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VACCINATE ADULTS!

Visit www.immunize.org for up-to-date adult immunization information from the Immunization Action Coalition

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What you'll find in this Vaccinate Adults issue

In the January 2010 issue, we promised you'd be seeing *Vaccinate Adults* more often. This February issue delivers on our promise. It focuses on the newly published 2010 U.S. immunization schedule for adults and on recently released provisional ACIP recommendations. Here's what this issue contains:

For healthcare professionals

Ask the Experts includes information you need to know about ACIP's recently issued provisional recommendations for administering existing and newly licensed vaccines for human papillomavirus (HPV), Japanese encephalitis, and yellow fever.

The page 2 editorial describes what's available on the IAC website so you can access the resources you need to vaccinate various patient groups. These resources include ACIP recommendations and vaccine manufacturers' vaccine package inserts.

The 2010 U.S. immunization schedule for vaccinating adults is reproduced on pages 4–6 in ready-to-print format. See pages 10–11 for detailed information about how to order IAC's popular laminated full-color version of this schedule and the schedule for vaccinating children and teens. Both include a guide to vaccine contraindications and precautions.

For patients

Ready-to-copy screening questionnaire: Save time by giving your adult patients copies of this handout so they can find out which vaccines they may need to receive at the current visit or a future visit.

Finally, to stay informed about breaking immunization news between issues of *Vaccinate Adults*, be sure you're subscribed to *IAC Express*, IAC's free weekly email news service. To subscribe to it and to IAC's two other periodicals—*Vaccinate Adults* and *Needle Tips*—go to www.immunize.org/subscribe.

Ask the Experts

IAC extends thanks to our experts, William L. Atkinson, MD, MPH, and Andrew T. Kroger, MD, MPH, medical epidemiologists at the National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention (CDC).

Immunization questions

What has changed in the 2010 U.S. immunization schedule for adults?

The 2010 immunization schedule was published in early January in *Morbidity and Mortality Weekly Report (MMWR)*. The schedule for adults is available at www.cdc.gov/mmwr/PDF/wk/mm5901-Immunization.pdf. Along with the new schedule, *MMWR* published a bulleted list that details how the 2010 schedule differs from the 2009 schedule. The list is reprinted in the paragraphs that follow.

Changes to the adult schedule:

• The human papillomavirus (HPV) footnote (#2)

Immunization questions?

- Call the CDC-INFO Contact Center at (800) 232-4636 or (800) CDC-INFO
- Email nipinfo@cdc.gov
- Call your state health dept. (phone numbers at www.immunize.org/coordinators)

includes language that a bivalent HPV vaccine (HPV2) has been licensed for use in females. Either HPV2 or the quadrivalent human papillomavirus vaccine (HPV4) can be used for vaccination of females ages 19 through 26 years. In addition, language has been added to indicate that the Advisory Committee on Immunization Practices (ACIP) issued a permissive recommendation for use of HPV4 in males.

- The measles, mumps, rubella (MMR) footnote (#5) has language added to clarify which adults born during or after 1957 do not need 1 or more doses of MMR vaccine for the measles and mumps components, and clarifies which women should receive a dose of MMR vaccine. Also, interval dosing information has been added to indicate when a second dose of MMR vaccine should be administered. Language has been added to highlight recommendations for vaccinating healthcare personnel born before 1957 routinely and during outbreaks.
- The hepatitis A footnote (#9) has language added to indicate that unvaccinated persons who anticipate close contact with an international adoptee should consider vaccination.
- The hepatitis B footnote (#10) has language added to include schedule information for the 3-dose hepatitis B vaccine.
- The meningococcal vaccine footnote (#11) clarifies which vaccine formulations are preferred for adults ages 55 years and younger and 56 years and older, and which vaccine formulation can be used for revaccination. New examples have

- been added to demonstrate who should and should not be considered for revaccination.
- The selected conditions for *Haemophilus influenzae* type b (Hib) footnote (#13) clarifies which high-risk persons may receive 1 dose of Hib vaccine.

CDC provides multiple formats of these schedules on its website at www.cdc.gov/vaccines/recs/schedules/default.htm.

The Immunization Action Coalition (IAC) makes available for purchase a full-color, 6-page laminated version of the adult immunization schedule and also of the child/teen schedule. For details go to www.immunize.org/shop.

(continued on page 12)

Subscribe to all the Immunization Action Coalition's free publications in one place. It's simple!

Our 2 periodicals, *Vaccinate Adults* and *Needle Tips*, and email news service, *IAC Express*, are packed with up-to-date information.

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Vaccinate Adults!

Online at www.immunize.org/va Immunization Action Coalition 1573 Selby Avenue, Suite 234 St. Paul, MN 55104 Phone: (651) 647-9009 Fax: (651) 647-9131 Email: admin@immunize.org

Websites: www.immunize.org www.vaccineinformation.org www.izcoalitions.org

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Publication Staff

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Get Your Patients on Schedule for Vaccination

Access these helpful and handy resources on immunize.org

January marks the official release of the recommended immunization schedules for adults, children, and adolescents. The Immunization Action Coalition (IAC) offers one-stop access to the official schedules on our website—www.immunize.org. Here you will also find many relevant and timely vaccination resources for staff and patients. Read on for more details.

CDC Schedules and IAC's Laminated Versions

www.immunize.org/cdc/schedules

IAC offers easy access to CDC's immunization schedules for adults, children, and adolescents in one spot on its website at CDC Schedules.

Based on CDC's 2010 immunization schedules, IAC's laminated schedules come complete with essential footnotes and are printed in color for easy reading. Each schedule has six pages (i.e., three double-sided pages); folded, each measures 8.5" x 11". Visit Shop IAC to learn more about the Adult Laminated Schedules and Child/Teen Laminated Schedules.

