County of San Diego

PHYSICIANS' BULLETIN

Health and Human Services Agency ◆ P.O. Box 85222, San Diego, CA ◆ 92186-5222 www.co.san-diego.ca.us/cnty/cntydepts/health

September 2002 *"Focusing on Families as Our Customers"* **No. 441**

Influenza Immunization Recommendations Released

Note: Medicare B reimburses for influenza vaccines.

The influenza recommendations for the 2002-2003 season include five main changes or updates:

1) The optimal time to receive influenza vaccine is during October and November. However, because of vaccine distribution delays during the past 2 years, the Advisory Committee on Immunization Practices (ACIP) recommends that vaccination efforts in October focus on persons at greatest risk for influenza-related complications and health care workers and that vaccination of other groups begin in November.
2) Vaccination efforts for all groups should continue into December and later, for as long as vaccine is available.
3) Because young, otherwise healthy children are at increased risk for influenza-related hospitalization, influenza vaccination of healthy children aged 6-23 months is encouraged when feasible. The Vaccines for Children Program (VFC) will have funding for this new population group begining 2003-2004. Vaccination of children aged ≥6 months who have certain medical conditions continues to be strongly recommended. The VFC program currently provides vaccine for these children.
4) The 2002-2003 trivalent vaccine virus strains are: A/Moscow/10/99 (H3N2)-like, A/New Caledonia/20/99 (H1N1)-like, and B/Hong Kong/330/2001-like.
5) A limited amount of influenza vaccine with reduced thimerosol content will be available for the 2002-2003 influenza season.

2002-2003 Vaccine Composition and Recommendations

The recommended vaccine for the coming flu season contains protection against A/Moscow/10/99 (H3N2)-like, A/New Caledonia/20/99 (H1N1)-like, and B/Hong Kong/330/2001-like hemagglutinin antigens. For the A/Moscow/10/99 (H3N2)-like antigen, U.S. manufacturers will use the antigenically equivalent strain A/Panama/2007/99 (H3N2) and for the B/Hong Kong/330/2001-like antigen, they will use one of the antigenically equivalent viruses: B/Hong Kong/330/2001-like or B/Hong Kong/1434/02; these viruses will be used because of their growth properties and because they are representative of currently circulating A (H3N2) and B viruses. Although the current vaccine can contain one or more antigens used in previous years, immunity declines during the year following vaccination. Therefore, a history of vaccination for the previous season does not preclude the need to be revaccinated.

Influenza vaccine is strongly recommended for anyone ≥6 months of age who, because of age or underlying medical condition, is at increased risk for complications of influenza.

Health care workers and others (including household members) in close contact with high-risk groups also should be vaccinated. *Due to the possibility of vaccine supply problems, persons who fall into the categories below (***Groups at Increased Risk** and **Groups That Can Transmit Influenza to Persons at High Risk***) should be encouraged to get vaccine in October and earlier, whereas other groups should be considered for vaccine in November or later.*

Groups at Increased Risk

Specifically, the following groups should be encouraged to receive protection, according to the latest CDC guidelines:

1. Persons aged ≥65 years; (County Health and Human Services will follow California legislative guidelines and provide state-supplied vaccine to persons ≥60 years);
2. Residents of nursing homes and other chronic-care facilities that house persons of any age who have chronic medical conditions;
3. Children and adults who have chronic disorders of the pulmonary or cardiovascular systems, including asthma;
4. Children and adults who have required regular medical follow-up or hospitalization during the preceding year because of chronic

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metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies (including anemia), or immunosuppression (e.g., caused by medications or human immunodeficiency virus);

5. Persons aged 6 months-18 years who are receiving long-term aspirin therapy and therefore might be at risk for developing Reye syndrome after influenza; and
6. Women who will be in the second or third trimester of pregnancy during the influenza season.

Although influenza vaccination levels have increased substantially for seniors, further improvements are needed, particularly among persons at high risk aged <65 years. The ACIP recommends the use of strategies to improve vaccinations levels, including the use of reminder/recall systems and standing orders programs.

