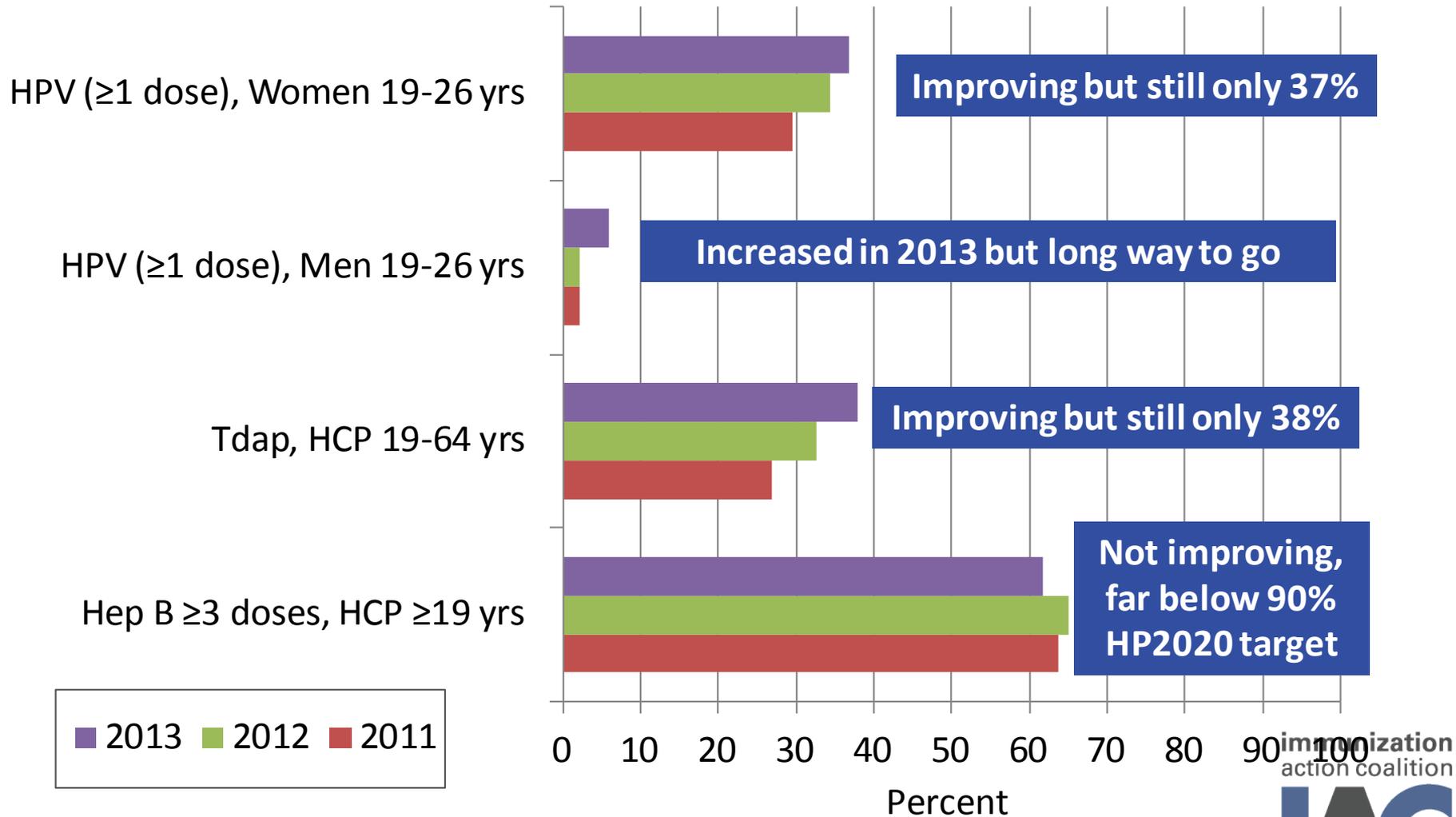


Improvements in Some Adult Vaccination Coverage Rates



Coverage for zoster vaccine also increased 2011–2013 (16%→24%), though still below Healthy People 2020 target of 30%

But Most Adult Immunization Rates Still Low



Source: National Health Interview Surveys

The new National Vaccine
Advisory Committee Standards
for Adult Immunization
Practice (the "Standards")

Current Adult Immunization Environment

- Adults access medical care at multiple entry points
- There are many types of immunization providers and sites. (including, but not limited to, physicians - generalists and specialists, pharmacists, nurses, physician assistants, nurse practitioners, retail stores and clinics, community immunizers, worksites, public health departments, hospitals, travel clinics)
- Many more adults have become aware of annual influenza vaccination, but fewer are aware of other recommended adult vaccines

Current Adult Immunization Environment

- Many missed opportunities occur to assess patient vaccination needs
 - Patients open to vaccination when recommended by their provider.
- Differences in vaccines covered by Medicare B versus D creates challenges for some providers, but not others
- Vaccine providers are paid different rates by different payers. Not all providers vaccinate. Pay can differ based on in-network status
- There are opportunities in the Affordable Care Act to reduce the number of uninsured adults

Current Adult Immunization Environment

- There is no federal "Vaccines for Adults" program
- Manufacturers offer Patient Assistance Programs
- Challenges remain with adult immunization documentation among providers
 - Immunization registries and EHRs vary across states and provider networks, respectively
- Meaningful Use many provide opportunities to improve documentation and communication about vaccination among different providers
- All this is happening in the context of, and in support of, the NVAC recommendations to improve adult immunization

Updating the NVAC Adult Immunization Standards of Practice

- Summit Access and Collaboration WG established a writing subcommittee
- Subcommittee reviewed existing standards of adult immunization practices (eg. IDSA-2007, NVAC-2003) and developed and refined multiple drafts
- NVAC agreed to review draft standards in June 2013, and **voted to approve the updated Standards** its September 2013 NVAC meeting
- Available online at:
<http://www.izsummitpartners.org/adult-immunization-standards/>

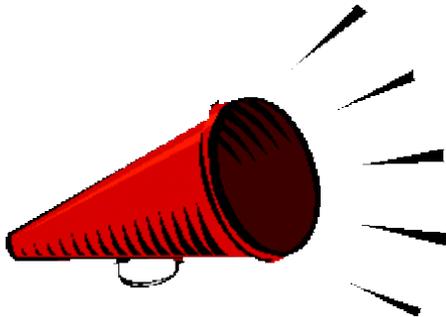
Fundamental Paradigm Shift in Adult IZ

- Adult immunization standards should be applied to all providers of care to adults, those who do and do not vaccinate
- New standards recognize the importance of the healthcare provider recommendation for patients to receive needed vaccines
- Highlights the current low vaccination rates among U.S. adults
- Reflects the changed environment within which adult vaccines are now given

Fundamental Paradigm Shift in Adult IZ

ALL providers of health care to adults are to:

1. ASSESS patient's status for all recommended vaccines at each clinical encounter;
2. Educate and counsel the patient on the recommended vaccines and strongly RECOMMEND needed vaccines; and,
3. VACCINATE at the same visit, OR for providers that do not stock the recommended vaccine, REFER the patient to a vaccinating provider.
4. DOCUMENT the receipt of vaccine by the patient



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

ASSESS

- Missed opportunities abound in adult immunizations resulting in the low vaccination rates that we see
- Need to get over the barrier of vaccines not being addressed in clinical encounters for many excuses
 - Competing priorities
 - Delaying vaccines until next visit
 - Not my clinical responsibility...

ASSESS

• Assess your adult patient based on "H-A-L-O:"

- H - Health condition
 - A - Age
 - L - Lifestyle
 - O - Occupational status
- In actuality, most patients are not aware of the adult vaccines that they need and with a provider recommendation, will accept vaccination

Before you vaccinate adults, consider their “H-A-L-O”!