Immunization Action Coalition **Coalition Planting or Pulsament Planting Pulsament Plant

Visit CDC Schedules

ficial and authoritative information about vaccines from government and worldwide agencies such as the Centers for Disease Control and Prevention (CDC), Food and Drug Administration (FDA), and World Health Organization (WHO).

CDC's Advisory Committee on Immunization Practices (ACIP) recommendations are official federal guidelines for the use of vaccines and immune globulins in the United States. IAC provides three ways to access ACIP Recommendations.

Advisory Committee on Immunization Practices:

- Chronological Index
- Vaccine Index
- Topics of Interest Index

Links to additional ACIP-related resources are also provided.

Links to Package Inserts

www.immunize.org/packageinserts Organized and indexed by vaccine, the web section of Package Inserts saves web users time by eliminating the need to search for a package insert on the Food and Drug Administration's website or on the website of a vaccine manufacturer.

Vaccine Schedules Adapted for Patients and Parents

www.immunize.org/printmaterials/topic_schedules.asp IAC has adapted the official CDC immunization schedules into several easy-to-follow, ready-to-copy vaccination guides that you can hand out to patients and parents. Access these free print materials for adults, infants, children, and teens in the "Schedules for Patients" web section.

Official Vaccine Recommendations and Policy www.immunize.org/vacpolicy

Vaccine Policy and Licensure is your source for of-

Subscribe to IAC's Online Publications

www.immunize.org/subscribe

Finally, we suggest that web users who want to stay up to date subscribe to our free online publications: *IAC Express*, our weekly email news service, and *Vaccinate Adults* and *Needle Tips*, essential online publications for healthcare professionals who provide vaccination services.

Visit the Immunization Action Coalition's website often! www.immunize.org

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Vaccine Highlights

Recommendations, schedules, and more

Editor's note: The information in "Vaccine Highlights" is current as of February 9, 2010.

CDC information

On Jan. 15, CDC published "Recommended Adult Immunization Schedule-U.S., 2010." Issued jointly by ACIP, AAFP, ACOG, and ACP, it is available at www.cdc.gov/vaccines/recs/schedules/adult-schedule. htm. Vaccinate Adults has a reformatted version on pages 4–6. For detailed information on how the 2010 immunization schedule differs from the 2009 schedule, see the first question in Ask the Experts on page 1 of this issue of Vaccinate Adults.

To learn about or order IAC's laminated 6-page color version of the adult immunization schedule, go to www. immunize.org/shop/schedule_adult.asp.

On Jan. 8, CDC published "Recommended Immunization Schedules for Persons Aged 0 Through 18 Years-U.S., 2010." Issued jointly by ACIP, AAP, and AAFP, it is available at www.cdc.gov/vaccines/recs/schedules/ child-schedule.htm.

To learn about or order IAC's laminated 6-page color version of the child/teen schedule, go to www.immunize.org/shop/schedule_child.asp.

On Feb. 2, CDC's Health Alert Network (HAN) issued a HAN Info Service Message notifying clinicians about the shortened shelf life of certain lots of sanofi pasteur's monovalent 2009 H1N1 vaccine in prefilled syringes. The affected lots have a shorter expiration period than is indicated on the label and should be used by Feb. 15, 2010, regardless of the expiration imprinted on the package. This will ensure the vaccine is used while it remains within its potency specifications. These lots pose no safety concerns, and people who have received vaccine from these lots do not need to take any action. To read the HAN announcement, which includes a table of affected lots, go to www.cdc.gov/H1N1flu/HAN/020210.htm.

On Jan. 29, CDC's Health Alert Network (HAN) issued a CDC Health Update announcing that sanofi pasteur had voluntarily recalled 5 lots of its single-dose prefilled syringe pediatric (0.25 mL) H1N1 influenza vaccine and 1 lot of single-dose pre-filled syringe H1N1 influenza vaccine for older children and adults (0.5 mL). The potency of these lots had fallen below pre-specified limits. These lots pose no safety concerns, and CDC and FDA agree there is no reason to revaccinate people who have received vaccine from these lots. To read the HAN announcement, go to www2a.cdc.gov/HAN/ ArchiveSys/ViewMsgV.asp?AlertNum=00306.

On Dec. 23, 2009, CDC's Health Alert Network (HAN) issued a CDC Health Update announcing that MedImmune had notified CDC that it was voluntarily recalling 13 lots of its monovalent 2009 (H1N1) nasal-spray vaccine. The potency of the 13 lots had decreased. These lots pose no safety concerns. CDC and FDA agree there is no need to revaccinate people who have received vaccine from these lots. To read the HAN announcement, go to http://www2a.cdc.gov/HAN/ArchiveSys/ ViewMsgV.asp?AlertNum=00304.

Other news

On Dec. 23, 2009, FDA approved FluZone High-Dose (sanofi pasteur), an inactivated influenza virus vaccine for people ages 65 years and older to prevent disease caused by influenza virus subtypes A and B. To access the package insert, go to www.fda.gov/downloads/ BiologicsBloodVaccines/Vaccines/ApprovedProducts/ UCM195479.pdf.

The Pennsylvania Department of Health and several Pennsylvania immunization coalitions collaborated to produce two public service announcements (PSAs) about adult immunization. One PSA has a 2-minute run time; the run time of the other is 17 minutes. The PSAs feature Paul Offit, MD, of the Vaccine Education Center at Children's Hospital of Philadelphia, and Everette James, secretary, Pennsylvania Department of Health. To access the PSAs, go to www.immunizepa.org/projects/details.php?id=119.

Current VIS dates

The use of most Vaccine Information Statements (VISs) is mandated by federal law. Listed below are the dates of the most current VISs. Check your stock of VISs against this list. If you have outdated VISs, print current ones from one of these sources: CDC's website at www.cdc.gov/vaccines/pubs/vis (has VISs in English) or IAC's website at www. immunize.org/vis (has VISs in more than 30 languages).