Groups That Can Transmit Influenza to Persons at High Risk

The following groups also should be encouraged to receive vaccine:

1. Physicians, nurses and other personnel in both hospital and outpatient care settings, including emergency response workers;
2. Employees of nursing homes and chronic-care facilities who have contact with patients or residents;
3. Employees of assisted living and other residences for persons in high-risk groups;
4. Providers of home care to persons at high risk (e.g., visiting nurses, volunteer workers); and,
5. Household members (including children) of persons in high-risk groups.

Vaccination of Healthy Young Children

Because children aged 6-23 months are at substantially increased risk for influenza-related hospitalizations, influenza vaccination of all children in this age group is encouraged when feasible. Among children aged 0-4 years, hospitalization rates have ranged from approximately 500/100,000 population for those with high-risk conditions to 100/100,000 for those without high-risk conditions. Within the 0-4 age group, hospitalization rates are highest among children aged 0-1 years and comparable to rates found among persons aged ≥65 years. However, before a full recommendation to annually vaccinate all children aged 6-23 months can be made, ACIP, the American Academy of Pediatrics (AAP) and the American Academy of Family Physicians (AAFP) recognize that certain key concerns must be addressed. These concerns include increasing efforts to educate parents and providers regarding the impact of influenza and the potential benefits and risks of vaccination among young children, clarification of practical strategies for annual vaccination of children, certain ones of whom will require two doses within the same season, and reimbursement for vaccination. ACIP will provide updated information as these concerns are addressed. A full recommendation could be made by 2003-2005. In the interim, ACIP continues to strongly recommend influenza vaccination of adults and children aged ≥6 months who have high-risk medical conditions.

The current inactivated influenza vaccine is not approved by FDA for use among children aged <6 months, the pediatric group at greatest risk for influenza-related complications (1). Therefore, vaccinating their household contacts and out-of-home caretakers might decrease the probability of influenza among these children.

Side Effects and Adverse Reactions

When educating patients about potential side effects, clinicians should emphasize that: a) inactivated influenza vaccine contains only noninfectious killed viruses, it cannot cause influenza; and b) coincidental respiratory disease unrelated to influenza vaccination can occur after vaccination. The most frequent side effect of vaccination is soreness at the vaccination site that lasts up to 2 days. These local reactions generally are mild and rarely interfere with the ability to conduct usual daily activities. In addition, two types of systemic reactions have occurred:

- Fever, malaise, myalgia, and other systemic symptoms can occur following vaccination and most often affect persons who have had no exposure to the influenza virus antigens in the vaccine (e.g., young children). These reactions begin 6 to 12 hours after vaccination and can persist for 1 or 2 days. Recent placebo controlled trials suggest that among elderly persons and healthy young adults, split-virus influenza vaccine is not associated with higher rates of systemic symptoms (e.g., fever, malaise,

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Recommended Influenza Vaccine* Dose By Age, 2002-2003

Age group†	Dose	Number of doses	Route§
6-35 mos.	0.25 mL	1 or 2¶	Intramuscular
3-8 yrs.	0.50 mL	1 or 2¶	Intramuscular
≥9 yrs.	0.50 mL	1	Intramuscular

* Contains 15 mg. each of A/Moscow/10/99 (H3N2)-like, A/New Caledonia/20/99 (H1N1)-like, and B/Hong Kong/330/2001-like strains. For the A/Moscow/10/99 (H3N2)-like antigen, manufacturers will use the antigenically equivalent A/Panama/2007/99 (H3N2) virus. For the B/Hong Kong/330/2001-like antigen, the actual B strains the will be included in the vaccine will be announced later. Manufacturers include Aventis Pasteur, Inc. (Fluzone® split); Evans Vaccines, Ltd. (Fluvirin® purified surface antigen vaccine); and Wyeth Lederle Laboratories (Flushield™ split). Fluzone and Flushield are Food and Drug Administration approved for use among persons aged ≥6 months. Fluvirin is approved for use among persons aged ≥4 years. For further product information call Aventis Pasteur, (800) 822-2463; Evans Vaccines, (800) 200-4278, or Wyeth Lederle, (800) 358-7443.

