



2015-2016 Updates Influenza & Adult Vaccines

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www.publichealth.lacounty.gov/ip

Objectives:



1. Describe two configurations used to interpret the immunization recommendations on the 2015 adult schedule by the Advisory Committee on Immunization Practices (ACIP).
2. List 3 vaccines recommended by ACIP for adults.
3. Identify high-risk persons who should be immunized with flu vaccine every year.
4. List one important reason pregnant women are recommended to receive the ***flu shot*** annually.
5. State the importance of annual flu vaccination for health care personnel (HCP) working in Los Angeles County.
6. Identify the contraindications and precautions associated with flu vaccination.

Adult Vaccines available in the DPH Health Centers

- Influenza (Flu)
- Tetanus, diphtheria, and *acellular* pertussis (Td/Tdap)
- Varicella (Chickenpox)
- Human papillomavirus (HPV)
- Zoster vaccination (Shingles)
- Measles, mumps, rubella (MMR)
- Pneumococcal 13-valent conjugate (PCV13)
- Meningococcal Conjugate (MCV4)
- Hepatitis A (Hep A)
- Hepatitis B (Hep B)

CDC – Adult Immunization Schedules, U.S., 2015

<http://www.cdc.gov/vaccines/schedules/hcp/adult.html>

DPH Health Centers

<http://www.publichealth.lacounty.gov/locator.htm#a>

GET PROTECTED
FREE or LOW COST

Vaccines for Adults
Uninsured and under insured

VACCINES AVAILABLE:

- Hepatitis A**
- Hepatitis B**
- HPV** (human papilloma virus)
- Pneumococcal Conjugate** (pneumonia)
- Meningococcal Conjugate** (meningitis)
- Tdap** (tetanus, diphtheria and pertussis - commonly known as whooping cough)
- Varicella** (chicken pox)
- Zoster** (shingles)
- Flu** (influenza)

Call your regular health care provider to learn what other shots you may need. If you don't have a regular doctor, call 2-1-1 for a list of no-cost or low-cost vaccine providers.

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*Offer valid while supplies last

Available at the following Los Angeles County Department of Public Health Immunization Clinics.

Antelope Valley Health Center 335-B East Avenue K6 Lancaster, CA 93535 (661) 723-4526	Hollywood Wilshire Health Center 5205 Melrose Ave Los Angeles, CA 90038 (323) 769-7800
Glendale Health Center 501 N. Glendale Ave Glendale, CA 91206 (818) 500-5762	MLK Jr Center for Public Health 11833 S. Wilmington Ave Los Angeles, CA 90059 (323) 568-8729
Pacoima Health Center 13300 Van Nuys Blvd. Pacoima, CA 91331 (818) 896-1903	Whittier Health Center 7643 S. Painter Ave Whittier, CA 90602 (562) 464-5350
Monrovia Health Center 330 W. Maple Ave Monrovia, CA 91016 (626) 256-1600	Curtis Tucker Health Center 123 W. Manchester Ave Inglewood, CA 90301 (310) 419-5325
Pomona Health Center 750 S. Park Ave Pomona, CA 91766 (909) 868-0235	Torrance Health Center 711 Del Amo Blvd. Torrance, CA 90502 (310) 354-2300
Central Health Center 241 N. Figueroa Street Los Angeles, CA 90012 (213) 240-8204	



Recommended Adult Immunization Schedule—United States - 2015

Note: These recommendations must be read with the footnotes that follow containing number of doses, intervals between doses, and other important information.

Figure 1. Recommended adult immunization schedule, by vaccine and age group¹

VACCINE ▼	AGE GROUP ►	19-21 years	22-26 years	27-49 years	50-59 years	60-64 years	≥ 65 years
Influenza ^{*2}		1 dose annually					
Tetanus, diphtheria, pertussis (Td/Tdap) ^{*3}		Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs					
Varicella ^{*4}		2 doses					
Human papillomavirus (HPV) Female ^{*5}		3 doses					
Human papillomavirus (HPV) Male ^{*5}		3 doses					
Zoster ⁶						1 dose	
Measles, mumps, rubella (MMR) ^{*7}		1 or 2 doses					
Pneumococcal 13-valent conjugate (PCV13) ^{*8}		1-time dose					
Pneumococcal polysaccharide (PPSV23) ⁸		1 or 2 doses					1 dose
Meningococcal ^{*9}		1 or more doses					
Hepatitis A ^{*10}		2 doses					
Hepatitis B ^{*11}		3 doses					
<i>Haemophilus influenzae</i> type b (Hib) ^{*12}		1 or 3 doses					

*Covered by the Vaccine Injury Compensation Program

	For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection; zoster vaccine recommended regardless of prior episode of zoster
	Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indication)
	No recommendation

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, 8:00 a.m. - 8:00 p.m. Eastern Time, Monday - Friday, excluding holidays.

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.

The recommendations in this schedule were approved by the Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP), the American Academy of Family Physicians (AAFP), the American College of Physicians (ACP), American College of Obstetricians and Gynecologists (ACOG) and American College of Nurse-Midwives (ACNM).

Figure 2. Vaccines that might be indicated for adults based on medical and other indications¹

VACCINE ▼	INDICATION ►	Pregnancy	Immunocompromising conditions (excluding human immunodeficiency virus [HIV]) ^{4,6,7,8,13}	HIV infection CD4+ T lymphocyte count ^{4,6,7,8,13}		Men who have sex with men (MSM)	Kidney failure, end-stage renal disease, receipt of hemodialysis	Heart disease, chronic lung disease, chronic alcoholism	Asplenia (including elective splenectomy and persistent complement component deficiencies) ^{8,12}	Chronic liver disease	Diabetes	Healthcare personnel	
				< 200 cells/μL	≥ 200 cells/μL								
Influenza ^{*2}			1 dose IIV annually			1 dose IIV or LAIV annually	1 dose IIV annually					1 dose IIV or LAIV annually	
Tetanus, diphtheria, pertussis (Td/Tdap) ^{*3}	1 dose Tdap each pregnancy	Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs											
Varicella ^{*4}		Contraindicated			2 doses								
Human papillomavirus (HPV) Female ^{*5}		3 doses through age 26 yrs					3 doses through age 26 yrs						
Human papillomavirus (HPV) Male ^{*5}		3 doses through age 26yrs						3 doses through age 21 yrs					
Zoster ⁶		Contraindicated				1 dose							
Measles, mumps, rubella (MMR) ^{*7}		Contraindicated			1 or 2 doses								
Pneumococcal 13-valent conjugate (PCV13) ^{*8}							1 dose						
Pneumococcal polysaccharide (PPSV23) ⁸							1 or 2 doses						
Meningococcal ^{*9}								1 or more doses					
Hepatitis A ^{*10}								2 doses					
Hepatitis B ^{*11}					3 doses								
<i>Haemophilus influenzae</i> type b (Hib) ^{*12}		post-HSCT recipients only							1 or 3 doses				

*Covered by the Vaccine Injury Compensation Program

- For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection; zoster vaccine recommended regardless of prior episode of zoster
- Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)
- No recommendation

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly recommended for adults ages 19 years and older, as of February 1, 2015. For all vaccines being recommended on the Adult Immunization Schedule: a vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. 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/hcp/acip-recs/index.html). 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.



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



Footnotes—Recommended Immunization Schedule for Adults Aged 19 Years or Older: United States, 2015

1. Additional information

- Additional guidance for the use of the vaccines described in this supplement is available at www.cdc.gov/vaccines/hcp/acip-recs/index.html.
- Information on vaccination recommendations when vaccination status is unknown and other general immunization information can be found in the General Recommendations on Immunization at www.cdc.gov/mmwr/preview/mmwrhtml/mm6021a1.htm.
- Information on travel vaccine requirements and recommendations (e.g., for hepatitis A and B, meningococcal, and other vaccines) is available at www.cdc.gov/travel/destinations/list.
- Additional information and resources regarding vaccination of pregnant women can be found at www.cdc.gov/vaccines/adults/rec-vac/pregnant.html.