What is H-A-L-O? As shown below, it’s an easy-to-use chart that can help you make an *initial* decision about vaccinating a patient based on four factors—the patient’s **H**ealth condition, **A**ge, **L**ifestyle, and **O**ccupation. In some situations, though, you can vaccinate a patient without considering these factors. For example, all adults need a dose of Tdap as well as annual vaccination against influenza, and any adult who wants protection against hepatitis A or hepatitis B can be vaccinated. Note that not all patients who mention one or more **H-A-L-O** factors will need to be vaccinated. Before you make a *definitive* decision about vaccinating your patient, it’s important that you refer to the more detailed information found in the Immunization Action Coalition’s “Summary

of Recommendations for Adult Immunization,” located at www.immunize.org/catg.d/p2011.pdf or the complete vaccine recommendations of the Centers for Disease Control and Prevention’s Advisory Committee on Immunization Practices (ACIP) at www.cdc.gov/vaccines/pubs/ACIP-list.htm.

How do I use H-A-L-O? Though some **H-A-L-O** factors can be easily determined (e.g., age, pregnancy), you will need to ask your patient about the presence or absence of others. Once you determine which of the factors apply, scan down each column of the chart to see at a glance which vaccinations are *possibly* indicated (they are shown with a check mark).

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

Vaccine	Health factors									Age factors	Lifestyle factors							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 ACP’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	Parent or caregiver of a young child	Healthcare worker	Certain lab workers	Adults in institutional settings (e.g., chronic care, correctional)
HepA		✓									✓		✓	✓	✓					✓		
HepB		✓	✓	✓							✓	✓	✓	✓					✓		✓	
Hib		✓	✓		✓																	
HPV (females)										Through 26 yrs												
HPV (males)			✓							Routine through 21 yrs; risk-based 22–26 yrs	✓											
IPV														✓							✓	
Influenza	Annual vaccination is recommended for all adults>																					
Meningococcal		✓			✓									✓			✓			✓		
MMR			?							Routine 1 dose if born after 1956; 2nd dose for some				✓			✓		✓			
PCV13		✓	✓		✓	✓	✓	✓														
PPSV23		✓	✓		✓	✓	✓	✓		65 yrs & 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										60 yrs & older												

? = Vaccination may be indicated depending on degree of immunosuppression.

Assess adult vaccine status at every clinical encounter!

- Stay up-to-date on latest ACIP-recommended vaccines
- Utilize immunization information systems and electronic health records to automate assessment and generate reminders/recalls
- Train other office staff to assess patient prior to physician consultation
- Consider a patient self-assessment at check in
 - Use videos in waiting room, preferably personalized

Summary of Recommendations for Adult Immunization (Age 19 years & older)

(Page 1 of 4)

Vaccine name and route	People for whom vaccination is recommended	Schedule for vaccination administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<p>Influenza Inactivated Influenza vaccine (IIV*) <i>Give IM or ID (intradermally)</i> <i>*includes recombinant influenza vaccine (RIV)</i></p> <p>Live attenuated influenza vaccine (LAIV) <i>Give intranasally</i></p>	<p>For people through age 18 years, consult "Summary of Recommendations for Child/Teen Immunization" at www.immunize.org/catg.d/p2010.pdf.</p> <ul style="list-style-type: none"> Vaccination is recommended for all adults, including healthy adults ages 19–49yrs without risk factors. LAIV is licensed for use only for healthy nonpregnant people age 2 through 49yrs. Adults age 18 through 64yrs may be given any intramuscular IIV product or, alternatively, the intradermal IIV product (Fluzone Intradermal). Adults age 65yrs and older may be given standard-dose IIV or, alternatively, high-dose IIV (Fluzone High-Dose). <p>Note: Healthcare personnel who care for severely immunocompromised persons (i.e., those who require care in a protected environment) should receive IIV rather than LAIV. For information on other contraindications and precautions to LAIV, see far right column.</p>	<ul style="list-style-type: none"> Give 1 dose every year in the fall or winter. Begin vaccination services as soon as vaccine is available and continue until the supply is depleted. Continue to give vaccine to unvaccinated adults throughout the influenza season (including when influenza activity is present in the community) and at other times when the risk of influenza exists. If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, HZV, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d. 	<p>Contraindications</p> <ul style="list-style-type: none"> Previous anaphylactic reaction to this vaccine, to any of its components, including egg protein. For LAIV only: pregnancy; chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, neurological/neuromuscular, hematologic, or metabolic (including diabetes) disorders; immunosuppression (including that caused by medications or HIV). Adults with egg allergy of any severity may receive RIV or, adults who experience only hives with exposure to eggs may receive other IIV with additional safety precautions (i.e., observe patient for 30 minutes after receipt of vaccine for signs of a reaction). <p>Precautions</p> <ul style="list-style-type: none"> Moderate or severe acute illness. History of Guillain-Barré syndrome (GBS) within 6wks following previous influenza vaccination. For LAIV only: receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) 48hrs before vaccination. Avoid use of these antiviral drugs for 14d after vaccination.
<p>Pneumococcal polysaccharide (PPSV) <i>Give IM or SC</i></p> <p>Pneumococcal conjugate (PCV13) <i>Give IM</i></p>	<p>For people through age 18 years, consult "Summary of Recommendations for Child/Teen Immunization" www.immunize.org/catg.d/p2010.pdf.</p> <ul style="list-style-type: none"> People age 65yrs and older. People younger than age 65yrs who have chronic illness or other risk factors, including chronic cardiac or pulmonary disease (including asthma), chronic liver disease, alcoholism, diabetes, cigarette smoking, and people living in special environments or social settings (including American Indian/Alaska Natives age 50 through 64yrs if recommended by local public health authorities). Those at highest risk of serious pneumococcal infection, including people who <ul style="list-style-type: none"> Have anatomic or functional asplenia, including sickle cell disease. Have an immunocompromising condition, including HIV infection, leukemia, lymphoma, Hodgkin's disease, multiple myeloma, generalized malignancy, chronic renal failure, or nephrotic syndrome. Are receiving immunosuppressive chemotherapy (including high-dose corticosteroids). Have cerebrospinal fluid leaks Have received an organ or bone marrow transplant. Are a candidate for or recipient of a cochlear implant 	<p>For PPSV:</p> <ul style="list-style-type: none"> Give 1 dose of PPSV23 if unvaccinated or if previous vaccination history is unknown. Give another dose of PPSV to people <ul style="list-style-type: none"> Age 65yrs and older if 1st dose was given prior to age 65yrs and 5yrs have elapsed since dose #1. Age 19–64yrs who are at highest risk of pneumococcal infection or rapid antibody loss (see the 3rd bullet in the box to left for listings of people at highest risk) and 5yrs have elapsed since dose #1. <p>Note: When both PCV13 and PPSV23 are indicated, give PCV13 first.</p> <p>For PCV13 and PPSV:</p> <p>Give 1 dose of PCV13 to people age 19yrs and older at highest risk of serious pneumococcal infection (see column to left). If previously vaccinated with PPSV, give PCV13 at least 12m following PPSV; if not previously vaccinated with PPSV, give PCV13 first, followed by PPSV23 in 8wks.</p>	<p>Contraindication</p> <p>Previous anaphylactic reaction to this vaccine, including (for PCV13) to any diphtheria toxoid-containing vaccine, or to any of its components.</p> <p>Precaution</p> <p>Moderate or severe acute illness.</p>

*This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of these recommendations, visit CDC's website at www.cdc.gov/vaccines/hcp/ACIP-recs/index.html or visit the Immunization Action Coalition (IAC) website at

www.immunize.org/acip. This table is revised periodically. Visit IAC's website at www.immunize.org/adultrules to make sure you have the most current version.