† Because of their decreased potential for causing febrile reactions, only split-virus vaccines should be used for children aged <13 years. Split-virus vaccines might be labeled as "split," "subvirion," or "purified-surface-antigen" vaccine. Immunogenicity and side effects of split- and whole-virus vaccines are similar among adults when vaccines are administered at the recommended dosage. Whole-virus vaccine is not available in the United States.

§ For adults and older children, the recommended site of vaccination is the deltoid muscle. The preferred site for infants and young children is the anterolateral aspect of the thigh.

¶ Two doses administered at least ≥1 month apart are recommended for children aged <9 years who are receiving influenza vaccine for the first time.

myalgia, and headache) when compared with placebo injections.

- Immediate, presumably allergic, reactions (such as hives, angioedema, allergic asthma, or systemic anaphylaxis) rarely occur after influenza vaccination. These reactions probably result from sensitivity to some vaccine component, most likely residual egg protein. Protocols have been published for safely administering influenza vaccine to persons with egg allergies(2,3).

Note: Influenza vaccine distributed in the U.S. contains thimerosol, a mercury-containing compound, as a preservative. This preservative has been used in U.S. vaccines since the 1930s. No data or evidence exists of any harm caused by the level of mercury exposure that might occur from influenza vaccination. Because of the known risk for severe illness from influenza infection to young children and pregnant women and the benefits of vaccination, and because a substantial safety margin has been incorporated into the health guidance values for organic mercury exposure, the benefit of influenza vaccine with reduced or standard thimerosal content outweighs the theoretical risk, if any, from thimerosal. The removal of thimerosal from other vaccines further reduces the theoretical risk from thimerosal in influenza vaccines.

Timing of Influenza Vaccine Activities

The optimal time to vaccinate persons in groups at high risk is usually during October-November. However, to avoid missed opportunities for vaccination, influenza vaccine should be offered to persons at high risk when they are seen by health-care providers for routine care or are hospitalized in September, provided that vaccine is available. In facilities housing older persons (e.g., nursing homes), vaccination before October typically should be avoided because anitbody levels in such persons can begin to decline within a limited time after vaccination. **In addition, health-care providers should also continue to offer vaccine to unvaccinated persons after November and throughout the influenza season even after influenza activity has been documented in the community.** In the United States, seasonal influenza activity can begin to increase as early as November or December but has not reached peak levels in the majority of recent seasons until late December through early March. Therefore, although the timing of influenza activity can vary by region, vaccine administered after November is likely to be beneficial in most influenza seasons. Adults develop peak antibody protection against influenza infection 2 weeks after vaccination.

Persons planning substantial organized vaccination campaigns should consider scheduling these events after mid-October because the availability of vaccine in any location cannot be ensured consistently in the early fall. Scheduling campaigns after mid-October will minimize the need for cancellations because vaccine is unavailable. **Campaigns conducted before November should focus efforts on vaccination of persons at high risk, health-care workers, and household contacts of persons at high risk to the extent feasible.**

Children <9 years of age who have not been vaccinated previously should receive two doses of vaccine at least 1 month apart to maximize the likelihood of a satisfactory antibody response to all three vaccine antigens. The second dose should be administered before December, if possible. Vaccination efforts for all

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groups should continue into December and later as long as influenza vaccine is available.

Influenza Mortality

Epidemics of influenza typically occur during the winter months and are responsible for an average of approximately 20,000 deaths per year in the U.S (4,5). In San Diego County, which contains approximately 1 percent of the U.S. population, it is therefore likely that about 200 deaths from influenza and its complications will occur each year.

Influenza Vaccine Cost-Effectiveness

Influenza vaccination can help prevent at least some of these deaths and also reduce both health-care costs and productivity losses associated with influenza illness. Economic studies of influenza vaccination of persons aged ≥65 years conducted in the U.S. have found overall societal cost-savings and substantial reductions in hospitalization and death (6,7,8). Studies of adults aged <65 years have reported that vaccination can reduce both direct medical costs and indirect costs from work absenteeism. Also, in a study that included all age groups, cost-utility improved with increasing age and among those with chronic medical conditions (9).