2. Influenza vaccination

- Annual vaccination against influenza is recommended for all persons aged 6 months or older.
- Persons aged 6 months or older, including pregnant women and persons with hives-only allergy to eggs can receive the inactivated influenza vaccine (IIV). An age-appropriate IIV formulation should be used.
- Adults aged 18 years or older can receive the recombinant influenza vaccine (RIV) (Flublok). RIV does not contain any egg protein and can be given to age-appropriate persons with egg allergy of any severity.
- Healthy, nonpregnant persons aged 2 to 49 years without high-risk medical conditions can receive either intranasally administered live, attenuated influenza vaccine (LAIV) (FluMist) or IIV.
- Health care personnel who care for severely immunocompromised persons who require care in a protected environment should receive IIV or RIV; health care personnel who receive LAIV should avoid providing care for severely immunosuppressed persons for 7 days after vaccination.
- The intramuscular or intradermally administered IIV are options for adults aged 18 through 64 years.
- Adults aged 65 years or older can receive the standard-dose IIV or the high-dose IIV (Fluzone High-Dose).
- A list of currently available influenza vaccines can be found at www.cdc.gov/flu/protect/vaccine/vaccines.htm.

3. Tetanus, diphtheria, and acellular pertussis (Tdap/Td) vaccination

- Administer 1 dose of Tdap vaccine to pregnant women during each pregnancy (preferably during 27 to 36 weeks gestation) regardless of interval since prior Td/Tdap vaccination.
- Persons aged 11 years or older who have not received Tdap vaccine or for whom vaccine status is unknown should receive a dose of Tdap followed by tetanus and diphtheria toxoids (Td) booster doses every 10 years thereafter. Tdap can be administered regardless of interval since the most recent tetanus or diphtheria-toxoid containing vaccine.
- Adults with an unknown or incomplete history of completing a 3-dose primary vaccination series with Td-containing vaccines should begin or complete a primary vaccination series including a Tdap dose.
- For unvaccinated adults, administer the first 2 doses at least 1 week apart and the third dose 6 to 12 months after the second.
- For incompletely vaccinated (i.e., less than 3 doses) adults, administer remaining doses.
- Refer to the ACIP statement for recommendations for administering Td/Tdap as prophylaxis in wound management (see footnote 1).

4. Varicella vaccination

- All adults without evidence of immunity to varicella (as defined below) should receive 2 doses of single-antigen varicella vaccine or a second dose if they have received only 1 dose.
- Vaccination should be emphasized for those who have close contact with persons at high risk for severe disease (e.g., health care personnel and family contacts of persons with immunocompromising conditions) or 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).
- 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 health care facility. The second dose should be administered 4 to 8 weeks after the first dose.
- Evidence of immunity to varicella in adults includes any of the following:
 - documentation of 2 doses of varicella vaccine at least 4 weeks apart;
 - U.S.-born before 1980, except health care personnel and pregnant women; history of varicella based on diagnosis or verification of varicella disease by a health care provider;
 - history of herpes zoster based on diagnosis or verification of herpes zoster disease by a health care provider; or
 - laboratory evidence of immunity or laboratory confirmation of disease.

5. Human papillomavirus (HPV) vaccination

- Two vaccines are licensed for use in females, bivalent HPV vaccine (HPV2) and quadrivalent HPV vaccine (HPV4), and one HPV vaccine for use in males (HPV1).
- For females, either HPV4 or HPV2 is recommended in a 3-dose series for routine vaccination at age 11 or 12 years and for those aged 13 through 26 years, if not previously vaccinated.

- For males, HPV4 is recommended in a 3-dose series for routine vaccination at age 11 or 12 years and for those aged 13 through 21 years, if not previously vaccinated. Males aged 22 through 26 years may be vaccinated.
- HPV4 is recommended for men who have sex with men through age 26 years for those who did not get any or all doses when they were younger.
- Vaccination is recommended for immunocompromised persons (including those with HIV infection) through age 26 years for those who did not get any or all doses when they were younger.
- A complete series for either HPV4 or HPV2 consists of 3 doses. The second dose should be administered 4 to 8 weeks (minimum interval of 4 weeks) after the first dose; the third dose should be administered 24 weeks after the first dose and 16 weeks after the second dose (minimum interval of at least 12 weeks). HPV vaccines are not recommended for use in pregnant women. However, pregnancy testing is not needed before vaccination. If a woman is found to be pregnant after initiating the vaccination series, no intervention is needed; the remainder of the 3-dose series should be delayed until completion or termination of pregnancy.

6. Zoster vaccination

- A single dose of zoster vaccine is recommended for adults aged 60 years or older regardless of whether they report a prior episode of herpes zoster. Although the vaccine is licensed by the U.S. Food and Drug Administration for use among and can be administered to persons aged 50 years or older, ACIP recommends that vaccination begin at age 60 years.
- Persons aged 60 years or older with chronic medical conditions may be vaccinated unless their condition constitutes a contraindication, such as pregnancy or severe immunodeficiency.

7. Measles, mumps, rubella (MMR) vaccination

- Adults born before 1957 are generally considered immune to measles and mumps. All adults born in 1957 or later should have documentation of 1 or more doses of MMR vaccine unless they have a medical contraindication to the vaccine or laboratory evidence of immunity to each of the three diseases. Documentation of provider-diagnosed disease is not considered acceptable evidence of immunity for measles, mumps, or rubella.
- Measles component:**
 - A routine second dose of MMR vaccine, administered a minimum of 28 days after the first dose, is recommended for adults who:
 - are students in postsecondary educational institutions,
 - work in a health care facility, or
 - plan to travel internationally.
 - Persons who received inactivated (killed) measles vaccine or measles vaccine of unknown type during 1963–1967 should be revaccinated with 2 doses of MMR vaccine.
- Mumps component:**
 - A routine second dose of MMR vaccine, administered a minimum of 28 days after the first dose, is recommended for adults who:
 - are students in a postsecondary educational institution,
 - work in a health care facility, or
 - plan to travel internationally.
 - Persons vaccinated before 1979 with either killed mumps vaccine or mumps vaccine of unknown type who are at high risk for mumps infection (e.g., persons who are working in a health care facility) should be considered for revaccination with 2 doses of MMR vaccine.

Rubella component:

- For women of childbearing age, regardless of birth year, rubella immunity should be determined. If there is no evidence of immunity, women who are not pregnant should be vaccinated. Pregnant women who do not have evidence of immunity should receive MMR vaccine upon completion or termination of pregnancy and before discharge from the health care facility.

Health care personnel born before 1957:

- For unvaccinated health care personnel born before 1957 who lack laboratory evidence of measles, mumps, and/or rubella immunity or laboratory confirmation of disease, health care facilities should consider vaccinating personnel with 2 doses of MMR vaccine at the appropriate interval for measles and mumps or 1 dose of MMR vaccine for rubella.

8. Pneumococcal (13-valent pneumococcal conjugate vaccine [PCV13] and 23-valent pneumococcal polysaccharide vaccine [PPSV23]) vaccination

- General information**
 - When indicated, only a single dose of PCV13 is recommended for adults.
 - No additional dose of PPSV23 is indicated for adults vaccinated with PPSV23 at or after age 65 years.
 - When both PCV13 and PPSV23 are indicated, PCV13 should be administered first; PCV13 and PPSV23 should not be administered during the same visit.
 - When indicated, PCV13 and PPSV23 should be administered to adults whose pneumococcal vaccination history is incomplete or unknown.
- Adults aged 65 years or older who:
 - Have not received PCV13 or PPSV23: Administer PCV13 followed by PPSV23 in 6 to 12 months.
 - Have not received PCV13 but have received a dose of PPSV23 at age 65 years or older: Administer PCV13 at least 1 year after the dose of PPSV23 received at age 65 years or older.