Technical content reviewed by the Centers for Disease Control and Prevention

Immunization Action Coalition • Saint Paul, Minnesota • (651) 647-9009 • www.vaccineinformation.org • www.immunize.org

www.immunize.org/catg.d/p2011.pdf • Item #P2011 (3/14)

Assess adult vaccine status at every clinical encounter!

- Stay up-to-date on latest ACIP-recommended vaccines
- Utilize immunization information systems and electronic health records to automate assessment and generate reminders/recalls
- Train other office staff to assess patient prior to physician consultation
- Use videos in waiting room, preferably personalized
- Consider a patient self-assessment at check in

YOUR NAME _____ DATE OF BIRTH ____/____/____ TODAY'S DATE ____/____/____
month day year month day year

Do I Need Any Vaccinations Today?

This questionnaire will help you and your healthcare provider determine if you need any vaccinations today. Please check the boxes that apply to you.

Influenza vaccination

- I haven't had my annual influenza vaccination yet this season – so I need it now.

Pneumococcal vaccination (PPSV23, PCV13)

- I am 65 or older. I either never received a pneumococcal shot or I don't remember receiving a shot.
- I am 65 or older and received 1 or 2 doses of pneumococcal vaccine when I was younger than 65. It has either been 5 years or more since my last shot or I don't remember how long it has been.
- I am younger than 65. I have not been vaccinated against pneumococcal disease, and I am in one of the following risk groups:
- I smoke cigarettes.
 - I have heart, lung (including asthma), liver, kidney, or sickle cell disease; diabetes; or alcoholism.
 - I have a weakened immune system due to cancer, Hodgkin's disease, leukemia, lymphoma, multiple myeloma, kidney failure, HIV/AIDS; or I am receiving radiation therapy; or I am on medication that suppresses my immune system.
 - I had an organ or bone marrow transplant.
 - I had my spleen removed, had or will have a cochlear implant, or have leaking spinal fluid.
 - I live in a nursing home or other long-term care facility, and I have never had a pneumococcal shot.

Tetanus-, diphtheria-, and pertussis (whooping cough)-containing vaccination (e.g., DTP, DTaP, Tdap, or Td)

- I either never received a dose of Tdap vaccine or I don't remember if I have.
- I have not yet received at least 3 tetanus- and diphtheria- containing shots.
- I have received at least 3 tetanus- and diphtheria-containing shots in my lifetime, but I believe it's been 10 years or more since I received my last shot.
- I am in my late second or third trimester of my pregnancy and haven't had a dose of Tdap vaccine during this pregnancy.

Measles-Mumps-Rubella (MMR) vaccination

- I was born in 1957 or later and either never received an MMR shot or I don't remember receiving a shot.
- I am a woman thinking about a future pregnancy and do not know if I'm immune to rubella.
- I am a healthcare worker, and I have no laboratory evidence of immunity to measles, mumps, or rubella. I received 1 dose of MMR vaccine, but I don't remember receiving 2 doses.
- I was born in 1957 or later. I received only 1 MMR shot, and I am in one of the following groups:
- I am entering college or a post-high school educational institution.
 - I am planning to travel internationally.

continued on page 2 ►

<http://www.immunize.org/catg.d/p4036.pdf>
f

Assess adult vaccine status at every clinical encounter!

- Implement standing orders
 - National Initiative launching now titled Take A Stand™: www.standingorders.org.
- Train other office staff to assess patient prior to physician consultation
 - Incorporate into routine patient intake
 - When vital signs are taken
- Assess your patients' records for missed opportunities
- Use reminder/recalls to get your patients thinking about, and coming in for, vaccines

Standing Orders for Administering Pneumococcal (PPSV23 and PCV13) Vaccine to Adults

Purpose: To reduce morbidity and mortality from pneumococcal disease by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet any of the criteria below.

Procedure

- Identify adults in need of vaccination with pneumococcal polysaccharide vaccine (PPSV23) based on the following criteria:
 - Age 65 years or older with no or unknown history of prior receipt of PPSV
 - Age 64 years or younger with no or unknown history of prior receipt of PPSV and any of the following conditions:
 - cigarette smoker
 - chronic cardiovascular disease (e.g., congestive heart failure, cardiomyopathies)
 - chronic pulmonary disease (e.g., chronic obstructive pulmonary disease, emphysema, asthma)
 - diabetes mellitus, alcoholism or chronic liver disease (cirrhosis),
 - candidate for or recipient of cochlear implant; cerebrospinal fluid leak
 - functional or anatomic asplenia (e.g., sickle cell disease, splenectomy)
 - immunocompromising condition (e.g., HIV infection, congenital immunodeficiency, hematologic and solid tumors)
 - immunosuppressive therapy (e.g., alkylating agents, antimetabolites, long-term systemic corticosteroids, radiation therapy)
 - organ or bone marrow transplantation; chronic renal failure or nephrotic syndrome
- Identify adults in need of an additional dose of PPSV23 if 5 or more years have elapsed since the previous dose of PPSV and the patient meets one of the following criteria:
 - Age 65 years or older and received prior PPSV vaccination before age 65 years
 - Age 64 years or younger and at highest risk for serious pneumococcal infection or likely to have a rapid decline in pneumococcal antibody levels (i.e., categories 1.vi.-ix. above)
- Identify adults age 19 years and older in need of vaccination with pneumococcal conjugate vaccine (PCV13) who are at highest risk for serious pneumococcal infection or likely to have a rapid decline in pneumococcal antibody levels (i.e., categories 1.v.-1.ix. above).
- Screen all patients for contraindications and precautions to pneumococcal vaccine:
 - Contraindication:** a history of a serious reaction (e.g., anaphylaxis) after a previous dose of pneumococcal vaccine (PPSV or PCV) or to a vaccine component. For a list of vaccine components, go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
 - Precaution:** moderate or severe acute illness with or without fever
- Provide all patients with a copy of the most current federal Vaccine Information Statement (VIS). Although not required by federal law, it is prudent to document in the patient's medical record or office log, the publication date of the VIS and the date it was given to the patient. Provide non-English speaking patients with a copy of the VIS in their native language, if available; these can be found at www.immunize.org/vis.
- Administer vaccine as follows:
 - For adults identified in 1. and 2. above, administer 0.5 mL PPSV23 vaccine either intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle or subcutaneously (23–25g, ½" needle) in the posterolateral fat of the upper arm.
 - For adults identified in 3. above, administer 0.5 mL PCV13 intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle. For adults previously vaccinated with PPSV, give PCV13 at least 12 months following PPSV. If not previously vaccinated with PPSV, give PCV13 first, followed by PPSV23 in 8 weeks.

(Note: A ½" needle may be used for IM injection for patients who weigh less than 130 lbs <60kg) for injection in the deltoid muscle, only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.)
- Document each patient's vaccine administration information and follow up in the following places:
 - Medical chart:** Record the date the vaccine was administered, the manufacturer and lot number, the vaccination site and route, and the name and title of the person administering the vaccine. If vaccine was not given, record the reason(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal).
 - Personal immunization record card:** Record the date of vaccination and the name/location of the administering clinic.
- Be prepared for management of a medical emergency related to the administration of vaccine by having a written emergency medical protocol available, as well as equipment and medications.
- Report all adverse reactions to PPSV23 and PCV13 to the federal Vaccine Adverse Event Reporting System (VAERS) at www.vaers.hhs.gov or by calling (800) 822-7967. VAERS report forms are available at www.vaers.hhs.gov.

This policy and procedure shall remain in effect for all patients of the _____ until rescinded or until _____ (date).
(name of practice or clinic)

Medical Director's signature: _____ Effective date: _____

For standing orders for other vaccines, go to www.immunize.org/standing-orders

Technical content reviewed by the Centers for Disease Control and Prevention.

www.immunize.org/catg.d/p3075.pdf • Item #P3075 (8/12)

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<http://www.immunize.org/standing-orders/>

Assess adult vaccine status at every clinical encounter!