Status of Intranasal Influenza Vaccine

An application for licensure of an intranasally administered, cold-adapted, live, attenuated influenza virus vaccine (LAIV) is under review by FDA. LAIVs are currently being used in Russia and have been under development in the U.S. since the 1960s (10-14). LAIVs consist of live viruses that replicate in the upper respiratory tract, that induce minimal symptoms (i.e., are attenuated) and that replicate poorly at temperatures found in the lower respiratory tract (i.e., are temperature-sensitive). Possible advantages of LAIVs are their potential to induce a broad mucosal and systemic immune response, ease of administration, and the acceptability of an intranasal rather than intramuscular route of administration.

Antiviral Agents: Amantadine, Rimantadine, Zanamivir and Oseltamivir

Physicians should note that none of the antiviral agents is a substitute for influenza vaccine, although they are critical adjuncts in the prevention and control of influenza.

None of the four antiviral agents has been demonstrated to be effective in preventing serious influenza-related complications (e.g. bacterial or viral pneumonia or exacerbation of chronic diseases). Evidence for the effectiveness of these four antiviral drugs is based principally on studies of patients with uncomplicated influenza. Data are limited and inconclusive concerning the effectiveness of amantadine, rimantadine, zanamivir, and oseltamivir for treatment of influenza among persons at high risk for serious complications of influenza.

When considering the use of influenza antiviral medications (i.e., choice of antiviral drug, dosage, and duration of therapy), clinicians must consider the patient's age, weight, and renal function; presence of other medical conditions; indications for use (i.e., prophylaxis or therapy); and the potential for interaction with other medications.

When determining the timing and duration for administering influenza antiviral medications for prophylaxis, factors related to cost, compliance and potential side effects should be considered. To be maximally effective as prophylaxis, the drug must be taken each day for the duration of influenza activity in the community. However, to be most cost-effective, one study of amantadine or rimantadine prophylaxis reported that the drugs should be taken only during the period of peak influenza activity in a community (15).

Note: The current guidelines for all antiviral agents, including a recommended dosage chart, are in the April 12, 2002 Morbidity and Mortality Weekly Report (MMWR) on influenza. Please see page 6 of this Bulletin for a copy of the chart, and see web resources listed on pages 5 & 7 .

Amantadine and **rimantadine** are two chemically related drugs which interfere with the replication cycle of **type A (but not type B)** influenza viruses. These drugs do not interfere with the antibody response to influenza vaccine (16). They can be used prophylactically or therapeutically. As with all drugs, they may cause adverse reactions in some persons.

Therapeutic Use: In otherwise healthy adults, amantadine or rimantadine can reduce by approximately one day the duration of signs and symptoms of uncomplicated influenza illness caused by **type A** virus when administered within 48 hours of illness onset.

Prophylactic Use: When administered prophylactically to healthy adults or children before and throughout the epidemic period, both drugs are approximately 70-90 percent effective in preventing illness caused by naturally occurring strains of **type A** influenza viruses. Both have been studied extensively among nursing home populations as a component of influenza outbreak control programs, which can limit the spread of influenza within chronic care institutions (16,17, 18-20). In addition to the use of antiviral medications, other outbreak control measures include instituting droplet precautions and establishing cohorts of patients with confirmed or suspected influenza, re-offering influenza vaccinations to unvaccinated staff and patients, restricting staff

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movement between wards or buildings, and restricting contact between ill staff or visitors and patients.

Zanamivir (an inhalant), and **oseltamivir** (a pill), two other prescription antiviral drugs, were approved in 1999 by the FDA for treatment of uncomplicated influenza illness caused by **type A and B** virus. Then, in 2000, oseltamivir was approved for prophylaxis as well as treatment for both **types A and B** virus. Again, as with all drugs, they may cause adverse reactions in some persons.

Therapeutic Use: In otherwise healthy adults, zanamivir and oseltamivir can reduce the duration of signs and symptoms of uncomplicated influenza A and B illness by approximately one day when administered within 48 hours of illness onset.