Footnotes—Recommended Immunization Schedule for Adults Aged 19 Years or Older: United States, 2015

8. Pneumococcal vaccination (continued)

- Have not received PCV13 but have received 1 or more doses of PPSV23 before age 65: Administer PCV13 at least 1 year after the most recent dose of PPSV23; administer a dose of PPSV23 6 to 12 months after PCV13, or as soon as possible if this time window has passed, and at least 5 years after the most recent dose of PPSV23.
- Have received PCV13 but not PPSV23 before age 65 years: Administer PPSV23 6 to 12 months after PCV13 or as soon as possible if this time window has passed.
- Have received PCV13 and 1 or more doses of PPSV23 before age 65 years: Administer PPSV23 6 to 12 months after PCV13, or as soon as possible if this time window has passed, and at least 5 years after the most recent dose of PPSV23.
- Adults aged 19 through 64 years with immunocompromising conditions or anatomical or functional asplenia (defined below) who:
 - Have not received PCV13 or PPSV23: Administer PCV13 followed by PPSV23 at least 8 weeks after PCV13; administer a second dose of PPSV23 at least 5 years after the first dose of PPSV23.
 - Have not received PCV13 but have received 1 dose of PPSV23: Administer PCV13 at least 1 year after the PPSV23; administer a second dose of PPSV23 at least 8 weeks after PCV13 and at least 5 years after the first dose of PPSV23.
 - Have not received PCV13 but have received 2 doses of PPSV23: Administer PCV13 at least 1 year after the most recent dose of PPSV23.
 - Have received PCV13 but not PPSV23: Administer PPSV23 at least 8 weeks after PCV13; administer a second dose of PPSV23 at least 5 years after the first dose of PPSV23.
 - Have received PCV13 and 1 dose of PPSV23: Administer a second dose of PPSV23 at least 5 years after the first dose of PPSV23.
- Adults aged 19 through 64 years with cerebrospinal fluid leaks or cochlear implants: Administer PCV13 followed by PPSV23 at least 8 weeks after PCV13.
- Adults aged 19 through 64 years with chronic heart disease (including congestive heart failure and cardiomyopathies, excluding hypertension), chronic lung disease (including chronic obstructive lung disease, emphysema, and asthma), chronic liver disease (including cirrhosis), alcoholism, or diabetes mellitus: Administer PPSV23.
- Adults aged 19 through 64 years who smoke cigarettes or reside in nursing home or long-term care facilities: Administer PPSV23.
- Routine pneumococcal vaccination is not recommended for American Indian/Alaska Native or other adults unless they have the indications as above; however, public health authorities may consider recommending the use of pneumococcal vaccines for American Indians/Alaska Natives or other adults who live in areas with increased risk for invasive pneumococcal disease.
- Immunocompromising conditions that are indications for pneumococcal vaccination are: Congenital or acquired immunodeficiency (including B- or T-lymphocyte deficiency, complement deficiencies, and phagocytic disorders excluding chronic granulomatous disease), HIV infection, chronic renal failure, nephrotic syndrome, leukemia, lymphoma, Hodgkin disease, generalized malignancy, multiple myeloma, solid organ transplant, and iatrogenic immunosuppression (including long-term systemic corticosteroids and radiation therapy).
- Anatomical or functional asplenia that are indications for pneumococcal vaccination are: Sickle cell disease and other hemoglobinopathies, congenital or acquired asplenia, splenic dysfunction, and splenectomy. Administer pneumococcal vaccines at least 2 weeks before immunosuppressive therapy or an elective splenectomy, and as soon as possible to adults who are newly diagnosed with asymptomatic or symptomatic HIV infection.

9. Meningococcal vaccination

- Administer 2 doses of quadrivalent meningococcal conjugate vaccine (MenACWY [Menactra, Menveo]) at least 2 months apart to adults of all ages with anatomical or functional asplenia or persistent complement component deficiencies. HIV infection is not an indication for routine vaccination with MenACWY. If an HIV-infected person of any age is vaccinated, 2 doses of MenACWY should be administered at least 2 months apart.
- Administer a single dose of meningococcal vaccine to microbiologists routinely exposed to isolates of *Neisseria meningitidis*, military recruits, persons at risk during an outbreak attributable to a vaccine serogroup, and persons who travel to or live in countries in which meningococcal disease is hyperendemic or epidemic.
- First-year college students up through age 21 years who are living in residence halls should be vaccinated if they have not received a dose on or after their 16th birthday.
- MenACWY is preferred for adults with any of the preceding indications who are aged 55 years or younger as well as for adults aged 56 years or older who a) were vaccinated previously with MenACWY and are recommended for revaccination, or b) for whom multiple diseases are indicated. Meningococcal polysaccharide vaccine (MPSV4 [Menomune]) is preferred for adults aged 56 years or older who have not received MenACWY previously and who require a single dose only (e.g., travelers).
- Revaccination with MenACWY every 5 years is recommended for adults previously vaccinated with MenACWY or MPSV4 who remain at increased risk for infection (e.g., adults with anatomical or functional asplenia, persistent complement component deficiencies, or microbiologists).

10. Hepatitis A vaccination

- Vaccinate any person seeking protection from hepatitis A virus (HAV) infection and persons with any of the following indications:
 - men who have sex with men and persons who use injection or noninjection illicit drugs;
 - persons working with HAV-infected primates or with HAV in a research laboratory setting;
 - persons with chronic liver disease and persons who receive clotting factor concentrates;
 - persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A; and
 - unvaccinated persons who anticipate close personal contact (e.g., household or regular babysitting) with an international adoptee during the first 60 days after arrival in the United States from a country with high or intermediate endemicity. (See footnote 1 for more information on travel recommendations.) The first dose of the 2-dose hepatitis A vaccine series should be administered as soon as adoption is planned, ideally 2 or more weeks before the arrival of the adoptee.
- Single-antigen vaccine formulations should be administered in a 2-dose schedule at either 0 and 6 to 12 months (Havrix), 0 and 6 to 18 months (Vaqta). If the combined hepatitis A and hepatitis B vaccine (Twinnix) is used, administer 3 doses at 0, 1, and 6 months; alternatively, a 4-dose schedule may be used, administered on days 0, 7, and 21 to 30 followed by a booster dose at month 12.

11. Hepatitis B vaccination

- Vaccinate persons with any of the following indications and any person seeking protection from hepatitis B virus (HBV) infection:
 - sexually active persons who are not in a long-term, mutually monogamous relationship (e.g., persons with more than 1 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;
 - health care personnel and public safety workers who are potentially exposed to blood or other infectious body fluids;
 - persons with diabetes who are younger than age 60 years as soon as feasible after diagnosis; persons with diabetes who are age 60 years or older at the discretion of the treating clinician based on the likelihood of acquiring HBV infection, including the risk posed by an increased need for assisted blood glucose monitoring in long-term care facilities; the likelihood of experiencing chronic sequelae if infected with HBV, and the likelihood of immune response to vaccination;
 - persons with end-stage renal disease, including patients receiving hemodialysis, persons with HIV infection, and persons with chronic liver disease;
 - household contacts and sex partners of hepatitis B surface antigen-positive persons, 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; and
 - all adults in the following settings: STD treatment facilities, HIV testing and treatment facilities, facilities providing drug abuse treatment and prevention services, health care 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 day care facilities for persons with developmental disabilities.
- Adults missing doses to complete a 3-dose series of hepatitis B vaccine to those persons not vaccinated or not completely vaccinated. The second dose should be administered 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 (Twinnix) is used, give 3 doses at 0, 1, and 6 months; alternatively, a 4-dose Twinnix schedule, administered 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 mcg/mL (Recombinax HB) administered on a 3-dose schedule at 0, 1, and 6 months or 2 doses of 20 mcg/mL (Engerix-B) administered simultaneously on a 4-dose schedule at 0, 1, 2, and 6 months.

12. Haemophilus influenzae type b (Hib) vaccination

- One dose of Hib vaccine should be administered to persons who have anatomical or functional asplenia or sickle cell disease or are undergoing elective splenectomy if they have not previously received Hib vaccine. Hib vaccination 14 or more days before splenectomy is suggested.
- Recipients of a hematopoietic stem cell transplant (HSCT) should be vaccinated with a 3-dose regimen 6 to 12 months after a successful transplant, regardless of vaccination history; at least 4 weeks should separate doses.
- Hib vaccine is not recommended for adults with HIV infection since their risk for Hib infection is low.