- Implement standing orders
- Train other office staff to assess patient prior to physician consultation
 - Incorporate into routine patient intake
 - When vital signs are taken
- Assess your patients records for missed opportunities
- Use reminder/recalls to get your patients thinking about, and coming in for, vaccines

You Outgrow Security Blankets, Not Vaccines



Did you know that influenza vaccine is just one of the vaccinations recommended for adults by the Centers for Disease Control and Prevention (CDC)?

Unfortunately, most adults are not vaccinated as recommended, leaving them needlessly vulnerable to illness. While the need for vaccination is most closely associated with children, there are several vaccines that adults should receive, including:

- Pneumococcal disease
- Shingles
- Hepatitis B
- Human papillomavirus (HPV)
- Tetanus, diphtheria, and pertussis (Tdap)
- Measles, mumps, and rubella (MMR)

Call our office today to find out if you should receive any of these or other vaccines recommended for adults

[INSERT SPECIFIC OFFICE CONTACT INFORMATION]



ADULTVACCINATION.ORG

March 2012



[STAMP]

**You Outgrow
Security Blankets,
Not Vaccines**

[MAILING ADDRESS]

<http://www.adultvaccination.com/professional-resources/practice-toolkit/reminder-postcard.pdf>

Assess adult vaccine status at every clinical encounter!

- Adults do think that immunization is important - they just don't realize that they need vaccines throughout their lives beyond influenza vaccine.
- If a trusted HCP recommends a vaccine with tailored reasons for why its important, they are likely to get it
- If vaccines are not discussed, adults assume its not important
- So, assessment is critical, but so is the strong and clear recommendation
- For CDC's fact sheet on assessment:
<http://www.cdc.gov/vaccines/hcp/patient-ed/adults/downloads/standards-immz-practice-assessment.pdf>.

A STRONG RECOMMENDATION

- The healthcare professional is the most valued and trusted source of health information for adults
- Make the recommendation regardless of whether you stock the vaccine; or intend to vaccinate
 - Be clear, confident, concise, consistent
- You have to be strong in your recommendation as a half-hearted attempt can backfire

S-H-A-R-E the recommendation (CDC)

- S - Share the reasons why the vaccine is important considering patient's H-A-L-O
- H - Highlight your own personal experiences to show benefits of, and boost confidence in, vaccines
- A - Address patient's questions and concerns
- R - Remind that adult VPDs are present and that their vaccination also protects their family
- E - Explain the costs and impact of getting sick

A strong recommendation

- Remember, if a patient declines vaccination the first time, it does not mean that s/he will decline on a second offering later so do not stop recommending the vaccine!

- But if patient declines:

- Reinforce the benefits of getting vaccinated during the current visit
- Send educational materials home or give trusted websites to review
- Use reminder/recall systems to remind patient about needed vaccines
- Document your conversation and declination, and continue recommending at the next visit

- For CDC's fact sheet on recommendation:

<http://www.cdc.gov/vaccines/hcp/patient-ed/adults/downloads/standards-immz-practice-recommendation.pdf>.

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Vaccinations for Adults

You're never too old to get immunized!

Getting immunized is a lifelong, life-protecting job. Don't leave your healthcare provider's office without making sure you've had all the vaccinations you need.

Vaccine	Do you need it?
Hepatitis A (HepA)	Maybe. You need this vaccine if you have a specific risk factor for hepatitis A virus infection* or simply want to be protected from this disease. The vaccine is usually given in 2 doses, 6–18 months apart.
Hepatitis B (HepB)	Maybe. You need this vaccine if you have a specific risk factor for hepatitis B virus infection* or simply want to be protected from this disease. The vaccine is given in 3 doses, usually over 6 months.
Human papillomavirus (HPV)	Maybe. You need this vaccine if you are a woman age 26 years or younger or a man age 21 years or younger. Men age 22 through 26 years with a risk condition* also need vaccination. Any other man age 22 through 26 who wants to be protected from HPV may receive it, too. The vaccine is given in 3 doses over 6 months.
Influenza	Yes! You need a dose every fall (or winter) for your protection and for the protection of others around you.
Measles, mumps, rubella (MMR)	Maybe. You need at least 1 dose of MMR if you were born in 1957 or later. You may also need a 2nd dose.*
Meningococcal (MCV4, MPSV4)	Maybe. You need this vaccine if you have one of several health conditions, or if you are 19–21 and a first-year college student living in a residence hall and you either have never been vaccinated or were vaccinated before age 16.*
Pneumococcal (PPSV23, PCV13)	Maybe. You need 1 dose of PPSV23 at age 65 years (or older) if you've never been vaccinated or you were previously vaccinated at least 5 years ago when you were younger than age 65 years. You also need 1–2 doses if you smoke cigarettes or have certain chronic health conditions. Some adults with certain high risk conditions also need vaccination with PCV13. Talk to your healthcare provider to find out if you need this vaccine.*
Tetanus, diphtheria, whooping cough (pertussis) (Tdap, Td)	Yes! All adults need to get Tdap vaccine (the adult whooping cough vaccine) and women need to get a dose during each pregnancy. After that, you need a Td booster dose every 10 years. Consult your healthcare provider if you haven't had at least 3 tetanus- and diphtheria-containing shots sometime in your life or have a deep or dirty wound.
Varicella (Chickenpox)	Maybe. If you've never had chickenpox or were vaccinated but received only 1 dose, talk to your healthcare provider to find out if you need this vaccine.*
Zoster (shingles)	Maybe. If you are age 60 years or older, you should get a 1-time dose of this vaccine now.

*Consult your healthcare provider to determine your level of risk for infection and your need for this vaccine.

Are you planning to travel outside the United States? If so, you may need additional vaccines. The Centers for Disease Control and Prevention (CDC) provides information to assist travelers and their healthcare providers in deciding which vaccines, medications, and other measures are necessary to prevent illness and injury during international travel. Visit CDC's website at www.cdc.gov/travel or call 800-CDC-INFO (800-232-4636). You may also consult a travel clinic or your healthcare provider.



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www.immunize.org/catg.d/p4030.pdf • Item #P4030 (4/13)

<http://www.immunize.org/catg.d/p4030.pdf>

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VACCINATE OR REFER!

- Missed opportunities are the number one reason why vaccinations are missed and coverage rates are low
- Thus, recommend and offer vaccines at the same visit!
 - Data shows that patients offered vaccination at the same time as they received the recommendation for the vaccine are much more likely to accept the vaccine
- If you do not vaccinate, please REFER the patient to a known immunizing provider... and follow up to ensure receipt!

When vaccinating, remember to

- Provide the appropriate vaccine information statements (VIS) - it's the law!
- Ensure your staff are trained to administer vaccines
- Ensure that all vaccines are stored and handled properly to maintain cold chain and vaccine viability
- Follow proper infection control procedures
- Use standing orders to routinize and simplify administration
- Pay attention to vaccine adverse events and know how to manage them!
- For CDC's fact sheet on administration:
<http://www.cdc.gov/vaccines/hcp/patient-ed/adults/downloads/standards-immz-practice-admin.pdf>.



Skills Checklist for Immunization

The Skills Checklist is a self-assessment tool for health care staff who administer immunizations. To complete it, review the competency areas below and the clinical skills, techniques, and procedures outlined for each of them. Score yourself in the Self-Assessment column. If you check **Need to Improve**, you indicate further study, practice, or change is needed. When you check **Meets or Exceeds**, you indicate you believe you are performing at the expected level of competence, or higher.