DTaP/DT/DTP5/17/07	MMR3/13/08
Hepatitis A3/21/06	PCV12/9/08
Hepatitis B7/18/07	PPSV10/6/09
Hib12/16/98	Polio1/1/00
HPV (H. papillomavirus)2/2/07	Rabies10/6/09
H1N1 (inactivated)10/2/09	Rotavirus 8/28/08
H1N1 (LAIV)10/2/09	Shingles10/6/09
Influenza (LAIV)8/11/09	Td/Tdap11/18/08
Influenza (TIV)8/11/09	Typhoid5/19/04
Japan. enceph5/11/05	Varicella3/13/08
Meningococcal 1/28/08	Yellow fever 11/9/04
Multi-vaccine VIS	S9/18/08

(for 6 vaccines given to infants/children: DTaP, IPV, Hib, HepB, PCV, RV)

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Recommended Adult Immunization Schedule – United States, 2010

Note: These recommendations <u>must</u> be read with the footnotes that follow, which contain the number of doses, intervals between doses, and other important information.

Figure 1. Recommended adult immunization schedule, by vaccine and age group

Vaccine ▼ Age group ►	19–26 years	27–49 years	50–59 years	60–64 years	≥65 years
Tetanus, diphtheria, pertussis (Td/Tdap) ^{1,*}	Substitute o	ne-time dose of Tdap for Td	booster; then boost with Td	every 10 yrs	Td booster every 10 yrs
Human papillomavirus (HPV) ^{2,*}	3 doses (females)				
Varicella ^{3,*}			2 doses		
Zoster ⁴			1 dose		
Measles, mumps, rubella (MMR) ^{5,*}	1 or 2 doses		1 dose		
Influenza ^{6,*}			1 dose annually		
Pneumococcal (polysaccharide) ^{7,8}		1 or 2	doses		1 dose
Hepatitis A ^{9,*}			2 doses		
Hepatitis B ^{10,*}			3 doses		
Meningococcal ^{11,*}			1 or more doses		

^{*}Covered by the Vaccine Injury Compensation Program.

Figure 2. Vaccines that might be indicated for adults based on medical and other indications

Indication ▶		Immunocom- promising conditions (excluding human immuno-	HIV infect		Diabetes, heart disease, chronic lung disease,	Asplenia ¹³ (including elective splenectomy and persistent complement		Kidney failure, end-stage renal disease,	
Vaccine ▼	Pregnancy	deficiency virus [HIV]) ^{3-5,12}	<200 cells/ µL	≥200 cells/ µL	chronic alcoholism	component deficiencies)	Chronic liver disease	receipt of hemodialysis	Healthcare personnel
Tetanus, diphtheria, pertussis (Td/Tdap) ^{1,*}	Td		Substitu	te one-time	dose of Tdap fo	r Td booster; the	n boost with Td ev	very 10 yrs	
Human papillomavirus (HPV) ^{2,*}					3 doses fo	r females through	age 26 yrs		
Varicella ^{3,*}	Co	ontraindicated					2 doses		
Zoster ⁴	С	ontraindicated					1 dose		
Measles, mumps, rubella (MMR) ^{5,*}	С	I ontraindicated					1 or 2 doses		
Influenza ^{6,*}				1 0	lose TIV annuall	у			1 dose TIV or LAIV annually
Pneumococcal (polysaccharide) ^{7,8}					1 or 2	2 doses			
Hepatitis A ^{9,*}					2 d	oses			
Hepatitis B ^{10,*}					3 d	oses			
Meningococcal ^{11,*}					1 or mo	ore doses		_	

^{*}Covered by the Vaccine Injury Compensation Program.

For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly indicated for adults ages19 years and older, as of January 1, 2010. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. For detailed recommendations on all vaccines, including those used primarily for travelers or that are issued during the year, consult the manufacturers' package inserts and the complete statements from the Advisory Committee on Immunization Practices (www.cdc.gov/vaccines/pubs/acip-list.htm).

Footnotes

For complete statements by the Advisory Committee on Immunization Practices (ACIP), visit www.cdc.gov/vaccines/pubs/acip-list.htm

1. Tetanus, diphtheria, and acellular pertussis (Td/Tdap) vaccination. Tdap should replace a single dose of Td for adults ages 19 through 64 years who have not received a dose of Tdap previously.

Adults with uncertain or incomplete history of primary vaccination series with tetanus and diphtheria toxoid-containing vaccines should begin or complete a primary vaccination series. A primary series for adults is 3 doses of tetanus and diphtheria toxoid-containing vaccines; give the first 2 doses at least 4 weeks apart and the third dose 6–12 months after the second; Tdap can substitute for any one of the doses of Td in the 3-dose primary series. The booster dose of tetanus and diphtheria toxoid-containing vaccine should be given to adults who have completed a primary series and if the last vaccination was received 10 or more years previously. Tdap or Td vaccine may be used, as indicated.

If a woman is pregnant and received the last Td vaccination 10 or more years previously, give Td during the second or third trimester. If the woman received the last Td vaccination less than 10 years previously, give Tdap during the immediate postpartum period. A dose of Tdap is recommended for postpartum women, close contacts of infants younger than age 12 months, and all healthcare personnel with direct patient contact if they have not previously received Tdap. An interval as short as 2 years from the last Td vaccination is suggested; shorter intervals can be used. Td may be deferred during pregnancy and Tdap substituted in the immediate postpartum period, or Tdap can be given instead of Td to a pregnant woman.

Consult the ACIP statement for recommendations for giving Td as prophylaxis in wound management.

2. Human papillomavirus (HPV) vaccination. HPV vaccination is recommended at age 11 or 12 years with catch-up vaccination at ages 13 through 26 years.