13. Immunocompromising conditions

- Inactivated vaccines generally are acceptable (e.g., pneumococcal, meningococcal, and 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/hcp/acip-recs/index.html.

(Continued on next page)



TABLE. Contraindications and precautions to commonly used vaccines in adults ^{1,4}

Vaccine	Contraindications	Precautions
Influenza, inactivated (IV) ²	• Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine; or to a vaccine component, including egg protein	• Moderate or severe acute illness with or without fever • History of Guillain-Barré Syndrome within 6 weeks of previous Influenza vaccination • Adults who experience only hives with exposure to eggs may receive RIV or, with additional safety precautions, IV ³
Influenza, recombinant (RIV)	• Severe allergic reaction (e.g., anaphylaxis) after previous dose of RIV or to a vaccine component. RIV does not contain any egg protein ²	• Moderate or severe acute illness with or without fever • History of Guillain-Barré Syndrome within 6 weeks of previous Influenza vaccination
Influenza, live attenuated (LAIV) ^{2,3}	• Severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine, or to a previous dose of any influenza vaccine • In addition, ACP recommends that LAIV not be used in the following populations: — pregnant women — immunosuppressed adults — adults with egg allergy of any severity — adults who have taken influenza antiviral medications (amantadine, rimantadine, zanamivir, or oseltamivir) within the previous 48 hours; avoid use of these antiviral drugs for 14 days after vaccination	• Moderate or severe acute illness with or without fever • History of Guillain-Barré Syndrome within 6 weeks of previous Influenza vaccination • Asthma in persons aged 5 years and older • Other chronic medical conditions, e.g., other chronic lung diseases, chronic cardiovascular disease (excluding isolated hypertension), diabetes, chronic renal or hepatic disease, hematologic disease, neurologic disease, and metabolic disorders
Tetanus, diphtheria, pertussis (Tdap); tetanus, diphtheria (Td)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component • For pertussis-containing vaccines: encephalopathy (e.g., coma, decreased level of consciousness, or prolonged seizures) not attributable to another identifiable cause within 7 days of administration of a previous dose of Tdap, diphtheria and tetanus toxoids and pertussis (DTaP), or diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine	• Moderate or severe acute illness with or without fever • Guillain-Barré Syndrome within 6 weeks after a previous dose of tetanus toxoid-containing vaccine • History of Arthus-type hypersensitivity reactions after a previous dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus toxoid-containing vaccine • For pertussis-containing vaccines: progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized
Varicella ⁴	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component • Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy) ⁴ or patients with human immunodeficiency virus (HIV) infection who are severely immunocompromised • Pregnancy	• Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product) ⁴ • Moderate or severe acute illness with or without fever • Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; avoid use of these antiviral drugs for 14 days after vaccination
Human papillomavirus (HPV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever • Pregnancy
Zoster ⁴	• Severe allergic reaction (e.g., anaphylaxis) to a vaccine component • Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, or long-term immunosuppressive therapy) ⁴ or patients with HIV infection who are severely immunocompromised • Pregnancy	• Moderate or severe acute illness with or without fever • Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; avoid use of these antiviral drugs for 14 days after vaccination
Measles, mumps, rubella (MMR) ³	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component • Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy) ⁴ or patients with HIV infection who are severely immunocompromised • 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) ³ • History of thrombocytopenia or thrombocytopenic purpura • Need for tuberculin skin testing ³
Pneumococcal conjugate (PCV13)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component, including to any vaccine component containing diphtheria toxoid	• Moderate or severe acute illness with or without fever
Pneumococcal polysaccharide (PPSV23)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever
Meningococcal, conjugate (MenACWY); meningococcal, polysaccharide (MenPV4)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever
Hepatitis A	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever
Hepatitis B	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever
Haemophilus influenzae Type b (Hib)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever

1. Vaccine package inserts and the full ACP recommendations for these vaccines should be consulted for additional information on vaccine-related contraindications and precautions and for more information on vaccine recipients. 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. A contraindication is a condition in a recipient that increases the chance of a serious adverse reaction. Therefore, a vaccine should not be administered when a contraindication is present.

2. For more information on use of influenza vaccines among persons with egg allergies and a complete list of conditions that CDC considers to be reasons to avoid receiving LAIV, see CDC. Prevention and control of seasonal influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP) — United States, 2014–15 influenza season. *MMWR* 2014;63(32):691–97.

3. LAIV, MMR, varicella, or zoster vaccines can be administered on the same day. If not administered on the same day, live vaccines should be separated by at least 28 days.

4. Immunosuppressive steroid dose is considered to be ≥2 weeks of daily receipt of 20 mg of prednisone or the equivalent. Vaccination should be deferred for at least 1 month after discontinuation of such therapy. Providers should consult ACP recommendations for complete information on the use of specific live vaccines among persons on immune-suppressing medications or with immune suppression because of other reasons.

5. Vaccine should be deferred for the appropriate interval if replacement immune globulin products are being administered. See CDC. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 2011;60(No. RR-2). Available at www.cdc.gov/vaccines/pubs/pinkbook/index.html.

6. Measles vaccination might suppress tuberculin reactivity temporarily. Measles-containing vaccine may be administered on the same day as tuberculin skin testing. If testing cannot be performed until after the day of MMR vaccination, the test should be postponed for at least 4 weeks after the vaccination. If an urgent need exists to skin test, do so with the understanding that reactivity might be reduced by the vaccine.

* Adapted from CDC. Table 6. Contraindications and precautions to commonly used vaccines. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2011;60(No. RR-2):40–41 and from Atkinson W, Wolfe S, Hamborsky J, eds. Appendix A. Epidemiology and prevention of vaccine-preventable diseases. 12th ed. Washington, DC: Public Health Foundation, 2011. Available at www.cdc.gov/vaccines/pubs/pinkbook/index.html.

* Regarding latex allergy, consult the package insert for any vaccine administered.





Influenza Disease



Flu



- Incubation period **2 days (range 1-4 days)**; virus is shed in the secretions for 5 – 10 days.
- Characterized by the ***abrupt onset*** of fever, myalgia, sore throat, nonproductive cough, and headache.
- Fever of 101°–102°F; bedridden
- Only 50% infected with the virus will develop symptoms.

Common Cold

- Rhinovirus, most common type of virus that causes colds.
- Symptoms include: runny nose, sore throat, sneezing, and coughing, watery eyes, headache, mild body aches and these symptoms can last for up to 2 weeks.
- Over 200 viruses can cause the common cold.

Flu is Contagious

- Most healthy adults may infect others beginning 1 day **before** symptoms develop and up to 5 to 7 days **after** becoming sick.
- Children may spread the virus for longer than 7 days.
 - Symptoms start 1 to 4 days after the virus enters the body.
That means that you may be able to “spread” the flu to someone else before you know you are sick, as well as while you are sick.
- Some persons can be infected with the flu virus but have **no** symptoms.
 - During this time, those persons may still spread the virus to others.

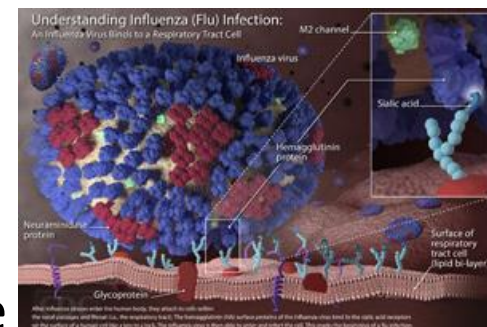


Complications of Flu.....

- Bacterial pneumonia
 - *invasive pneumococcal disease*
- Ear infections
- Sinus infections
- Dehydration
- Worsening of chronic medical conditions
 - such as congestive heart failure, asthma, or diabetes

Flu Vaccine Composition for the 2015–2016 Season

- U.S.- Licensed trivalent influenza vaccines will contain:
 - A/California/7/2009 (H1N1)-like virus, an A/Switzerland/9715293/2013 (H3N2)- like virus, and a B/Phuket/3073/2013-like (Yamagata lineage) virus.
 - This represents changes in the influenza A (H3N2) virus and the influenza B virus as compared with the 2014–15 season.
- Quadrivalent influenza vaccines will contain the vaccine viruses above, and a B/Brisbane/60/2008-like (Victoria lineage) virus, which is the same Victoria lineage virus recommended for quadrivalent formulations in 2013–2014 and 2014–2015.