Supervisors: Use the Skills Checklist to clarify responsibilities and expectations for staff who administer vaccines. When you use it for performance reviews, give staff the opportunity to score themselves in advance. Next, observe their performance as they provide immunizations to several patients and score in the **Supervisor Review** columns. If improvement is needed, meet with them to develop a **Plan of Action** (p. 2) that will help them achieve the level of competence you expect; circle desired actions or write in others.

The DVD "Immunization Techniques: Best Practices with Infants, Children, and Adults" ensures that staff administer vaccines correctly. Order online at www.immunize.org/dvd

Competency	Clinical Skills, Techniques, and Procedures	Self-Assessment		Supervisor Review		
		Need to Improve	Meets or Exceeds	Need to Improve	Meets or Exceeds	Plan of Action*
A. Patient/Parent Education	1. Welcomes patient/family, establishes rapport, and answers any questions.					
	2. Explains what vaccines will be given and which type(s) of injection will be done.					
	3. Accommodates language or literacy barriers and special needs of patient/parents to help make them feel comfortable and informed about the procedure.					
	4. Verifies patient/parents received the Vaccine Information Statements for indicated vaccines and had time to read them and ask questions.					
	5. Screens for contraindications. (MA: score NA—not applicable—if this is MD function.)					
	6. Reviews comfort measures and after care instructions with patient/parents, inviting questions.					
B. Medical Protocols	1. Identifies the location of the medical protocols (i.e. immunization protocol, emergency protocol, reference material).					
	2. Identifies the location of the epinephrine, its administration technique, and clinical situations where its use would be indicated.					
	3. Maintains up-to-date CPR certification.					
	4. Understands the need to report any needlestick injury and to maintain a sharps injury log.					
C. Vaccine Handling	1. Checks vial expiration date. Double-checks vial label and contents prior to drawing up.					
	2. Maintains aseptic technique throughout.					
	3. Selects the correct needle size for IM and SC.					
	4. Shakes vaccine vial and/or reconstitutes and mixes using the diluent supplied. Inverts vial and draws up correct dose of vaccine. Rechecks vial label.					
	5. Labels each filled syringe or uses labeled tray to keep them identified.					
	6. Demonstrates knowledge of proper vaccine handling, e.g. protects MMR from light, logs refrigerator temperature.					

Adapted from California Department of Public Health • Immunization Branch

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www.immunize.org/catg.d/p7010.pdf • Item #P7010 (2/14) page 1 of 2

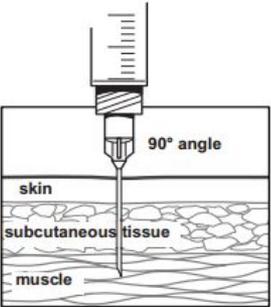
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<http://www.immunize.org/catg.d/p7010.pdf>

How to Administer Intramuscular (IM) Vaccine Injections

Administer these vaccines by the intramuscular (IM) route: diphtheria-tetanus-pertussis (DTaP, Tdap); diphtheria-tetanus (DT, Td); *Haemophilus influenzae* type b (Hib); hepatitis A (HepA); hepatitis B (HepB); human papillomavirus (HPV); inactivated influenza (TIV); quadrivalent meningococcal conjugate (MCV4); and pneumococcal conjugate (PCV). Administer inactivated polio (IPV) and pneumococcal polysaccharide (PPSV23) either IM or SC.

Patient age	Injection site	Needle size	Needle insertion
Newborn (0–28 days)	Anterolateral thigh muscle	½" (22–25 gauge)	<p>Use a needle long enough to reach deep into the muscle.</p> <p>Insert needle at a 90° angle to the skin with a quick thrust.</p> <p>(Before administering an injection of vaccine, it is not necessary to aspirate, i.e., to pull back on the syringe plunger after needle insertion.†)</p> <p>Multiple injections given in the same extremity should be separated by a minimum of 1", if possible.</p> 
Infant (1–12 months)	Anterolateral thigh muscle	1" (22–25 gauge)	
Toddler (1–2 years)	Anterolateral thigh muscle	1–1¼" (22–25 gauge)	
	Alternate site: Deltoid muscle of arm if muscle mass is adequate	½–1" (22–25 gauge)	
Children (3–18 years)	Deltoid muscle (upper arm)	½–1" (22–25 gauge)	
	Alternate site: Anterolateral thigh muscle	1–1¼" (22–25 gauge)	
Adults 19 years and older	Deltoid muscle (upper arm)	1–1½" (22–25 gauge)	
	Alternate site: Anterolateral thigh muscle	1–1½" (22–25 gauge)	

†A ½" needle usually is adequate for neonates (first 28 days of life), preterm infants, and children ages 1 through 18 years if the skin is stretched flat between the thumb and forefinger and the needle is inserted at a 90° angle to the skin.

†A ½" needle is sufficient in adults weighing less than 130 lbs (<60 kg) if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle; a 1" needle is sufficient in adults weighing 130–152 lbs (60–70 kg); a 1–1¼" needle is recommended in women weighing 152–200 lbs (70–90 kg) and men weighing 152–260 lbs (70–118 kg); a 1½" needle is recommended in women weighing more than 200 lbs (>90 kg) or men weighing more than 260 lbs (>118 kg).

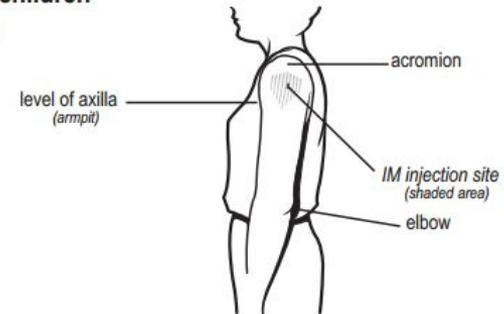
†CDC. "ACIP General Recommendations on Immunization" at www.immunize.org/acip

IM site for infants and toddlers



Insert needle at a 90° angle into the anterolateral thigh muscle.

IM site for children and adults

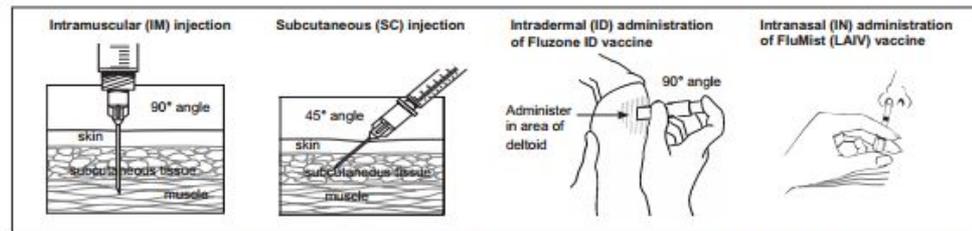


Insert needle at a 90° angle into thickest portion of deltoid muscle — above the level of the axilla and below the acromion.