Ideally, vaccine should be given before potential exposure to HPV through sexual activity; however, females who are sexually active should still be vaccinated consistent with age-based recommendations. Sexually active females who have not been infected with any of the four HPV vaccine types (types 6, 11, 16, 18, all of which HPV4 prevents) or any of the two HPV vaccine types (types 16, 18, both of which HPV2 prevents) receive the full benefit of the vaccination. Vaccination is less beneficial for females who have already been infected with one or more of the HPV vaccine types. HPV4 or HPV2 can be given to persons with a history of genital warts, abnormal Papanicolaou test, or positive HPV DNA test, because these conditions are not evidence of prior infection with all vaccine HPV types.

HPV4 may be given to males ages 9 through 26 years to reduce their likelihood of acquiring genital warts. HPV4 would be most effective when given before exposure to HPV through sexual contact.

A complete series for either HPV4 or HPV2 consists of 3 doses. The second dose should be given 1 to 2 months after the first dose; the third dose should be given 6 months after the first dose.

Although HPV vaccination is not specifically recommended for persons with the medical indications described in Figure 2, "Vaccines that might be indicated for adults based on medical and other indications," it may be given to these persons because the HPV vaccine is not a live-virus vaccine. However, the immune response and vaccine efficacy might be less for persons with the medical indications described in Figure 2 than in persons who do not have the medical indications described or who are immunocompetent. Healthcare personnel are not at increased risk because of occupational exposure and should be vaccinated consistent with age-based recommendations.

3. Varicella vaccination. All adults without evidence of immunity to varicella should receive 2 doses of single-antigen varicella vaccine if not previously vaccinated or the second dose if they have received only 1 dose, unless they have a medical contraindication. Special consideration should be given to those who 1) have close contact with persons at high risk for severe disease (e.g., healthcare personnel and family contacts of persons with immunocompromising conditions) or 2) are at high risk for exposure or transmission (e.g., teachers; child-care employees; residents and staff members of institutional settings, including correctional institutions; college students; military personnel; adolescents and adults living in households with children; nonpregnant women of childbearing age; and international travelers).

Evidence of immunity to varicella in adults includes any of the following: 1) documentation of 2 doses of varicella vaccine at least 4 weeks apart; 2) U.S.-born before 1980 (although for healthcare personnel and pregnant women, birth before 1980 should not be considered evidence of immunity); 3) history of varicella based on diagnosis or verification of varicella by a healthcare provider (for a patient reporting a history of or having an atypical case, a mild case, or both, healthcare providers should seek either

an epidemiologic link with a typical varicella case or to a laboratory-confirmed case or evidence of laboratory confirmation, if it was performed at the time of acute disease); 4) history of herpes zoster based on diagnosis or verification of herpes zoster by a healthcare provider; or 5) laboratory evidence of immunity or laboratory confirmation of disease.

Pregnant women should be assessed for evidence of varicella immunity. Women who do not have evidence of immunity should receive the first dose of varicella vaccine upon completion or termination of pregnancy and before discharge from the healthcare facility. The second dose should be given 4–8 weeks after the first dose.

- **4.** Herpes zoster vaccination. A single dose of zoster vaccine is recommended for adults ages 60 years and older regardless of whether they report a prior episode of herpes zoster. Persons with chronic medical conditions may be vaccinated unless their condition constitutes a contraindication.
- **5. Measles, mumps, rubella (MMR) vaccination.** Adults born before 1957 generally are considered immune to measles and mumps.

Measles component: Adults born during or after 1957 should receive 1 or more doses of MMR vaccine unless they have 1) a medical contraindication; 2) documentation of vaccination with 1 or more doses of MMR vaccine; 3) laboratory evidence of immunity; or 4) documentation of physician-diagnosed measles. A second dose of MMR vaccine, given 4 weeks after the first dose, is recommended for adults who 1) have been recently exposed to measles or are in an outbreak setting; 2) have been vaccinated previously with killed measles vaccine; 3) have been vaccinated with an unknown type of measles vaccine during 1963–1967; 4) are students in postsecondary educational institutions; 5) work in a healthcare facility; or 6) plan to travel internationally.

Mumps component: Adults born during or after 1957 should receive 1 dose of MMR vaccine unless they have 1) a medical contraindication; 2) documentation of vaccination with 1 or more doses of MMR vaccine; 3) laboratory evidence of immunity; or 4) documentation of physician-diagnosed mumps. A second dose of MMR vaccine, given 4 weeks after the first dose, is recommended for adults who 1) live in a community experiencing a mumps outbreak and are in an affected age group; 2) are students in postsecondary educational institutions; 3) work in a healthcare facility; or 4) plan to travel internationally.

Rubella component: 1 dose of MMR vaccine is recommended for women who do not have documentation of rubella vaccination, or who lack laboratory evidence of immunity. For women of childbearing age, regardless of birth year, rubella immunity should be determined and women should be counseled regarding congenital rubella syndrome. Women who do not have evidence of immunity should receive MMR vaccine upon completion or termination of pregnancy and before discharge from the healthcare facility.

Healthcare personnel born before 1957: For unvaccinated healthcare personnel born before 1957 who lack laboratory evidence of measles, mumps, and/or rubella immunity or laboratory confirmation of disease, healthcare facilities should consider vaccinating personnel with 2 doses of MMR vaccine at the appropriate interval (for measles and mumps) and 1 dose of MMR vaccine (for rubella), respectively. During outbreaks, healthcare facilities should recommend that unvaccinated healthcare personnel born before 1957, who lack laboratory evidence of measles, mumps, and/or rubella immunity or laboratory confirmation of disease, receive 2 doses of MMR vaccine during an outbreak of measles or mumps, and 1 dose during an outbreak of rubella. Complete information about evidence of immunity is available at www.cdc.gov/vaccines/recs/provisional/default.htm.

6. Seasonal Influenza vaccination: Vaccinate all persons age 50 years and older and any younger persons who would like to decrease their risk for influenza. Vaccinate persons ages 19 through 49 years with any of the following indications:

Medical: Chronic disorders of the cardiovascular or pulmonary systems, including asthma; chronic metabolic diseases (including diabetes mellitus); renal or hepatic dysfunction, hemoglobinopathies, or immunocompromising conditions (including immunocompromising conditions caused by medications or HIV); cognitive, neurologic, or neuromuscular disorders; and pregnancy during the influenza season. No data exist on the risk for severe or complicated influenza disease among persons with asplenia; however, influenza is a risk factor for secondary bacterial infections that can cause severe disease among persons with asplenia.

