Vol. 19 September 2004

MaineCare UPDATE
Health Care for Maine People

MMWR Prevention and Control of Influenza

(Information for this article is from the CDC MMWR, April 30, 2004 / Volume 53;1-40. For the latest information on influenza through the internet, go to http://www.cdc.gov/flu/)

The Flu Season

In the Northern hemisphere, winter is the time for flu. In the United States, the flu season can range from November through March, and even past March in some years. During the past 21 flu seasons, months with the heaviest flu activity (peak months) occurred in December in 4 years, January in 5 years, February in 9 years, and March in 3 years.

Anyone Can Get the Flu, But the Disease Is More Severe for Some People

Most people who get influenza will recover in one to two weeks, but some people will develop life-threatening complications (such as pneumonia) as a result of the flu. Millions of people in the United States — about 10% to 20% of U.S. residents — will get influenza each year. An average of about 36,000 people per year in the United States die from influenza, and 114,000 per year have to be admitted to the hospital as a result of influenza. Anyone can get the flu (even healthy people), and serious problems from influenza can happen at any age. People age 65 years and older, people of any age with chronic medical conditions, and very young children are more likely to get complications from influenza. Pneumonia, bronchitis, and sinus and ear infections are three examples of complications from flu. The flu can make chronic health problems worse. For example, people with asthma may experience asthma attacks while they have the flu, and people with chronic congestive heart failure may have worsening of this condition that is triggered by the flu.

Target Groups for Vaccination

Persons at Increased Risk for Complications

Vaccination with inactivated influenza vaccine is recom-

MMWR *continued on page 6*

Recommedations of the Advisory Committee on Immunization Practices (ACIP)

Prepared by
Scott A. Harper, M.D.[1]
Keiji Fukuda, M.D.[1]
Timothy M. Uyeki, M.D.[1]
Nancy J. Cox, Ph.D.[1]
Carolyn B. Bridges, M.D.[2]
[1] Division of Viral and Rickettsial Diseases
National Center for Infectious Diseases
[2] Epidemiology and Surveillance Division
National Immunization Program

Summary

Recommendations by the Advisory Committee on Immunization Practices (ACIP) on the use of influenza vaccine and antiviral agents (CDC. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices [ACIP]. MMWR 2003;52[No. RR-8]:1–34). The 2004 recommendations include new or updated information regarding 1) influenza vaccine for children aged 6–23 months; 2) vaccination of health-care workers with live, attenuated influenza vaccine (LAIV); 3) personnel who may administer LAIV; 4) the 2004–05 trivalent inactivated vaccine virus strains: A/Fujian/411/2002 (H3N2)-like, A/New Caledonia/20/99 (H1N1)-like, and B/Shanghai/361/2002-like antigens (for the A/Fujian/411/2002 (H3N2)-like antigen, manufacturers may use the antigenically equivalent A/Wyoming/3/2003 [H3N2] virus, and for the B/Shanghai/361/2002-like antigen, manufacturers may use the antigenically equivalent B/Jilin/20/2003 virus or B/Jiangsu/10/2003 virus); and 5) the assessment of vaccine supply and timing of influenza vaccination. A link to this report and other information regarding influenza can be accessed at http://www.cdc.gov/flu.

Introduction

Epidemics of influenza typically occur during the winter months in temperate regions and have been responsible for an average of approximately 36,000 deaths/year in the United States during 1990–1999 (1). Influenza viruses also can cause pandemics, during which rates of illness and death from influenza-related complications can increase worldwide. Influenza viruses cause disease among all age groups (2–4). Rates of infection are highest among children, but rates of serious illness and death are highest among persons aged >65 years and persons of any age who have medical conditions that place them at increased risk for complications from influenza.