Administering Vaccines: Dose, Route, Site, and Needle Size

Vaccine	Dose	Route	Injection Site and Needle Size		
Diphtheria, Tetanus, Pertussis (DTaP, DT, Tdap, Td)	0.5 mL	IM	Subcutaneous (SC) injection Use a 23–25 gauge needle. Choose the injection site that is appropriate to the person's age and body mass.		
<i>Haemophilus influenzae</i> type b (Hib)	0.5 mL	IM	Age	Needle Length	Injection Site
Hepatitis A (HepA)	≤18 yrs: 0.5 mL ≥19 yrs: 1.0 mL	IM	Infants (1–12 mos)	5/8"	Fatty tissue over anterolateral thigh muscle
Hepatitis B (HepB) <i>*Persons 11–15 yrs may be given Recombivax HB (Merck) 1.0 mL adult formulation on a 2-dose schedule.</i>	<19 yrs: 0.5 mL ≥20 yrs: 1.0 mL	IM	Children 12 mos or older, adolescents, and adults	5/8"	Fatty tissue over anterolateral thigh muscle or fatty tissue over triceps
Human papillomavirus (HPV)	0.5 mL	IM	Intramuscular (IM) injection Use a 22–25 gauge needle. Choose the injection site and needle length appropriate to the person's age and body mass.		
Influenza, live attenuated (LAIV)	0.2 mL	Intranasal spray	Age	Needle Length	Injection Site
Influenza, trivalent inactivated (TIV)	6–35 mos: 0.25 mL ≥3 yrs: 0.5 mL	IM	Newborns (1 st 28 days)	5/8"*	Anterolateral thigh muscle
TIV: Fluzone intradermal (18–64 yrs)	0.1 mL	ID	Infants (1–12 mos)	1"	Anterolateral thigh muscle
Measles, Mumps, Rubella (MMR)	0.5 mL	SC	Toddlers (1–2 yrs)	1–1 1/4" 5/8"–1"*	Anterolateral thigh muscle or deltoid muscle of arm
Meningococcal – conjugate (MCV)	0.5 mL	IM	Children & teens (3–18 years)	5/8"–1"* 1"–1 1/4"	Deltoid muscle of arm or anterolateral thigh muscle
Meningococcal – polysaccharide (MPSV)	0.5 mL	SC	Adults 19 yrs or older		
Pneumococcal conjugate (PCV)	0.5 mL	IM	Male or female less than 130 lbs	5/8"–1"*	Deltoid muscle of arm
Pneumococcal polysaccharide (PPSV)	0.5 mL	IM or SC	Female 130–200 lbs Male 130–260 lbs	1–1 1/2"	Deltoid muscle of arm
Polio, inactivated (IPV)	0.5 mL	IM or SC	Female 200+ lbs Male 260+ lbs	1 1/2"	Deltoid muscle of arm
Rotavirus (RV)	Rotarix: 1.0 mL Rotateq: 2.0 mL	Oral	<i>*A 5/8" needle may be used for patients weighing less than 130 lbs (<60 kg) for IM injection in the deltoid muscle <u>only</u> if the skin is stretched tight, the subcutaneous tissue is not bunched, and the injection is made at a 90-degree angle.</i>		
Varicella (Var)	0.5 mL	SC			
Zoster (Zos)	0.65 mL	SC			
Combination Vaccines					
DTaP-HepB-IPV (Pediarix) DTaP-IPV/Hib (Pentacel) DTaP-IPV (Kinrix) Hib-HepB (Comvax)	0.5 mL	IM			
MMRV (ProQuad)	≤12 yrs: 0.5 mL	SC			
HepA-HepB (Twinrix)	≥18 yrs: 1.0 mL	IM			

<http://www.immunize.org/catg.d/p3085.pdf>



Please note: Always refer to the package insert included with each biologic for complete vaccine administration information. CDC's Advisory Committee on Immunization Practices (ACIP) recommendations for the particular vaccine should be reviewed as well (see www.immunize.org/acip).

When vaccinating, remember to

- Provide the appropriate vaccine information statements (VIS) - it's the law!
- Ensure your staff are trained to administer vaccines
- Ensure that all vaccines are stored and handled properly to maintain cold chain and vaccine viability
- Follow proper infection control procedures
- Use standing orders to routinize and simplify administration
- Pay attention to vaccine adverse events and know how to manage them!
- For CDC's fact sheet on administration:
<http://www.cdc.gov/vaccines/hcp/patient-ed/adults/downloads/standards-immz-practice-admin.pdf>.

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Vaccines and Immunizations



Vaccines and Immunizations Home

Immunization Schedules

Recommendations and Guidelines

Advisory Committee on Immunization Practices (ACIP)

Vaccine Storage & Handling

Vaccine Administration

Recalled Vaccines

Reminder Systems and Strategies for Increasing Vaccination Rates

Vaccines & Preventable Diseases

Basics and Common Questions

Vaccination Records

Vaccines and Immunizations Home > Recommendations and Guidelines



Vaccine Storage and Handling

Recommendations and Guidelines

At a Glance

Proper vaccine storage and handling practices play a very important role in protecting individuals and communities from vaccine-preventable diseases.

Vaccine quality is the shared responsibility of everyone, from the time vaccine is manufactured until it is administered.



Resources on Proper Vaccine Storage and Handling

- [Keys to Storing and Handling Your Vaccine Supply](#) is a video designed to decrease vaccine storage and handling errors and preserve the nation's vaccine supply by demonstrating to immunization providers the recommended best practices for storage and handling of vaccines. (Video is a winner of the Winter/Spring 2014 Web Health Award) **NEW MAY 2014**

These storage and handling fact sheets illustrate best practices for both



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Running Time: 5:07 mins
Date Released: 06/27/2011
CDC
Commentary - Make No Mistake: Vaccine Administration, Storage, and Handling

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When vaccinating, remember to

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- Pay attention to vaccine adverse events and know how to manage them!
 - <http://www.cdc.gov/vaccines/vac-gen/safety/default.htm>
- For CDC's fact sheet on administration
 - <http://www.cdc.gov/vaccines/hcp/patient-ed/adults/downloads/standards-immz-practice-admin.pdf>

Referral

- Refer your patients to other immunization providers for vaccines that your practice does not stock
 - Give strong recommendation and then refer patient
- Confirm that patients received recommended vaccines by following up at the next visit . And document!
- Possible vaccine referral options
 - HealthMap Vaccine Finder (vaccine.healthmap.org)
 - Health Departments often provide routine vaccinations or can help you: www.vaccines.gov/getting/where/ and click on the appropriate state to learn more
 - Pharmacies are convenient for many patients
 - Travel clinics: <http://wwwnc.cdc.gov/travel/page/find-clinic>
- For CDC's fact sheet on referral:
<http://www.cdc.gov/vaccines/hcp/patient-ed/adults/downloads/standards-immz-practice-referral.pdf>

DOCUMENT VACCINE RECEIPT!

- After Vaccination

- Record vaccination in patients' medical records
- Provide documentation of vaccines received to patients for their personal records.
- Document vaccinations in immunization information systems (IIS)
 - Important for continuity of care and to prevent duplicative vaccination
- Consider giving patient own vaccine record

- After Referral

- Follow up with your patient to ensure that recommended vaccines were indeed received

Vaccine Administration Record for Adults

Patient name: Mohammed Sharik
 Birthdate: 1/14/1981 Chart number: _____
 Clinic name and address: Small Town Clinic
1st and Main Streets
Anywhere, AB 12345

Before administering any vaccines, give the patient copies of all pertinent Vaccine Information Statements (VISs) and make sure he/she understands the risks and benefits of the vaccine(s). Always provide or update the patient's personal record card.