Occupational: All healthcare personnel, including those employed by long-term care and assisted-living facilities, and caregivers of children younger than age 5 years.

Footnotes (continued)

Other: Residents of nursing homes and other long-term care and assisted-living facilities; persons likely to transmit influenza to persons at high risk (e.g., in-home household contacts and caregivers of children younger than age 5 years, persons age 50 years and older, and persons of all ages with high-risk conditions).

Healthy, nonpregnant adults younger than age 50 years without high-risk medical conditions who are not contacts of severely immunocompromised persons in special-care units may receive either intranasally administered live, attenuated influenza vaccine (FluMist) or inactivated vaccine. Other persons should receive the inactivated vaccine.

7. Pneumococcal polysaccharide (PPSV) vaccination. Vaccinate all persons with the following indications: *Medical*: Chronic lung disease (including asthma); chronic cardiovascular diseases; diabetes mellitus; chronic liver diseases, cirrhosis; chronic alcoholism; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy [if elective splenectomy is planned, vaccinate at least 2 weeks before surgery]); immunocompromising conditions (including chronic renal failure or nephrotic syndrome); and cochlear implants and cerebrospinal fluid leaks. Vaccinate as close to HIV diagnosis as possible.

Other: Residents of nursing homes or long-term care facilities and persons who smoke cigarettes. Routine use of PPSV is not recommended for American Indian/Alaska Natives or persons younger than age 65 years unless they have underlying medical conditions that are PPSV indications. However, public health authorities may consider recommending PPSV for American Indians/Alaska Natives and persons ages 50 through 64 years who are living in areas in which the risk for invasive pneumococcal disease is increased.

- **8. Revaccination with PPSV.** One-time revaccination after 5 years is recommended for persons with chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy); and for persons with immunocompromising conditions. For persons age 65 years and older, one-time revaccination is recommended if they were vaccinated 5 or more years previously and were younger than age 65 years at the time of primary vaccination.
- 9. Hepatitis A (HepA) vaccination. Vaccinate persons with any of the following indications and any person seeking protection from hepatitis A virus (HAV) infection:

Behavioral: Men who have sex with men and persons who use injection drugs.

Occupational: Persons working with HAV-infected primates or with HAV in a research laboratory setting.

Medical: Persons with chronic liver disease and persons who receive clotting factor concentrates.

Other: Persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A (a list of countries is available at wwwn.cdc.gov/travel/contentdiseases.aspx).

Unvaccinated persons who anticipate close personal contact (e.g., household contact or regular babysitting) with an international adoptee from a country of high or intermediate endemicity during the first 60 days after arrival of the adoptee in the United States should consider vaccination. The first dose of the 2-dose hepatitis A vaccine series should be given as soon as adoption is planned, ideally 2 or more weeks before the arrival of the adoptee.

Single-antigen vaccine formulations should be given in a 2-dose schedule at either 0 and 6–12 months (Havrix), or 0 and 6–18 months (Vaqta). If the combined hepatitis A and hepatitis B vaccine (Twinrix) is used, give 3 doses at 0, 1, and 6 months; alternatively, a 4-dose schedule, given on days 0, 7, and 21 to 30 followed by a booster dose at month 12 may be used.

10. Hepatitis B (HepB) vaccination. Vaccinate persons with any of the following indications and any person seeking protection from hepatitis B virus (HBV) infection:

Behavioral: Sexually active persons who are not in a long-term, mutually monogamous relationship (e.g., persons with more than one sex partner during the previous 6 months); persons seeking evaluation or treatment for a sexually transmitted disease (STD); current

or recent injection-drug users; and men who have sex with men.

Occupational: Healthcare personnel and public-safety workers who are exposed to blood or other potentially infectious body fluids.

Medical: Persons with end-stage renal disease, including patients receiving hemodialysis; persons with HIV infection; and persons with chronic liver disease.

Other: Household contacts and sex partners of persons with chronic HBV infection; clients and staff members of institutions for persons with developmental disabilities; and international travelers to countries with high or intermediate prevalence of chronic HBV infection (a list of countries is available at wwwn.cdc.gov/travel/contentdiseases.aspx).

Hepatitis B vaccination is recommended for all adults in the following settings: STD treatment facilities; HIV testing and treatment facilities; facilities providing drug-abuse treatment and prevention services; healthcare settings targeting services to injection-drug users or men who have sex with men; correctional facilities; end-stage renal disease programs and facilities for chronic hemodialysis patients; and institutions and nonresidential daycare facilities for persons with developmental disabilities.

Give or complete a 3-dose series of hepatitis B vaccine to those persons not previously vaccinated. The second dose should be given 1 month after the first dose; the third dose should be given at least 2 months after the second dose (and at least 4 months after the first dose). If the combined hepatitis A and hepatitis B vaccine (Twinrix) is used, give 3 doses at 0, 1, and 6 months; alternatively, a 4-dose schedule, given on days 0, 7, and 21 to 30 followed by a booster dose at month 12 may be used.

Adult patients receiving hemodialysis or with other immunocompromising conditions should receive 1 dose of 40 μ g/mL (Recombivax HB) given on a 3-dose schedule or 2 doses of 20 μ g/mL (Engerix-B) given simultaneously on a 4-dose schedule at 0, 1, 2, and 6 months.

11. Meningococcal vaccination. Meningococcal vaccine should be given to persons with the following indications:

Medical: Adults with anatomic or functional asplenia, or persistent complement component deficiencies.