Influenza vaccination is the primary method for preventing influenza and its severe complications. In this report from the Advisory Committee on Immunization Practices (ACIP), the primary target groups recommended for annual vaccination are 1) persons at increased risk for influenza-related complications (e.g., those aged >65 years, children aged 6–23 months, pregnant women, and persons of any age with certain chronic medical conditions); 2) persons aged 50–64 years because this group has an elevated prevalence of certain chronic medical

Recommedations *continued on page 2*

Maine Department of Health and Human Services
John R. Nicholas, Commissioner • Bureau of Medical Services • Division of Health Care Management & Member Services
11 State House Station, Augusta, Maine 04333 • 800-566-3818 • TTY/TDD 800-423-4331
To receive this newsletter by mail, contact Health Care Management Unit at 207-287-8820

TABLE 3. Live, attenuated influenza vaccine (LAIV) compared with inactivated influenza vaccine

Factor	LAIV	Inactivated Influenza vaccine
Route of administration	Intranasal spray	Intramuscular injection
Type of vaccine	Live virus	Killed virus
Number of included virus strains	3 (2 influenza A, 1 influenza B)	Same as LAIV
Vaccine virus strains updated	Annually	Same as LAIV
Frequency of administration	Annually	Same as LAIV
Approved age and risk groups*	Healthy persons aged 5–49 years	Persons aged ≥6 months
Can be administered to family members or close contacts of immunosuppressed persons not requiring a protected environment	Yes	Yes
Can be administered to family members or close contacts of immunosuppressed persons requiring a protected environment (e.g., hematopoietic stem cell transplant recipient)	Inactivated influenza vaccine preferred	Yes
Can be administered to family members or close contacts of persons at high risk but not severely immunosuppressed	Yes	Yes
Can be simultaneously administered with other vaccines	Yes†	Yes§
If not simultaneously administered, can be administered within 4 weeks of another live vaccine	Prudent to space 4 weeks apart	Yes
If not simultaneously administered, can be administered within 4 weeks of an inactivated vaccine	Yes	Yes

* Populations at high risk from complications of influenza infection include persons aged ≥65 years; residents of nursing homes and other chronic-care facilities that house persons with chronic medical conditions; adults and children with chronic disorders of the pulmonary or cardiovascular systems; adults and children with chronic metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression; children and adolescents receiving long-term aspirin therapy (at risk for developing Reye syndrome after wild-type influenza infection); pregnant women; and children aged 6–23 months.

† No data are available regarding effect on safety or efficacy.

§ Inactivated influenza vaccine coadministration has been evaluated systematically only among adults with pneumococcal polysaccharide vaccine.

Recommedations *continued from page 1*

conditions; and 3) persons who live with or care for persons at high risk (e.g., health-care workers and household contacts who have frequent contact with persons at high risk and who can transmit influenza to those persons at high risk). Vaccination is associated with reductions in influenza-related respiratory illness and physician visits among all age groups, hospitalization and death among persons at high risk, otitis media among children, and work absenteeism among adults (8–18). Although influenza vaccination levels increased substantially during the 1990s, further improvements in vaccine coverage levels are needed, chiefly among persons aged <65 years who are at increased risk or influenza-related complications among all racial and ethnic groups, among blacks and Hispanics aged >65 years, among children aged 6–23 months, and among health-care workers. ACIP recommends using strategies to improve vaccination levels, including using reminder/recall systems and standing orders programs. Although influenza vaccination remains the cornerstone for the control and treatment of influenza, information on antiviral medications is also presented because these agents are an adjunct to vaccine.

Primary Changes and Updates in the Recommendations

The 2004 recommendations include four principal changes or updates:

1. ACIP recommends that healthy children aged 6–23 months, and close contacts of children aged 0–23 months, be vaccinated against influenza (see Target Groups for Vaccination).

2. Inactivated vaccine is preferred over live, attenuated influenza vaccine (LAIV) for vaccinating household members, health-care workers, and others who have close contact with severely immunosuppressed persons during periods when such persons require care in a protected environment. If a health-care worker receives LAIV, the health-care worker should refrain from contact with severely immunosuppressed patients for 7 days after vaccine receipt. No preference exists for inactivated vaccine use by health-care workers or other persons who have close contact with persons with lesser degrees of immunosuppression.