Vaccine	Type of Vaccine ¹	Date given (m/d/y) ²	Funding source (F,S,P) ³	Route ⁴ & Site ⁵	Vaccine		Vaccine Information Statement (VIS)		Vaccinator ⁶ (signature or initials & title)
					Lot #	Mfr.	Date on VIS ¹	Date given ²	
Tetanus, Diphtheria, Pertussis (e.g., Td, Tdap) Give IM. ²	Td	8/1/2000	P	IM/LA	40376AA	AVP	6/10/94	8/1/00	JTA
	Td	9/1/2000	P	IM/LA	40376AA	AVP	6/10/94	9/1/00	PWS
	Td	3/1/2003	P	IM/LA	40376AA	AVP	6/10/94	3/1/03	TAA
	Tdap	6/14/2010	P	IM/LA	AD50B030AA	GSK	6/14/10	6/14/10	JTA
Hepatitis A ⁴ (e.g., HepA, HepA-HepB) Give IM. ²	HepA-HepB	8/1/2000	P	IM/RA	HAB039A4	GSK	8/25/98	8/1/00	JTA
	HepA-HepB	9/1/2000	P	IM/RA	HAB039A4	GSK	8/25/98	9/1/00	PWS
	HepA-HepB	3/1/2003	P	IM/RA	HAB039A4	GSK	8/25/98	3/1/03	TAA
Hepatitis B ⁴ (e.g., HepB, HepA-HepB) Give IM. ²	HepA-HepB	8/1/2000	P	IM/RA	HAB039A4	GSK	7/11/01	8/1/00	JTA
	HepA-HepB	9/1/2000	P	IM/RA	HAB039A4	GSK	7/11/01	9/1/00	PWS
	HepA-HepB	3/1/2003	P	IM/RA	HAB039A4	GSK	7/11/01	3/1/03	TAA
Human papillomavirus (HPV2, HPV4) Give IM. ²									
Measles, Mumps, Rubella (MMR) Give SC. ²	MMR	8/1/2000	P	SC/RA	0005L	MRK	6/13/00	8/1/00	JTA
	MMR	11/1/2000	P	SC/RA	0005L	MRK	6/13/00	11/1/00	TAA
Varicella (VAR) Give SC. ²	VAR	8/1/2000	P	SC/LA	0999M	MRK	12/16/98	8/1/00	JTA
	VAR	11/1/2000	P	SC/LA	0689M	MRK	12/16/98	11/1/00	TAA
Pneumococcal (e.g., PCV13, conjugate; PPSV23, polysaccharide) Give PCV13 IM. ² Give PPSV23 IM or SC. ²									
Meningococcal (e.g., MenACWY, conjugate; MPSV4, polysaccharide) Give MenACWY IM. ² Give MPSV4 SC. ²	Menw0	7/12/2010	P	IM/RA	05011	NOV	1/2/8/08	7/12/10	JTA

See page 2 to record influenza, Hib, zoster, and other vaccines (e.g., travel vaccines).

How to Complete This Record

- Record the generic abbreviation (e.g., Tdap) or the trade name for each vaccine (see table at right).
- Record the funding source of the vaccine given as either F (federal), S (state), or P (private).
- Record the route by which the vaccine was given as either intramuscular (IM), subcutaneous (SC), intradermal (ID), intranasal (IN), or oral (PO) and also the site where it was administered as either RA (right arm), LA (left arm), RT (right thigh), or LT (left thigh).
- Record the publication date of each VIS as well as the date the VIS is given to the patient.
- To meet the space constraints of this form and federal requirements for documentation, a healthcare setting may want to keep a reference list of vaccinators that includes their initials and titles.
- For combination vaccines, fill in a row for each antigen in the combination.

Abbreviation	Trade Name and Manufacturer
Tdap	Adacel (sanofi pasteur); Boostrix (GlaxoSmithKline) (GSK)
Td	Decavac (sanofi pasteur); generic Td (BA Biological Labs)
HepA	Hevac (GSK); Vaxta (Merck)
HepB	Engerix-B (GSK); Recombivax HB (Merck)
HepA-HepB	Twinrix (GSK)
HPV2	Cervarix (GSK)
HPV4	Gardasil (Merck)
MMR	MMRII (Merck)
VAR	Varivax (Merck)
PCV13, PPSV23	Prevnar 13 (Pfizer); Pneumovax 23 (Merck)
MenACWY	Menactra (sanofi pasteur); Menveo (Novartis)
MPSV4	Menomune (sanofi pasteur)

<http://www.immunize.org/catg.d/p2023.pdf>

Know why the IIS is important

- Immunization Information Systems can help by:
 - Consolidating vaccination records for patients
 - Assisting in assessment for needed vaccines
 - Integrating with reminder-recall systems to automate process
 - Being used in quality measures and coverage tracking
 - Helping assessment of practice's immunization rates
 - Prevents over immunizations and reduces missed opportunities for vaccination

• Learn more about IIS at:

<http://www.cdc.gov/vaccines/programs/iis/training.html>

• State IIS staff can be located at: IIS contacts in each state can be found at:

<http://www.cdc.gov/vaccines/programs/iis/contacts-registry-staff.html>

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DOCUMENT VACCINE RECEIPT!

- Remember that documenting vaccinations in the IIS meets one of the Centers for Medicare & Medicaid Services "Core" Meaningful Use criteria

- For more information on meaningful use, see:

<http://www.cdc.gov/ehrmeaningfuluse/introduction.html>

- For the CDC's fact sheet on documentation:

<http://www.cdc.gov/vaccines/hcp/patient-ed/adults/downloads/standards-documentation.pdf>

Document any adverse events!

- Like any medication or medical intervention, vaccines are not risk free and will have the potential to cause adverse reactions
- Most vaccine adverse events are rare and usually minor
- Ensure that your practice is prepared to handle severe reactions
- **REPORT** any potential adverse events associated with vaccination to the Vaccine Adverse Events Reporting System (VAERS)
 - <http://www.cdc.gov/vaccinesafety/Activities/vaers.html>
 - Remember that health care providers are required by law to report to VAERS:
 - Any conditions on the Reportable Events Table (VICP)
 - Vaccine adverse events that are listed in the manufacturer's package insert
 - Clinically significant or unexpected events following vaccination

Medical Management of Vaccine Reactions in Adult Patients

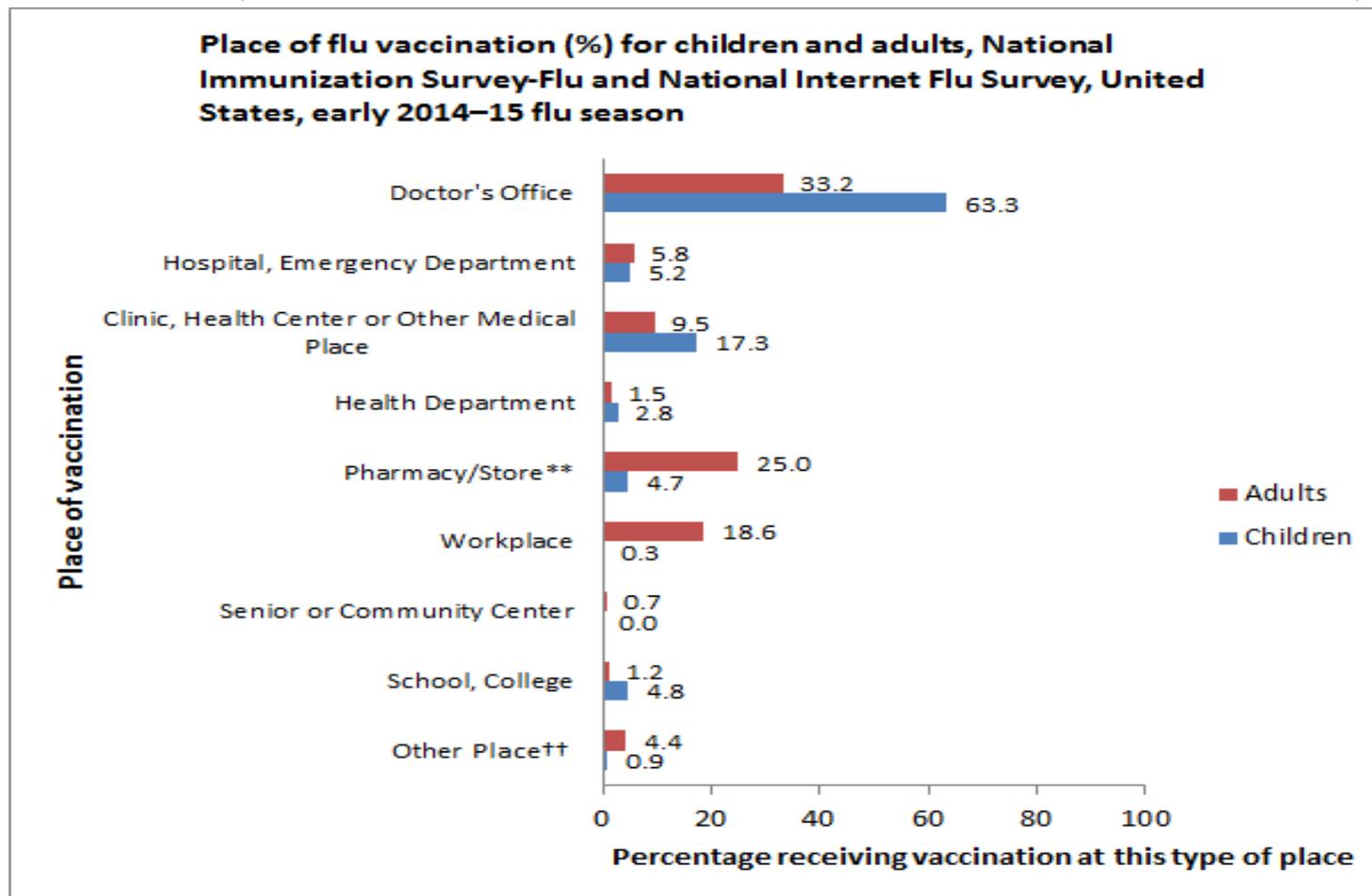
All vaccines have the potential to cause an adverse reaction. In order to minimize adverse reactions, patients should be carefully screened for precautions and contraindications before vaccine is administered. Even with careful screening, reactions may occur. These reactions can vary from trivial and inconvenient (e.g., soreness, itching) to severe and life threatening (e.g., anaphylaxis). If reactions occur, staff should be prepared with procedures for their management. The table below describes procedures to follow if various reactions occur.