Other: First-year college students living in dormitories; microbiologists routinely exposed to isolates of Neisseria meningitidis; military recruits; and persons who travel to or live in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the "meningitis belt" of sub-Saharan Africa during the dry season [December through June]), particularly if their contact with local populations will be prolonged. Vaccination is required by the government of Saudi Arabia for all travelers to Mecca during the annual Hajj.

Meningococcal conjugate vaccine (MCV4) is preferred for adults with any of the preceding indications who are age 55 years or younger; meningococcal polysaccharide vaccine (MPSV4) is preferred for adults age 56 years and older. Revaccination with MCV4 after 5 years is recommended for adults previously vaccinated with MCV4 or MPSV4 who remain at increased risk for infection (e.g., adults with anatomic or functional asplenia). Persons whose only risk factor is living in on-campus housing are not recommended to receive an additional dose.

- 12. Immunocompromising conditions. Inactivated vaccines generally are acceptable (e.g., pneumococcal, meningococcal, influenza [inactivated influenza vaccine]) and live vaccines generally are avoided in persons with immune deficiencies or immunocompromising conditions. Information on specific conditions is available at www.cdc.gov/vaccines/pubs/acip-list.htm.
- 13. Selected conditions for which Haemophilus influenzae type b (Hib) vaccine may be used. Hib vaccine generally is not recommended for persons age 5 years and older. No efficacy data are available on which to base a recommendation concerning use of Hib vaccine for older children and adults. However, studies suggest good immunogenicity in patients who have sickle cell disease, leukemia, or HIV infection or who have had a splenectomy. Giving 1 dose of Hib vaccine to these high-risk persons who have not previously received Hib vaccine is not contraindicated.

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available at www.vaers.hhs.gov or by telephone, 800-822-7967.

Information on how to file a Vaccine Injury Compensation Program claim is available at www.hrsa.gov/vaccinecompensation or by telephone, 800-338-2382.To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, D.C. 20005; telephone, 202-357-6400.

Additional information about the vaccines in this schedule, extent of available data, and contraindications for vaccination is also available at www.cdc.gov/vaccines or from the CDC-INFO Contact Center at 800-CDC-INFO (800-232-4636) in English and Spanish, 24 hours a day, 7 days a week.

6 Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

Guide to Contraindications and Precautions to Commonly Used Vaccines in Adults

Vaccine	Contraindications	Precautions ¹
Tetanus, diphtheria, pertussis (Tdap) Tetanus, diphtheria (Td)	Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component For Tdap only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP/DTaP/Tdap	Moderate or severe acute illness with or without fever Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus toxoid-containing vaccine History of Arthus-type hypersensitivity reaction following a previous dose of tetanus and/or diphtheria toxoid-containing vaccine: defer vaccination until at least 10 years have elapsed since the previous dose For Tdap only: Progressive or unstable neurologic disorder, uncontrolled seizures or progressive encephalopathy: defer vaccination with Tdap until a treatment regimen has been established and the condition has stabilized. For Td only: Unstable neurologic condition.
Human papilloma- virus (HPV)	Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component	Moderate or severe acute illness with or without fever Pregnancy
Measles, mumps, rubella (MMR) ²	Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component Pregnancy Known severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy³; or patients with HIV infection who are severely immunocompromised)	Moderate or severe acute illness with or without fever Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product ⁴) History of thrombocytopenia or thrombocytopenic purpura
Varicella (Var) ²	Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component Substantial suppression of cellular immunity ⁴ Pregnancy	Moderate or severe acute illness with or without fever Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product ⁴) Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination, if possible; delay resumption of these antiviral drugs for 14 days after vaccination.
Influenza, injectable trivalent (TIV)	Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component, including egg protein	Moderate or severe acute illness with or without fever History of GBS within 6 wks of previous influenza vaccine
Influenza, live attenuated (LAIV) ²	Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component, including egg protein Pregnancy Known severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy³; or patients with HIV infection who are severely immunocompromised) Certain chronic medical conditions⁵	Moderate or severe acute illness with or without fever History of GBS within 6 wks of previous influenza vaccine Receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) 48 hours before vaccination. Avoid use of these antiviral drugs for 14 days after vaccination. Close contact with an immunosuppressed person when the person requires protective isolation
Pneumococcal polysaccharide (PPSV)	Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component	Moderate or severe acute illness with or without fever
Hepatitis A (HepA)	Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component	Moderate or severe acute illness with or without fever Pregnancy
Hepatitis B (HepB)	Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component	Moderate or severe acute illness with or without fever
Meningococcal, conjugate (MCV4) Meningococcal, poly- saccharide (MPSV4)	Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component	Moderate or severe acute illness with or without fever For MCV4 only: History of GBS (if not at extremely high risk for meningococcal disease)
Zoster (Zos)	Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component Substantial suppression of cellular immunity ⁴ Pregnancy	Moderate or severe acute illness with or without fever Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination, if possible; delay resumption of these antiviral drugs for 14 days after vaccination.

Footnotes

- 1. Events or conditions listed as precautions should be reviewed carefully. Benefits of and risks for administering a specific vaccine to a person under these circumstances should be considered. If the risk from the vaccine is believed to outweigh the benefit, the vaccine should not be administered. If the benefit of vaccination is believed to outweigh the risk, the vaccine should be administered.
- LAIV, MMR, and varicella vaccines can be administered on the same day. If not administered on the same day, these vaccines should be separated by at least 28 days.
- Substantially immunosuppressive steroid dose is considered to be 2 weeks or more of daily receipt of 20 mg or more (or 2 mg/kg body weight or more) of prednisone or equivalent.
- For details, see CDC. "General Recommendations on Immunization: Recommendations
 of the Advisory Committee on Immunization Practices (ACIP)" at www.cdc.gov/vaccines/
 pubs/acip-list.htm
- For details, see CDC. "Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP)" at www.cdc.gov/vaccines/pubs/ acip-list.htm.

www.immunize.org/catg.d/p3072.pdf • Item #P3072 (2/10)

Your name:	Date of birth:/	/	_Today's date:	/	/
	(mo.) (day)	(yr.)	(mo.)	(day)	(yr.)