Recommedations *continued on page 4*

TABLE 4. Inactivated influenza vaccine* dosage, by age group — United States, 2004–05 season

Age group†	Dose	No. 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

* A 5-mL dose contains 15 mg each of A/Fujian/411/2002 (H3N2)-like, A/New Caledonia/20/99 (H1N1)-like, and B/Shanghai/361/2002-like antigens. For the A/Fujian/411/2002 (H3N2)-like antigen, manufacturers may use the antigenically equivalent A/Wyoming/3/2003 (H3N2) virus, and for the B/Shanghai/361/2002-like antigen, manufacturers may use the antigenically equivalent B/Jilin/20/2003 virus or B/Jiangsu/10/2003 virus. Manufacturers include Aventis Pasteur, Inc. (FluZone® split virus); and Chiron (Fluvirin™ purified surface antigen vaccine). FluZone is approved by the Food and Drug Administration for use among persons aged ≥6 months. Fluvirin is approved for use among persons aged ≥4 years. For further product information, call Aventis Pasteur at 800-822-2463 or Chiron at 800-200-4278.

† Because of their decreased potential for causing febrile reactions, only split-virus vaccines should be used for children aged <13 years. Whole-virus vaccine is not available in the United States. Split-virus vaccine 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.

§ 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.

Influenza Vaccine Bulletin #2

Influenza Vaccine Supply and Production
Vaccine Distribution and Administration

The National Immunization Program (NIP) of the Centers for Disease Control and Prevention (CDC) publishes and distributes periodic bulletins to update partners about recent developments related to the production, distribution, and administration of influenza vaccine. All recipients of this bulletin are encouraged to distribute each issue widely to colleagues, members and constituents.

Influenza Vaccine Supply and Production

2004-2005 Influenza Vaccine Production

Vaccine production is on schedule, and no delays are anticipated, according to the Food and Drug Administration (FDA) and vaccine manufacturers. However, it is still early in the manufacturing process, and issues can arise. The Influenza Bulletin provides regular updates on the status of vaccine production. The three manufacturers of influenza vaccine anticipate total influenza vaccine production of between 90 and 100 million doses. Between six and eight million of those doses will include reduced amounts of thimerosal.

Place Orders for Influenza Vaccine!

In order to ensure the availability of influenza vaccine for administration in the fall of 2004, healthcare providers should order supplies of influenza vaccine now if orders have not been placed. Last year, cases of influenza began to appear in October with widespread activity in November and December. Because increased demand for vaccine is anticipated, healthcare providers who care for Medicare beneficiaries and others at high risk for complications from influenza must prepare for the upcoming influenza season immediately.

Additional information on sources of vaccine can be found at www.hidanetwork.com/govtrelations/flulinks.asp, a service provided by the Health Industry Distributors Association.

Influenza Vaccine Contracts

For 2004, CDC contracts have a maximum quantity of 6.75 million doses, up from 4.8 million in 2003. These figures represent vaccine purchased with VFC, 317, or state funds for persons of all ages.

VFC Influenza Vaccine Stockpile

Demand for influenza vaccine during the 2003-2004 influenza season significantly exceeded supply. Unfortunately, the current manufacturing process does not allow for additional vaccine to be produced in a timely manner after supplies are low. These factors highlight the need for a plan to ensure availability of an adequate supply of influenza vaccine in the U.S.

In FY 2004 and FY 2005, CDC will purchase influenza vaccine for a national stockpile. This purchase was authorized by the Omnibus Reconciliation Act (OBRA) of 1993 which allows CDC to use Vaccines for Children (VFC) program funds for stockpile purchases. This stockpile, because it is funded through the VFC program, can only be used to provide vaccine to VFC eligible children 18 years of age and younger. Approximately 54 percent of U.S. children would be eligible.