Note that zanamivir treatment of influenza-like illness among persons with asthma or chronic obstructive pulmonary disease can result in respiratory function deterioration. If physicians decide to prescribe zanamivir to patients with underlying chronic respiratory disease after carefully considering potential risks and benefits, the drug should be used with caution under conditions of proper monitoring and supportive care, including the availability of shortacting bronchodilators. No clear evidence is available regarding the safety or efficacy of zanamivir for persons with underlying respiratory or cardiac disease or for persons with complications of acute influenza.

Prophylactic Use (oseltamivir only): Community studies of healthy adults indicate that oseltamivir is 82% effective in preventing febrile, laboratory-confirmed influenza illness. One 6-week study of oseltamivir prophylaxis among nursing home residents found a 92% reduction in influenza illness(21, 22).

Again, current guidelines for all antiviral agents can be found on page 6 of this Bulletin and in the April 12, 2002 MMWR on influenza.

It is important to stress to patients that none of these antiviral drugs is a substitute for influenza vaccine. Immunization is the most effective way to prevent the flu. (Note: Nasal inhalant vaccine is not yet available.)

Influenza Vaccine Campaign Offers Opportunity to Provide Other Needed Adult Vaccines

Seniors and others at high risk of complications from influenza visit medical care providers each fall to receive influenza vaccine. Medical care providers should use this opportunity to evaluate these adults for other needed vaccines as well. Recommended vaccines are listed below.

Pneumococcal polysaccharide vaccine is effective against the 23 most common strains of *Streptococcus Pneumoniae*, a bacterial pathogen that causes illness and death, especially among the elderly and among persons who have certain medical conditions. *S. pneumoniae* has become increasingly resistant to antibiotics. Annual cases of invasive pneumococcal infections in the United States include 500,000 cases of pneumonia, 3000 cases of meningitis and 50,000 cases of bacteremia. The pneumococcal vaccine is recommended for persons age 65 and over. It is also recommended for anyone age 2 years and over with chronic illness, asplenia, or immune compromising conditions. Children 24 months of age and older, who have already received one or more doses of PCV-7 and who are at high risk of invasive pneumococcal disease will benefit from the additional serotypes included in PPV-23. Vaccination with PPV-23 should be considered for these high risk children. PPV-23 should be given no sooner than 2 months after the last dose of PCV-7. Complete information and the "one time revaccination recommendations" are available in the Centers for Disease Control & Prevention's April, 1997 report, *Prevention of Pneumococcal Disease, Recommendations of the Advisory Committee on Immunization Practices (ACIP).* This document is available on the CDC website noted below. While pneumococcal vaccine is not a substitute for the annual flu shot, it can provide protection against a major complication of influenza. Physicians should ensure that their senior and high-risk patients have received this important vaccine protection as an adjunct to their annual flu shot.

Measles, mumps and rubella combination vaccine (MMR) is advised for anyone born since 1957 and two doses are advised for most persons.

Tetanus and diphtheria vaccine (Td) is recommended every 10 years for those adults who have completed a basic Td series. Many persons born before the 1940s have never completed the basic 3-dose series of tetanus- and diphtheria-containing vaccine. These seniors should be given priority for Td vaccine supplies.

Varicella vaccine is also advised for those who do not have a history of chickenpox disease. Note, however, that epidemiologic and serologic studies indicate that ≥90% of adults are immune to varicella, including those who do not recall having had chickenpox. As a result, serologic testing prior to vaccination is likely to be cost effective for adults.

Hepatitis B vaccine is recommended for those at risk because of occupation or lifestyle.

Physicians are urged to capitalize on office visits by those at risk for influenza to provide all needed vaccines. To receive a free chart on adult vaccine recommendations, call the Immunization Program at (619) 692-8661.