Who Should Get Vaccinated?



- *All persons aged 6 months and older, especially persons who are:*
- Pregnant;
- Healthcare personnel (HCP);
- Living with chronic medical conditions, severely immunocompromised, and those living in a protective environment;
- Household contacts and caregivers of children <59 months and adults ≥50 years;
- Live with or have direct contact with infants <6 months of age;
- Household contacts and caregivers of persons with medical conditions that put them at higher risk for severe complications from influenza; and
- Morbidly obese





High-risk persons for Flu



People at High Risk for Developing Flu-Related Complications

- **Children** younger than 5 years of age but especially children younger than 2 years old;
- Adults 65 years of age and older;
- Pregnant women;
 - And women up to 2 weeks post-partum
- Residents of nursing homes and other long-term care facilities.

http://www.cdc.gov/flu/about/disease/high_risk.htm



Flu and Tdap Vaccine During Pregnancy

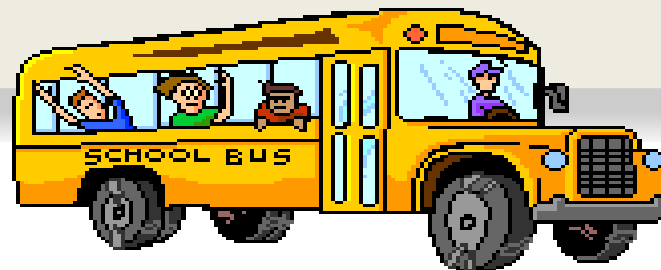
With a pertussis epidemic in progress and Flu season quickly approaching, ACIP/CDC **recommends that all pregnant women** receive:



- **Tdap** shot between 27 - 36 weeks gestation of each pregnancy
- **Influenza shot** at any stage during their pregnancy
- **Influenza is 5 times more likely to cause severe illness in pregnant women due to:**
 - *Changes in the immune system, heart, and lungs during pregnancy*
 - *Increased risk of premature labor and delivery*
- **Vaccination during pregnancy protects both mother/infant from influenza and pertussis, hospitalizations and preterm birth.**

Flu Vaccination & Persons Working with Children

- It's important for persons who have direct contact with children through 18 years of age be vaccinated.
- While it is important for all persons aged 6 months and older to be vaccinated annually, emphasis should be placed on vaccination of persons who work with children and staff at Day Care Centers and Schools.





Health Officer Order

Immunization Program

About Us
Vaccine Preventable Diseases
Information for Parents and the Public
Information for Health Care Providers
Information for Schools
Adult Immunization Information
Immunization Clinics (free and low-cost clinics providing immunizations)
Immunization Materials
Immunization Schedules
Influenza Information
Where to Get a Flu Vaccination
Perinatal Hepatitis B Prevention
Reports
Trainings and Conferences
Travel Immunizations
Vaccine Adverse Event Reporting System (VAERS)
Directory
Glossary
Newsletters
Immunization Registry (CAIR)

Health Officer Order Influenza Vaccination and Masking for Healthcare Personnel



In 2013 Jonathan E. Fielding, MD, MPH, who was the Director of the Los Angeles County Department of Public Health and Health Officer, issued a health officer order that was designed to protect health care personnel from influenza and lower the risk of the transmission of influenza to patients. This order remains in effect for the duration of the current influenza season and all future seasons, unless rescinded.

The health officer order mandates that healthcare personnel in acute care hospitals, long term care facilities, and intermediate care facilities in Los Angeles County be vaccinated against influenza, or wear a protective mask. The goal of the order is to lower the rates of transmission of influenza among healthcare personnel and the vulnerable populations that they serve.

The influenza vaccination order applies to all individuals working in acute care hospitals, long term care facilities, and intermediate care facilities who have direct patient contact or work in patient areas during the influenza season (November 1 through March 31). It excludes facilities in the cities of Long Beach and Pasadena, which are separate health jurisdictions.

Health Officer Order Resources

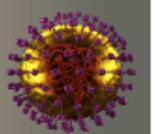
- [Los Angeles County Health Officer Order: Influenza Vaccination and Masking for Healthcare Personnel](#)
- [Continuation of the Los Angeles County Health Officer Order for the 2014-2015 Influenza Season](#)
- [Updated Supporting Rationale for Requiring Influenza Vaccination or Masking for Healthcare Personnel](#)
- [Updated Health Officer Order Frequently Asked Questions](#)
- [Influenza Vaccination for Healthcare Personnel Fact Sheet](#)
- [Frequently Asked Questions about Influenza Vaccinations](#)
- [Customizable Poster Regarding Masking](#)

About Us

Mission Statement: To improve immunization coverage levels & prevent vaccine-preventable diseases.

Vision: Healthy children and adults, free of vaccine-preventable diseases.

**UPDATE
MEASLES
VIRUS DISEASE**



[En Español](#)

**MENINGITIS
Are You At Risk?**

**It's Flu Season
Get Vaccinated!**



Community Immunity

Community immunity is a situation in which a sufficient proportion of a population is immune to an infectious disease (*through vaccination and/or prior illness*) to make its spread from person to person unlikely. Even individuals not vaccinated (*such as newborns and those with chronic illnesses*) are offered some protection because the disease has little opportunity to spread within the community.

– **Also known as herd immunity.**

Adverse Reactions Following IIV Vaccination

- ***Nonspecific systemic symptoms***, including fever, chills, malaise, and myalgia, are reported in fewer than 1% of IIV recipients.
 - *These symptoms usually occur in those with no previous exposure to the viral antigens in the vaccine. They usually occur within 6-12 hours of IIV vaccination and last 1-2 days.*
- Recent reports indicate that these systemic symptoms are no more common than in persons given a placebo injection.
- Rarely, immediate hypersensitivity, presumably allergic, reactions (*such as hives, angioedema, allergic asthma, or systemic anaphylaxis*) occur after vaccination with IIV. These reactions probably result from hypersensitivity to a vaccine component.

Contraindications to Flu Vaccine

- Severe allergic reaction to any vaccine component, including egg protein, or after previous dose of flu vaccine
- Latex allergy
 - some flu vaccine vials/syringes contain latex

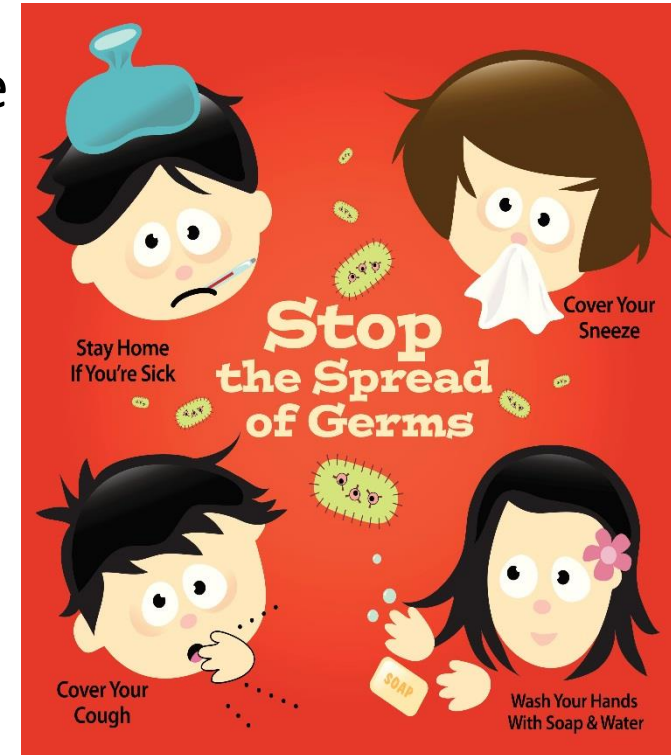
Precautions

- Moderate to severe acute illness with or without fever
- History of Guillian – Barre' syndrome within 6 weeks of receipt of influenza vaccine

Flu Prevention!