Do I need any vaccinations today?

Many adults are behind on their vaccinations. This questionnaire will help you and your healthcare provider determine if you need any vaccinations today. Please check the boxes that apply to you.

Tnfluanza	vaccination
TUTILIENZA	vaccination

☐ I'd like to be vaccinated to avoid getting influenza and spreading it to others this season.
□ I am age 50 or older.
☐ I live with or provide care for a child younger than age 5.
☐ I am younger than age 50 and have an ongoing health problem, such as lung, heart, kidney, liver, or blood disease; diabetes; HIV/AIDS;
a disease that affects my immune system; a neurologic condition; or a health condition that may cause me to choke when I swallow.
☐ I live with or provide care for an adult age 50 or older or who has one of the health conditions described above.
☐ I live in a nursing home or chronic care facility.
☐ I am or will be pregnant during the influenza season.

Pneumococcal vaccination

- ☐ I am age 65 or older, and I have never had a pneumococcal shot.
- □ I am age 65 or older and had one pneumococcal shot when I was younger than age 65; it has been 5 years or more since that shot.
- ☐ I am younger than age 65, I have not been vaccinated against pneumococcal disease, and at least one of the following applies to me:
 - I smoke cigarettes.

☐ I am a healthcare worker.

- 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 have had an organ or bone marrow transplant.
- I have had my spleen removed, have had or will have a cochlear implant, or have leaking spinal fluid.

Tetanus-,	diphtheria-,	and pertussis	(whooping	cough)-containing	vaccination	(e.g.,	DTP,	DTaP,
Tdap, or 7	Γd)							

Ш	I am younger than age 65 and have not had a pertussis-containing vaccine as an adult.
	I have or will have close contact with a child younger than age 12 months and have not had a pertussis-containing vaccine as an adolescent
	or adult.
	I have not yet had at least 3 tetanus- and diphtheria-containing shots.
	I have had 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

☐ I have no idea if I ever received any tetanus- and diphtheria-containing shots in school, the military, or elsewhere.

Human papillomavirus vaccination

- ☐ I am a woman age 26 or younger and haven't completed a series of shots against human papillomavirus.
- ☐ I am a man age 26 or younger and want protection against genital warts.

Shingles (zoster) vaccination

☐ I am an adult age 60 or older and haven't had a shingles shot.

Note: Adults may need additional vaccinations, such as polio or others. Talk to your healthcare provider.

(continued on page 2)

Technical content reviewed by the Centers for Disease Control and Prevention, January 2010.

www.immunize.org/catg.d/p4036.pdf • Item #P4036 (1/10)

Hepatitis A vaccination ☐ I want to be vaccinated to avoid getting hepatitis A and spreading it to co ☐ I was vaccinated with hepatitis A vaccine in the past but never received ☐ I might have been exposed to the hepatitis A virus in the past 2 weeks. ☐ I am in one of the following risk groups, and I haven't completed the 2- • I travel in countries where hepatitis A is common. 1,2 • I have (or will have) contact with an adopted child within the first 60 days of their arrival from a country where hepatitis A is common. 2 • I am a man who has sex with men.	the second shot.
Hepatitis B vaccination ☐ I want to be vaccinated to avoid getting hepatitis B and spreading it to co ☐ I am age I 8 or younger and haven't completed the series of hepatitis B ☐ I was vaccinated with hepatitis B vaccine in the past but never complete ☐ I am in one of the following risk groups, and I haven't completed the series of I am sexually active and am not in a long-term, mutually monogamous relationship. • I am a man who has sex with men. • I am an immigrant, or my parents are immigrants from an area of the world where hepatitis B is common. • I live with or am a sex partner of a person with hepatitis B. • I have been diagnosed with a sexually transmitted disease. • I have been diagnosed with HIV.	shots. ed the full 3-dose series.
Measles-Mumps-Rubella (MMR) vaccination ☐ I was born in 1957 or later and never received an MMR shot. ☐ I am a woman thinking about a future pregnancy and do not know if I'n ☐ I am a healthcare worker, I do not have a history of measles or mumps ☐ I was born in 1957 or later, and I am included in one of the following gonly I shot. ′ I am entering college or a post—high school educational institution. ′ I had a blood test that shows I do not have immunity to measles, measured. ′ I travel internationally.	s, and I've had only one dose of MMR vaccine. roups for whom 2 MMR shots are recommended, but I have received
Chickenpox (varicella) vaccination ☐ I was born in 1980 or later and have never had chickenpox or the vacc ☐ I was born before 1980 and am either a healthcare worker or foreign but I may become pregnant and do not know if I've had chickenpox or the	oorn, and am not sure if I've had chickenpox or not.
Meningococcal vaccination ☐ I am age 18 or younger and haven't received a meningococcal shot. ☐ I am (or will be) a college freshman living in a dorm. ☐ I am traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling to an area of the world where meningococcal disease is a linear traveling tr	ved, or I have a persistent complement component deficiency.

 $\label{eq:local_problem} \text{I. Call your local travel clinic to find out if additional vaccines are recommended.}$

whose only risk factor is living in a college dormitory.

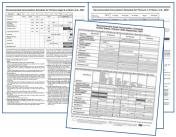
- 2. Countries where hepatitis A is common include all countries other than the U.S., Western Europe, Canada, Japan, Australia, and New Zealand.
- 3. Areas with high rates of hepatitis B include Africa, China, Korea, Southeast Asia including Indonesia and the Philippines, South and Western Pacific Islands, interior Amazon Basin, certain parts of the Caribbean (i.e., Haiti and the Dominican Republic), and the Middle East except Israel. Areas with moderate rates include South Central and Southwest Asia, Israel, Japan, Eastern and Southern Europe, Russia, and most of Central and South America.
- 4. Most adults from moderate- or high-risk areas of the world do not know their hepatitis B status. All patients from these areas need hepatitis B blood tests to determine if they have been previously infected. The first hepatitis B shot can be given during the same visit as the blood tests but only after the blood is drawn.