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TABLE 4. Recommended daily dosage of influenza antiviral medications for treatment and prophylaxis

Antiviral agent	Age group (yrs) 1–6	7–9	10–12	13–64	≥65
Amantadine*					
Treatment, influenza A	**5** mg/kg/day up to 150 mg in two divided doses†	5 mg/kg/day up to 150 mg in two divided doses†	100 mg twice daily§	100 mg twice daily§	≤100 mg/day
Prophylaxis, influenza A	5 mg/kg/day up to 150 mg in two divided doses†	5 mg/kg/day up to 150 mg in two divided doses†	100 mg twice daily§	100 mg twice daily§	≤100 mg/day
Rimantadine¶					
Treatment,** influenza A	NA††	NA	NA	100 mg twice daily§ §§	100 mg/day
Prophylaxis, influenza A	5 mg/kg/day up to 150 mg in two divided doses†	5 mg/kg/day up to 150 mg in two divided doses†	100 mg twice daily§	100 mg twice daily§	100 mg/day¶¶
Zanamivir* †††**					
Treatment, influenza A and B	NA	10 mg twice daily	10 mg twice daily	10 mg twice daily	10 mg twice daily
Oseltamivir					
Treatment,§§§ influenza A and B	Dose varies by child's weight¶¶¶	Dose varies by child's weight¶¶¶	Dose varies by child's weight¶¶¶	75 mg twice daily	75 mg twice daily
Prophylaxis, influenza A and B	NA	NA	NA	75 mg/day	75 mg/day

NOTE: Amantadine manufacturers include Endo Pharmaceuticals (Symmetrel® — tablet and syrup); Geneva Pharms Tech and Rosemont (Amantadine HCL — capsule); and Alpharma, Copley Pharmaceutical, HiTech Pharma, Mikart, Morton Grove, and Pharmaceutical Associates (Amantadine HCL — syrup). Rimantadine is manufactured by Forest Laboratories (Flumadine® — tablet and syrup) and Corepharma (Rimantadine HCL — tablet). Zanamivir is manufactured by GlaxoSmithKline (Relenza® — inhaled powder). Oseltamivir is manufactured by Hoffman-LaRoche, Inc. (Tamiflu® — tablet). This information is based on data published by the Food and Drug Administration (FDA), which is available at www.fda.gov.

* The drug package insert should be consulted for dosage recommendations for administering amantadine to persons with creatinine clearance ≤50 mL/min/1.73m^2.

† 5 mg/kg of amantadine or rimantadine syrup = 1 tsp/22 lbs.

§ Children aged ≥10 years who weigh <40 kg should be administered amantadine or rimantadine at a dosage of 5 mg/kg/day.

¶ A reduction in dosage to 100 mg/day of rimantadine is recommended for persons who have severe hepatic dysfunction or those with creatinine clearance ≤10 mL/min. Other persons with less severe hepatic or renal dysfunction taking 100 mg/day of rimantadine should be observed closely, and the dosage should be reduced or the drug discontinued, if necessary.

** Only approved by FDA for treatment among adults.

†† Not applicable.

§§ Rimantadine is approved by FDA for treatment among adults. However, certain specialists in the management of influenza consider rimantadine appropriate for treatment among children (see American Academy of Pediatrics. 2000 red book American Academy of Pediatrics. 2000 red book: report of the Committee on Infectious Diseases. 25th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2000.).

¶¶ Older nursing-home residents should be administered only 100 mg/day of rimantadine. A reduction in dosage to 100 mg/day should be considered for all persons aged ≥65 years, if they experience possible side effects when taking 200 mg/day.

*** Zanamivir is administered through inhalation by using a plastic device included in the medication package. Patients will benefit from instruction and demonstration of correct use of the device.

††† Zanamivir is not approved for prophylaxis.

§§§ A reduction in the dose of oseltamivir is recommended for persons with creatinine clearance <30 mL/min.

¶¶¶ The dose recommendation for children who weigh ≤15 kg is 30 mg twice a day. For children who weigh >15–23 kg, the dose is 45 mg twice a day. For children who weigh >23–40 kg, the dose is 60 mg twice a day. And, for children who weigh >40 kg, the dose is 75 mg twice a day.

Source: CDC. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2002;51(No. RR-3):18.