Reaction	Symptoms	Management
Localized	Soreness, redness, itching, or swelling at the injection site	Apply a cold compress to the injection site. Consider giving an analgesic (pain reliever) or antipruritic (anti-itch) medication.
	Slight bleeding	Apply an adhesive compress over the injection site.
	Continuous bleeding	Place thick layer of gauze pads over site and maintain direct and firm pressure; raise the bleeding injection site (e.g., arm) above the level of the patient's heart.
Psychological fright and syncope (fainting)	Fright before injection is given	Have patient sit or lie down for the vaccination.
	Extreme paleness, sweating, coldness of the hands and feet, nausea, light-headedness, dizziness, weakness, or visual disturbances	Have patient lie flat or sit with head between knees for several minutes. Loosen any tight clothing and maintain an open airway. Apply cool, damp cloths to patient's face and neck.
	Fall, without loss of consciousness	Examine the patient to determine if injury is present before attempting to move the patient. Place patient flat on back with feet elevated.
	Loss of consciousness	Check the patient to determine if injury is present before attempting to move the patient. Place patient flat on back with feet elevated. Call 911 if patient does not recover immediately.
Anaphylaxis	Sudden or gradual onset of generalized itching, erythema (redness), or urticaria (hives); angioedema (swelling of the lips, face, or throat); severe bronchospasm (wheezing); shortness of breath; shock; abdominal cramping; or cardiovascular collapse.	See "Emergency Medical Protocol for Management of Anaphylactic Reactions in Adults" on the next page for detailed steps to follow in treating anaphylaxis.

(continued on page 2)

<http://www.immunize.org/catg.d/p3082.pdf>

Place of flu vaccination among children and adults, early 2014-15 flu season, National Immunization Survey and National Internet Flu Survey



** Pharmacy/Store includes pharmacy or drugstore and local supermarket or grocery store.

†† Other place includes military-related place, other school such as trade school, home, and other unspecified non-medical place.

Available at: <http://www.cdc.gov/flu/fluview/nifs-estimates-nov2014.htm>

immunization
action coalition

IAC

immunize.org

Ultimate Goal of the new Standards - "Immunization Neighborhood"

- Purpose:

- Collaboration, Coordination and Communication among immunization stakeholders dedicated to meeting the immunization needs of the patient and protecting the community from vaccine preventable diseases.

- To see all supporting organizations and other resources:

<http://www.izsummitpartners.org/adult-immunization-standards/>

- Also find tools to support implementation, eg. speaker slide deck.



Example of Practice Standards Implementation: Osterhaus Pharmacy (Maquoketa, IA)

- Eastern Iowa is a large rural area, people have limited access to health care services and local vaccination rates are some of the lowest in the state. Osterhaus Pharmacy initiated a process to address the problem by identifying 272 patients with diabetes, the largest at-risk group, in its system and flagged them for outreach and immunization with Tdap, zoster, pneumococcal, hepatitis B, and influenza vaccines.
 - In 2014, nearly 200 of these patients had been screened and vaccinated. Before this pharmacist intervention, only three of these patients were up-to-date on their immunization.
- Teamed with two local physician clinics to coordinate immunization records, screen and immunize patients, and educate patients on the importance of staying current with recommended immunizations.

Example of Practice Standards Implementation: Osterhaus Pharmacy (Maquoketa, IA)

- Partnered with a local physician to establish eight collaborative practice agreements and one emergency protocol allowing pharmacists to immunize any adult patient without a prescription.
- Developed a fax form to facilitate communication between pharmacists and clinics and easy-to-use screening tool to identify required immunizations.
- Pharmacists held phone conferences with local nurse practitioners and physician assistants to bring them up-to-date on current guidelines.
 - This collaboration has improved pharmacist-nurse-physician relationships and increased trust between providers. It has also helped verify patient immunization records and improved patients' perception of the healthcare system, helping them see that pharmacists, physicians, and nurses work together as a team to provide high quality care.

Visit IAC Resources!

- Read our publications!
 - <http://www.immunize.org/publications/>
- Visit our websites!
 - www.immunize.org
 - www.vaccineinformation.org
 - www.izcoalitions.org
 - www.izsummitpartners.org (Summit)
- Stay ahead of the game! Subscribe to our updates!
 - <http://www.immunize.org/subscribe/>

Thank You!

Extra Slides

Framework

Adult Immunization Standards

All Providers

- Emphasize IZ in all patient encounters and incorporate IZ needs assessment into every clinical encounter.
- Recommend, administer needed vaccine or refer to a provider who can immunize.
- Stay up-to-date and educate patients.
- Implement systems to incorporate vaccine assessment into routine clinical care.
- Understand how to access registries.

Non-immunizing Providers

- Routinely assess immunization status of patients, recommend needed vaccines and refer patient to an immunizing provider.
- Establish referral relationships with immunizing providers.
- Follow up to confirm patient receipt of recommended vaccine(s).

Immunization Providers

- Observe and adhere to professional competencies regarding immunizations.
- Assess immunization status in every patient care and counseling encounter and strongly recommend needed vaccines.
- Ensure receipt of vaccination is documented.

Framework

Adult Immunization Standards

Professional healthcare
related organizations /
associations/healthcare
systems

- Education and training of members, including trainees
- Resources and assistance to implement protocols, immunization practices, immunization assessment, etc
- Encourage members to be up-to-date on own immunizations
- Assist members in staying up-to-date on IZ info & recommendations
- Partner with others immunization stakeholders to educate the public
- Seek out collaboration opportunities with other immunization stakeholders
- Collect and share best practices
- Advocate policies that support adult immunization standards

Public Health
Departments

- Determine community needs and capacity and community barriers to adult IZ
- Support activities and policies to increase vaccination rates and reduce barriers
- Ensure professional competency
- Collect, analyze and disseminate data
- Outreach and education to public and providers
- Work to decrease disparities
- Increase registry access and use
- Develop billing capacities
- Ensure preparedness, communicate vaccine information to providers and to the public
- Promote adherence to laws and regulations pertaining to immunizations