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Please review the recommendations for the use of the two human papillomavirus (HPV) vaccines, Cervarix (GSK) and Gardasil (Merck). What are the differences between them?

Cervarix is an inactivated bivalent vaccine (HPV2) that protects against HPV types 16 and 18. Gardasil is an inactivated quadrivalent vaccine (HPV4) that protects against HPV types 16 and 18, and also against types 6 and 11, which are human papillomaviruses that cause genital warts.

For prevention of cervical cancers and precancers, ACIP recommends that females ages 9 through 26 years be vaccinated with either Cervarix or Gardasil. To prevent genital warts, as well as cervical cancers and precancers, ACIP recommends vaccination with Gardasil. Gardasil may also be given to males ages 9 through 26 years to reduce their likelihood of acquiring genital warts.

Ideally, HPV vaccine should be administered before potential exposure to HPV through sexual contact. Therefore, for prevention of cervical cancers and precancers, ACIP recommends that females ages 11 or 12 years be routinely vaccinated with either Cervarix or Gardasil. HPV vaccination also is recommended for females ages 13 through 26 years who have not been previously vaccinated or who have not completed the full vaccination series. The vaccination series can be started in males and females beginning at age 9 years.

Both HPV vaccines are administered in a 3-dose schedule, with the second dose administered 1 to 2 months after the first dose and the third dose 6 months after the first dose. The minimum interval between the first and second doses of vaccine is 4 weeks. The minimum interval between the second and third doses of vaccine is 12 weeks. The minimum interval between the first and third doses is 24 weeks.

Whenever possible, use the same brand of HPV vaccine for all doses in the series. In situations when that's not possible, use the second HPV brand to complete the series. A total of 3 doses of HPV vaccine (either of a single brand or of a combination of brands) completes the series. Do not start the series over again. If fewer than 3 doses of Gardasil are received, protection against HPV types 6 and 11 may not be adequate.

Read the ACIP's provisional recommendations www.cdc.gov/vaccines/recs/provisional/ downloads/hpv-vac-dec2009-508.pdf.

What are the recommendations for using Gardasil to prevent genital warts in males?

ACIP's provisional recommendations state: "The 3-dose series of quadrivalent HPV vaccine may be given to males aged 9 through 26 years to reduce their likelihood of acquiring genital warts." The schedule and minimum intervals are the same as for females. See the question and answer above for details.

Please describe the recommendations for the use of the Japanese encephalitis (JE) vaccine Ixiaro (Intercell Biomedical).

FDA licensed Ixiaro in March 2009. The other U.S.-licensed vaccine, JE-VAX, available in the U.S. since 1992, is no longer being manufactured, but existing supplies are still available for children ages 1 through 16 years who are at risk for exposure to Japanese encephalitis.

Ixiaro is indicated for the prevention of disease caused by Japanese encephalitis virus (JEV) in people age 17 years and older. People for whom Ixiaro vaccination is indicated (i.e., travelers age 17 and older who plan to spend a month or longer in endemic areas during the JEV transmission season) should receive 2 doses administered IM 28 days apart. The series should be completed at least 1 week prior to potential exposure to JEV. No data exist on the interchangeability of JE-VAX and Ixiaro. People age 17 and older who have received 1 or 2 doses of JE-VAX in the past should receive a full series of 2 doses of Ixiaro (separated by at least 28 days) if they are still at risk of exposure to Japanese encephalitis.

To access the provisional recommendations for the use of JE vaccine, go to www.cdc.gov/vaccines/ recs/provisional/downloads/je-july2009-508.pdf.

The Ixiaro package insert is located at www. fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM142570.pdf.

Information about the 1993 recommendations for use of JE-VAX is available at www.cdc.gov/ mmwr/pdf/rr/rr4201.pdf.

What's new regarding yellow fever vaccination recommendations?

On December 9, 2009, CDC posted provisional recommendations for use of yellow fever (YF) vaccine. The provisional recommendations include two new contraindications and one new precaution to YF vaccination.

YF vaccine is now contraindicated for people

whose immunologic response is either suppressed or modulated by current or recent radiation therapy or drugs, and for people with thymus disorders associated with abnormal immune cell function, such as thymomas.

Being age 60 years or older years is now a precaution for YF vaccine administration, especially for people who have not previously received YF vaccine.

To access the yellow fever vaccine provisional recommendations, go to www.cdc.gov/vaccines/recs/ provisional/downloads/yf-vac-dec-2009-508.pdf.

Is CDC planning to release any new or updated VISs in the near future?

On October 6, 2009, CDC released three new VISs, one for PPSV, one for zoster vaccine, and one for rabies. New and updated VISs that will likely be available within the next few months include measles-mumps-rubella-varicella (MMRV), human papillomavirus (HPV), Japanese encephalitis, yellow fever, anthrax, and pneumococcal conjugate vaccine (PCV). You can find the latest news about VIS changes on CDC's web page at www.cdc.gov/ vaccines/pubs/vis/vis-news.htm.

All English-language VISs, as well as their translations in more than 30 languages are available on IAC's website at www.immunize.org/vis. In addition, IAC always informs IAC Express subscribers about new and revised VISs as soon as they are released. To subscribe to IAC Express, go to www. immunize.org/subscribe.

Is enough H1N1 influenza vaccine available now to start vaccinating people who are not in one of the targeted high-risk groups?

Supplies of vaccines that protect against the 2009 H1N1 virus are increasing. In areas where health department jurisdictions recommend it, providers can give 2009 H1N1 vaccine to anyone who wants it. Most states already allow this, and CDC is encouraging people who have been waiting to receive the 2009 H1N1 vaccine to get vaccinated now.

Vaccinate Adults correction policy

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