2002-2003 Influenza Vaccine Manufacturers/Distributors

Aventis-Pasteur, Inc. (*Fluzone*®) 1-800-VACCINE (1-800-822-2463)

Evans Vaccine, Ltd. (*Fluvirin*®) 1-800-200-4278

Wyeth-Lederle (*Flushield*™) 1-800-358-7443

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Influenza and Immunization Resources

The CDC's 2002 report, Prevention and Control of Influenza, Recommendations of the Advisory Committee on Immunization Practices (ACIP), (MMWR Volume 51, No. RR-3) includes information on the disease, vaccine, target groups, strategies and the use of antiviral agents in preventing and/or treating influenza. **For a copy of this report, please go to the CDC website noted below or call the Immunization Program at (619) 692-8661.**

The following is a list of World Wide Web sites for accessing information and promotional materials on influenza, influenza vaccine and related topics:

www.cdc.gov/nip/Flu/Provider.htm: This is the CDC National Immunization Program's flu site, and contains information about vaccine supply, flu treatment and management, a weekly flu activity report, and other items. *New this year* is a gallery of patient educational materials developed for the 2002-2003 flu season. The gallery contains downloadable black and white master copies suitable for an office photocopier, and color masters intended for reproduction by commercial printers.

www.cdc.gov/ncidod/diseases/flu/fluvirus.htm: In addition to the CDC's influenza reports mentioned above, this site contains pneumococcal vaccine educational materials and weekly influenza surveillance reports beginning in October. This site has a wide variety of links to other sites with fact sheets for providers and patients.

www.cmri-ca.org/healthcare_prevent-immun.html: California Medical Review, Inc., the Medicare quality assurance organization, provides specific information on Medicare billing, including roster billing. "Immunization Tip Sheets for Providers" detail how to organize systems to promote flu and pneumococcal vaccines in different settings. Free postcards (non-postage-paid), pamphlets and posters for California Medicare providers can be ordered online, by phone (877-363-5555) or fax (877-364-5555). There are also many links to other sites with pertinent information.

www.sdchip.org: This site contains information about Community Health Improvement Partners (CHIP), a collaboration of health care organizations, providers and community groups working in San Diego County to increase awareness of and responsiveness to community health needs. This web site will feature a list of more than 300 locations in San Diego County where flu shots will be offered (when vaccine becomes available). Also, the site has downloadable flu and pneumococcal information in English and 7 other languages, and links to other immunization-related web sites.

www.immunization-sd.org: The San Diego County Immunization Initiative website contains immunization information specifically for local health care providers, such as flu shot clinic days, times and locations (when that information becomes available, usually in late September). There are also links to other websites, such as the CDC's influenza information site.

www.immunize.org: The Immunization Action Coalition has a wealth of print materials that can be downloaded and reproduced. Included are childhood and adult materials and official Vaccine Information Statements including, *"Influenza Vaccine, What You Need To Know"* in many languages. Note that this last document is to be given to patients to read before flu vaccine is administered. It does NOT contain an area for the patient's signature. Also, note that the California DHS web site has the version of the Vaccine Information Statement, in English and Spanish, with the consent portion attached (**http://www.dhs.ca.gov/ps/dcdc/izgroup/flu.htm**).

www.immunizeseniors.org: This site contains information especially for senior citizens, sponsored by the American Society of Consultant Pharmacists.

www.hcfa.gov/quality/3g.htm: This is the Health Care Financing Administration (HCFA) site about the influenza/pneumococcal campaign. It also contains information on Medicare, Medicaid and other programs, including how they relate to influenza vaccine. This site contains a link to **http://cms.hhs.gov**, the new site for the Centers for Medicare and Medicaid Services (CMS). CMS is HCFA's new name.

www.nfid.org: Web site of the National Foundation for Infectious Diseases (NFID), which offers information on various infectious diseases and has an "influenza web presentation."

www.nfid.org/ncai: This part of NFID's site is devoted to the National Coalition for Adult Immunization. It offers adult immunization standards, schedules, recommendations, fact sheets and more. The Coalition promotes Adult Immunization Week each October (Oct. 13-19 in 2002) and has reproducible materials available.

www.co.san-diego.ca.us/cnty/cntydepts/health/services/immunizations.html: This is the County of San Diego Health and Human Services Agency website, which has location and contact information for clinics which provide low-cost childhood and adult immunizations. *(Please note that influenza immunization clinic information will probably not be available at this site until early October, when the days, hours and locations of flu shot clinics are finalized.)*

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Source Notes

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