- Get your flu vaccination and other recommended immunizations up-to-date
- Stay home for 24 hours **after fever** ends
- Cover coughs and sneezes
- Avoid touching your eyes, nose, and mouth
- **Wash your hands** with soap and water
- Practice healthy habits:
 - Eating healthy foods & Drink water
 - Exercise to maintain a strong body that is able to **fight** germs
 - Getting enough sleep



INFLUENZA WATCH

Influenza and Related Disease Updates for Los Angeles County

Season Summary
August 2015
Volume 9, Issue 14
Page 1 of 4

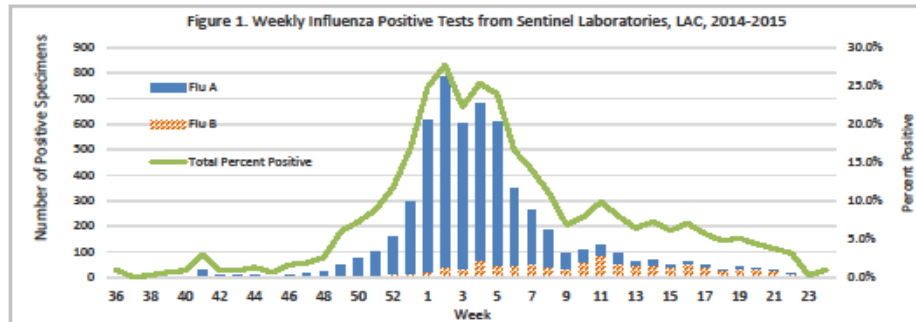
2014-2015 Influenza Season Summary

The 2014-2015 influenza season in Los Angeles County (LAC) was mild to moderate, with fewer fatal cases reported but higher activity measured by other surveillance indicators compared to last season. Influenza A (H3N2) was the dominant strain, with a subsequent increase in influenza B activity which commonly peaks later in the season (Figure 1). A total of 54 influenza-associated deaths (51 adult, 3 pediatric) were reported this season, with the majority of fatalities occurring in the 65 years and older age group (N=39, 72.2%) which is consistent with other A (H3N2) predominant seasons. Overall peak activity occurred during mid-January, which is common for LAC but late compared to the rest of the country which peaked in late December. Influenza activity remained elevated longer than usual, continuing well into May, primarily attributable to type B. Although influenza activity varies from season-to-season, activity usually returns to baseline levels by March-April.

Both locally and nationally, influenza A (H3N2) was the dominant strain and the majority of these viruses were different than the one included in the 2014-2015 seasonal vaccine. The 2014-2015 seasonal vaccine was not a good match to the dominant circulating strain and vaccine efficacy (VE) against A (H3N2) viruses was estimated at 18% (95% confidence interval (CI): 6%-29%); however, VE against influenza B was estimated at 45% (95% CI: 14%-65%) (1). This year's long flu B season emphasizes the importance of vaccinating throughout the winter and into spring. The influenza A (H1N1) pandemic strain was detected at the lowest levels since its emergence in 2009 (<1% of all subtyped influenza A) (2).

¹CDC Presents Updated Estimates of Flu Vaccine Effectiveness for the 2014-2015 Season | News (Flu) | CDC

²Situation Update: Summary of Weekly FluView | Seasonal Influenza (Flu) | CDC



	Peak Week 2 1/11/-1/17/15	2014-15 Season 9/1/14-8/8/15
Positive Flu Tests/Total Tests†	787/2,839	5,752/48,405
(Percent Positive Flu Tests)	(27.7%)	(11.9%)
Percent Flu A/B	95/5	81/19
Respiratory outbreaks –Unk Etiology	2	21
Influenza confirmed outbreaks††	8	37
Total Community Respiratory Outbreaks	10	58
Pediatric Flu Deaths	1	3
Adult Flu Deaths, confirmed†††	8	51
Total Flu Deaths*	9	54

†Sentinel sites (8 participating) ††Associated with at least one positive influenza lab test

†††Confirmed influenza death is defined by a positive lab test, ILI symptoms, and clear progression from illness to death *Flu deaths peaked week 3

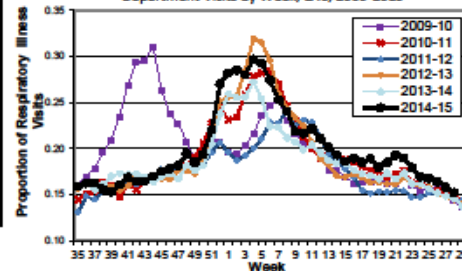
Note: LA County tracks flu deaths of all ages, CA State reports on those <65 years only

Contact information: fluwatch@listserv.ph.lacounty.gov

Acute Communicable Disease Control (213) 240-7941

www.publichealth.lacounty.gov/acd

Figure 2. Proportion of Respiratory Illness Emergency Department Visits by Week, LAC, 2009-2015



Contact Information:

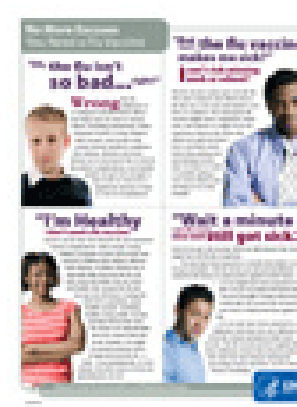
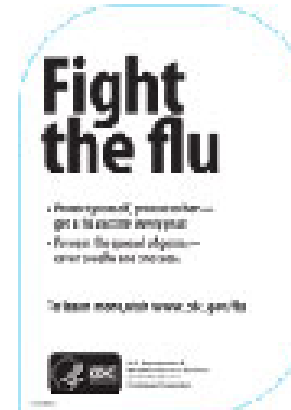
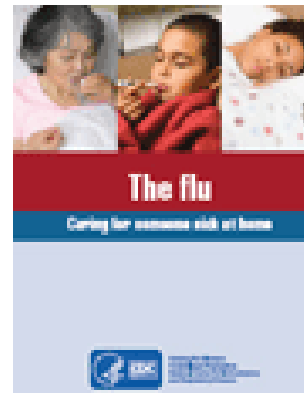
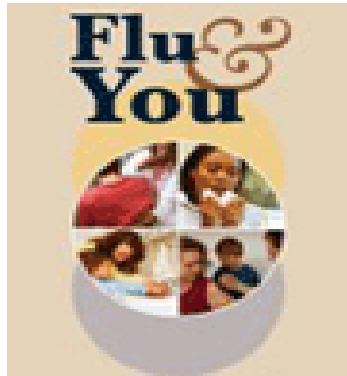
fluwatch@listserv.ph.lacounty.gov

Acute Communicable Disease

Control (213) 240-7941

www.publichealth.lacounty.gov/acd

Various *free* CDC Educational Flu Handouts





Adult VACCINE RECOMMENDATIONS



Tetanus, diphtheria, and acellular pertussis (Td/Tdap)

- Adults with unknown or incomplete history of a 3-dose series with Td-containing vaccines should begin or complete a primary vaccination series including a Tdap dose.
- For unvaccinated adults, administer the first 2 doses at least 4 weeks apart and the third dose 6 to 12 months after the second.
- For adults not completely vaccinated (i.e., received less than 3 doses) administer remaining doses.
- ACIP recommends administering Tdap as prophylaxis in wound management if adult not previously vaccinated.
- Administer 1 dose of Tdap vaccine to pregnant women during each pregnancy (preferred during 27 to 36 weeks' gestation) regardless of interval since prior Td or Tdap vaccination.
 - Practice Cocooning Strategy of vaccinating household contacts and other family members 2-weeks prior to delivery.



Varicella

- Incubation period 14 to 16 days (*range 10 to 21 days*).
- Mild prodromal for 1 to 2 days (**adults**).
- Rash generally appears first on the head; most concentrated on the trunk.
- Successive crops over several days with lesions present in several stages of development.

Varicella (chickenpox) Vaccination

- All adults without evidence of immunity. Evidence of immunity includes:
 - written documentation of 2 doses of varicella vaccine;
 - a history of varicella disease or herpes zoster (shingles) based on healthcare-provider diagnosis;
 - laboratory evidence of immunity or confirmation of disease;
 - and/or birth in the U.S. before 1980.
- HCP born in the U.S. before 1980 who do not meet any of the criteria above should be tested or given the 2-dose vaccine series.
 - If not immune give 2-doses at 0 and 4-8 weeks.
- Pregnant women should be assessed for evidence of varicella immunity. Women without evidence of immunity should receive the first dose of varicella vaccine upon completion or termination of pregnancy and before discharge from the hospital. The 2nd dose should be administered 4 to 8 weeks after the first dose.

HPV- associated Disease



WOMEN

MEN

TYPE

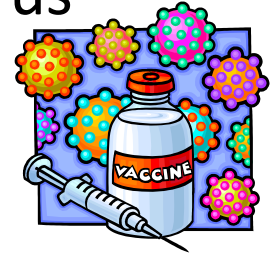


16/ 18	70% of cervical cancers	70% of anal cancers
	60% of all anal/genital cancers	
6/ 11	90% of genital warts	90% of genital warts
	90% of RRP* lesions	90% of RRP lesions
		Transmission to women

Sexually Transmitted Infection (STI) is the termed used, not STD

* RRP = recurrent respiratory papillomatosis

NEW ACIP Recommendation for Human Papillomavirus (HPV) Vaccination: EFFECTIVE MARCH 27, 2015



- 9vHPV, 4vHPV, or 2vHPV for routine vaccination of females 11-12 years of age and females **through** 26 years who have not been vaccinated previously or who have not completed the 3-dose series. (*9-valent: 6, 11, **16**, 18, 31, 33, 45, 52, & 58*)
- 9vHPV or 4vHPV for routine vaccination of males 11-12 years and males through 21 years who have not been vaccinated previously or who have not completed the 3-dose series.
- 9vHPV or 4vHPV vaccination for men who have sex with men and immunocompromised men (*including those with HIV infection*) through age 26 years if not vaccinated previously.

HPV Adult Vaccination

Females:

- 3-dose series for routine vaccination at age 11 or 12 years and those aged 13-26 years, if not previously vaccinated.
- HPV not recommended for use in pregnant women; pregnancy testing is not needed before vaccination. If found to be pregnant after being vaccinated, no intervention needed; the remainder dose series should be delayed until delivery.

Males:

- 3-dose series for routine vaccination at age 11 or 12 years and those aged 13-21 years, if not previously vaccinated.
- Recommended for men aged 22-26 years who have sex with men and did not get any or all doses when younger.
- Vaccination is recommended for immunocompromised persons (including HIV infection). Also applies to females

Shingles Rash



Zoster (Shingles)

- A single dose of zoster vaccine is recommended for adults aged 60 years and older regardless of whether they report a prior episode of herpes zoster.
 - Although the vaccine is licensed by the U.S. Food and Drug Administration (FDA) for use among persons aged 50 years and older, ACIP recommends that vaccination begin at age 60 years
- Persons aged 60 years and older with chronic medical conditions may be vaccinated unless their condition constitutes a contraindication, such as pregnancy or severe immunodeficiency.
- If 2 or more of the following live virus vaccines are to be given—MMR, Varicella, Zoster or yellow fever— they should be given on the same day. If they are not administered on the same day, separate vaccines by at least 28 days.

Measles, mumps, rubella (MMR)



Measles



Rubella rash

Congenital Rubella
Syndrome



Mumps

Measles, mumps, rubella (MMR)

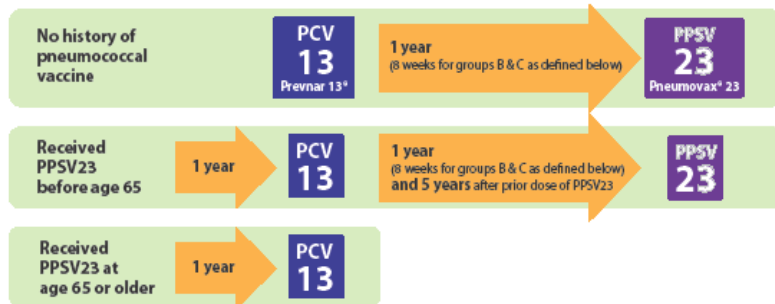
- Adults **born before 1957** generally are considered immune to measles/mumps.
- All adults **born in 1957 or later** should have documentation of 1 or more doses of MMR unless they have a medical contraindication to the vaccine, lab evidence of immunity to each of the three diseases, or documentation of provider-diagnosed measles or mumps disease.
- **For unvaccinated HCP born before 1957** who lack lab evidence of measles, mumps, and/or rubella immunity or lab confirmation of disease, consider vaccinating personnel with 2 doses of MMR.
- A routine second dose of MMR vaccine, administered a minimum of 28 days after the first dose, is recommended for adults who:
 - are students in postsecondary educational institutions; work in a health-care facility or; plan to travel internationally.

Pneumococcal Vaccine Timing–For Adults

DO NOT administer PCV13 and PPSV23 at the same visit.

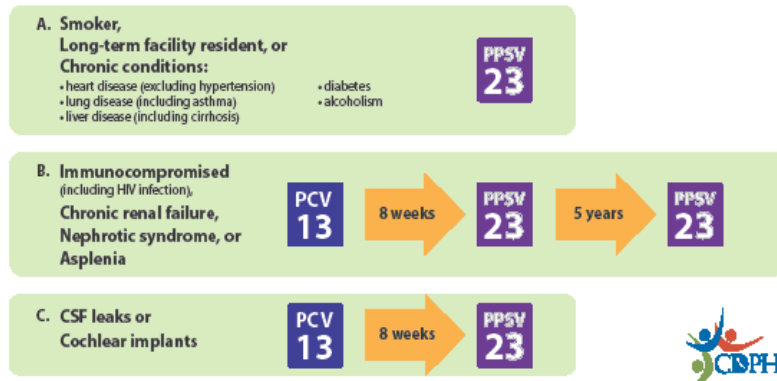
Age 65 Years or Older

• If PCV13 was given before age 65 years, no additional PCV13 is needed.



Age 19-64 Years With Underlying Condition(s)

- Prior doses count towards doses recommended below and do not need to be repeated.
- If PPSV23 given previously – wait one year before giving PCV13
 - for group B, wait at least five years before giving a second dose of PPSV23.
- No more than two doses of PPSV23 recommended before 65th birthday and one dose thereafter.



For further details, see: www.cdc.gov/vaccines/imz/ncip-rsccs-specific/pneumo.html

California Department of Public Health, Immunization Branch www.EZIZ.org

This publication was supported by Grant Number H23/CC4922507 from the Centers for Disease Control and Prevention (CDC)

IMM-1152 (9/15)

As of Sept 4, 2015 the ACIP *changed* the recommended interval between PCV13 followed by PPSV23 *from* 6-12 months **to 1 year** or greater for adults 65 years and older.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6434a4.htm>

PCV13: Adult Recommendations



- 1-dose of PCV13 for all persons 65 years and older
- 1- dose for adults 19-64 years with the following health conditions:
 - Persons with: sickle cell disease/other hemoglobinopathies, congenital or acquired asplenia, congenital or acquired immunodeficiencies, HIV infection, chronic renal failure, nephrotic syndrome, leukemia, lymphoma, Hodgkin's disease, generalized malignancy, iatrogenic immunosuppression, solid organ transplant, multiple myeloma
- Persons with CSF leaks, cochlear implants
 - Cerebrospinal fluid surrounds brain/spinal cords causes pressure
 - Cochlear implants are a surgically implanted electronic device that provides a sense of sound to deaf or severely hard of hearing person.



Meningococcal Disease: Late Stage Meningococemia

Waterhouse-Friderichsen Syndrome



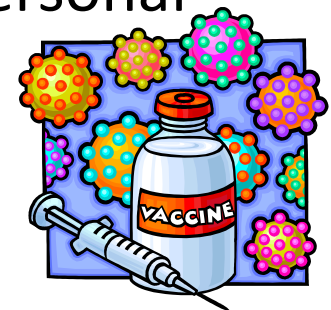
Meningococcal Adult Vaccination

- Two doses of meningococcal conjugate at least 2 months apart to adults with functional asplenia or persistent complement component deficiencies.
 - HIV infected persons who are vaccinated also should receive 2 doses
- First year college students age 21 years who are living in residence halls should be vaccinated if they have not received a dose on or after their 16th birthday
- Revaccination is recommended every 5 years for adults previously vaccinated with MCV4 or MPSV4 who remain at increased risk for infection (e.g., adults with anatomic or functional asplenia or persistent complement component deficiencies).
- Microbiologists, routinely exposed to isolates of *Neisseria meningitidis*, military recruits, persons at risk during an outbreak to a vaccine serogroup, and persons who travel to or live in countries in which meningococcal disease is hyperendemic or epidemic.

Hep A Vaccination Recommendations

- Hepatitis A vaccine recommendations updated to clarify vaccination for persons with a history of either injection or non-injection illicit drug use.
 - Men who have sex with men (MSM);
 - Persons working with HAV-infected primates OR in a research lab; with chronic liver disease, who receive clotting factor concentrates; and traveling to or working in countries with high endemicity of Hep A; and
 - Unvaccinated persons who anticipate close personal contact with international adoptees.

- *Also those who eat out 😊*





Hep B Vaccination Recommendations

- 3-doses are recommended for all adults;
- Household contacts and sex partners of HBsAg-positive people; injecting drug users; sexually active people not in a long-term, mutually monogamous relationship; men who have sex with men; people with HIV; people seeking STD evaluation or treatment;
 - hemodialysis patients and those with renal disease that may result in dialysis;
 - diabetics younger than age 60yrs (diabetics age 60yrs and older may be vaccinated at the clinician's discretion); and
 - HCP and public safety workers who are exposed to blood; clients/staff of institutions for the developmentally disabled;
 - inmates of long-term correctional facilities;
 - certain international travelers; and people with chronic liver disease.

Things we (HCP) need to do!



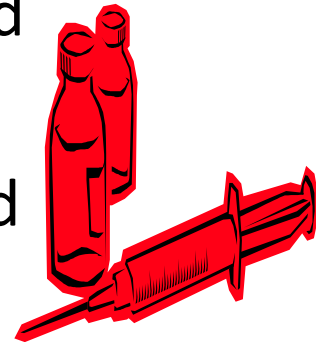
Photo courtesy of CDC

Promote Adult Immunizations
and
GET VACCINATED!!

Promoting Adult IZs!



- Significant burden of illness among adults with diseases or which vaccines are available.
- Low vaccination coverage rates among adults means many adults are vulnerable to illnesses, hospitalizations and deaths that could be prevented.
- Adult Immunization Practice Standards updated and supported by wide range of provider organizations.
- Implementation key to increasing awareness of adult immunization, improving vaccine coverage, and ensuring adults get the right number of vaccines and doses at the right time.
- Many tools and resources available to help providers.



Together we can Improve Adult IZ Rates in the Clinical Setting!

- Adult coverage remains low for routinely recommended vaccines and well below Healthy People 2020 targets.
- Strategies to improve vaccination rates:
 - Assess vaccination status during each health care visit
 - Educate adults and promote vaccinations in your practice
 - Use preventive flow sheets
 - Use patient/clinic reminders for needed vaccinations (i.e. immunization registry)
 - Develop tracking systems for vaccinations (i.e. immunization registry)
 - Provide walk-in immunization services





Resources and other valuable Immunization Information

GET PROTECTED

FREE or LOW COST

Vaccines for Adults Uninsured and under insured



VACCINES AVAILABLE:

Hepatitis A

Hepatitis B

HPV (human papilloma virus)

Pneumococcal Conjugate
(pneumonia)

Meningococcal Conjugate
(meningitis)

Tdap (tetanus, diphtheria and
pertussis - commonly known as
whooping cough)

Varicella (chicken pox)

Zoster (shingles)

Flu (influenza)

Call your regular health care provider to learn
what other shots you may need. If you don't
have a regular doctor, call 2-1-1 for a list of
no-cost or low-cost vaccine providers.

Follow us at:

www.facebook.com/lapublichealth
www.facebook.com/lasaludpublica
www.twitter.com/lapublichealth

*Offer valid while supplies last

Available at the following Los Angeles County Department
of Public Health Immunization Clinics.

**Antelope Valley
Health Center**
335-B East Avenue K6
Lancaster, CA 93535
(661) 723 4526

Glendale Health Center
501 N. Glendale Ave
Glendale, CA 91206
(818) 500-5762

Pacoima Health Center
13300 Van Nuys Blvd.
Pacoima, CA 91331
(818) 896-1903

Monrovia Health Center
330 W. Maple Ave
Monrovia, CA 91016
(626) 256-1600

Pomona Health Center
750 S. Park Ave
Pomona, CA 91766
(909) 868-0235

Central Health Center
241 N. Figueroa Street
Los Angeles, CA 90012
(213) 240-8204

**Hollywood Wilshire
Health Center**
5205 Melrose Ave
Los Angeles, CA 90038
(323) 769-7800

**MLK Jr Center for
Public Health**
11833 S. Wilmington Ave
Los Angeles, CA 90059
(323) 568 8729

Whittier Health Center
7643 S. Painter Ave
Whittier, CA 90602
(562) 464-5350

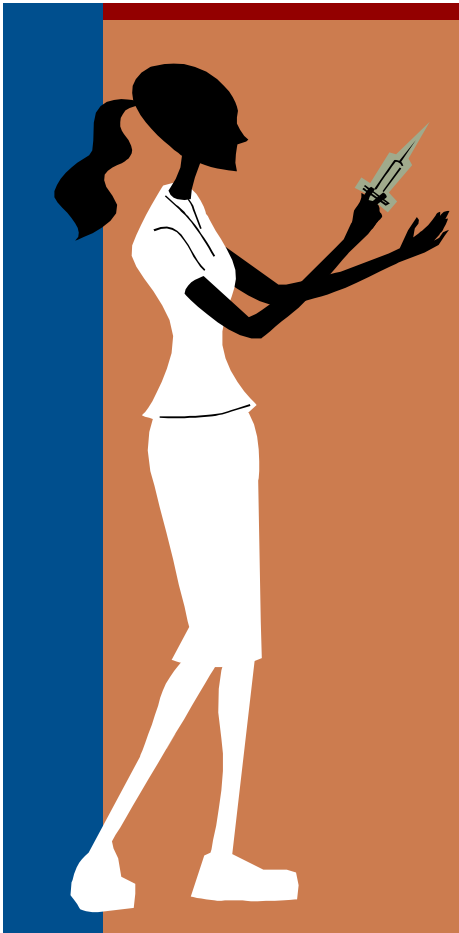
Curtis Tucker Health Center
123 W. Manchester Ave
Inglewood, CA 90301
(310) 419-5325

Torrance Health Center
711 Del Amo Blvd.
Torrance, CA 90502
(310) 354-2300



<http://www.publichealth.lacounty.gov/locator.htm#a>

- Immunization Program -
www.publichealth.lacounty.gov/ip/flu/index.htm
 - General Information and Handouts
 - Vaccine Fact Sheets
 - B71 Recommendations (Information for Healthcare Providers)
 - Download forms (e.g. job aids, VIS, VAERS, etc.)
- Influenza Watch www.publichealth.lacounty.gov/acd/FluSurveillance.htm
- EZIZ - www.eziz.org
- CDC - www.cdc.gov/vaccines/ and www.cdc.gov/pneumococcal/
- ACIP Recommendations- www.cdc.gov/vaccines/recs/acip/
- California Department of Public Health
www.cdph.ca.gov/programs/immunize/Pages/default.aspx
- Epidemiology & Prevention of VPDs “Pink Book”
www.cdc.gov/vaccines/pubs/pinkbook/genrec.html
- Needy Meds - www.needymeds.com



Questions?



**Thank you all for promoting
“ Adult Immunizations!”**

IMMUNIZATION PROGRAM

www.publichealth.lacounty.gov/ip

(213) 351-7800 phone



Video: Summary of Flu, Pneumococcal, Shingles & Tdap