In FY 2004, $40 million in VFC program funds has been provided for the influenza stockpile. Based on discussions with vaccine manufacturers, CDC estimates purchasing approximately 4 to 4.5 million doses of influenza vaccine for the stockpile.

In FY 2005, $40 million in VFC program funds was included in the President's Budget request. The exact number of doses to be purchased in 2005 will ultimately depend on manufacturers' production and timing capacity and will not be known until they respond to the FY 2005 contract solicitation in May, 2005.

In the event that influenza vaccine demand exceeds supply, the VFC-eligible children for whom the vaccine is recommended will have priority access to the stockpile. As determined by CDC, VFC stockpile vaccine may be made available to state and local health departments and manufacturers for distribution. If no influenza vaccine supply shortage occurs, CDC will attempt to distribute the stockpiled vaccine in consultation with the manufacturers.

Influenza Vaccine Distribution and Administration

2004 Influenza Vaccination Recommendations of the Advisory Committee on Immunization Practices (ACIP)

Recommendations have been broadened to protect more people from influenza. The Centers for Disease Control and Prevention (CDC) has adopted the following recommendations.

- Children 6 months to 23 months of age should be vaccinated annually against

Bulletin *continued on page 6*

Blood Lead Screening Rates

MaineCare Lead Testing rates among FP/GPs and Pediatricians, 10/01/2002 - 09/30/2003.

Rank	Family Practice/GP	Age One	% with 1+ Test
1	Michael Lambke	18	83.3%
2	Jonathan P. Shill	11	81.8%
3	Tariq S. Akbar	12	75.0%
4	Eugene P. Paluso	27	74.1%
5	Gust S. Stringos	23	69.6%
6	Timothy Theobald	12	66.7%
7	D.L. Jeannotte	18	66.7%
8	Anne D. Tuddenham	49	63.3%
9	Tara M. Nolan	16	62.5%
10	Sean T. Maloney	16	62.5%

Rank	Family Practice/GP	Age Two	% with 1+ Test
1	Timothy Theobald	20	65.0%
2	D.L. Jeannotte	17	58.8%
3	Noah Nesin	16	56.3%
4	Charles Parent	13	53.8%
5	Kamlesh N. Bajpai	26	50.0%
6	Jonathan P. Shill	12	50.0%
7	Eugene P. Paluso	27	48.1%
8	Lawrence H. Dubien	24	45.8%
9	Ann Dorney	16	43.8%
10	Anne D. Tuddenham	43	41.9%

Rank	Pediatrics	Age One	% with 1+ Test
1	Marisa Flores	45	82.2%
2	Thomas G. Brewster	25	80.0%
3	Rochester Ped. Assoc.	10	80.0%
4	Jill A. Gabrielsen	10	80.0%
5	Kimberly MacDonald	24	79.2%
6	Donald R. Burgess	33	78.8%
7	Connor M. Moore	27	77.8%
8	Faith Wilfley	67	77.6%
9	Gautam S.S. Popli	69	76.8%
10	Ann P. Simmons	70	75.7%

Rank	Pediatrics	Age Two	% with 1+ Test
1	Cindy L. Kalagher	11	90.9%
2	Donald R. Burgess	23	82.6%
3	Amelia A. Brochu	50	74.0%
4	Michael P. Hofmann	77	70.1%
5	Katarina Prokopova	10	70.0%
6	Ann P. Simmons	29	69.0%
7	Scott J. Clough	68	67.6%
8	Robert E. Holmberg	30	66.7%
9	Gautam S.S. Popli	39	66.7%
10	Margaret R. Lewis	50	66.0%

Recommedations *continued from page 2*

3. Severely immunosuppressed persons should not administer LAIV. However, other persons at high risk for influenza complications may administer LAIV.

4. The 2004–05 trivalent vaccine virus strains are A/Fujian/ 411/2002 (H3N2)-like, A/New Caledonia/20/99 (H1N1)-like, and B/Shanghai/361/2002-like antigens. For the A/Fujian/411/2002 (H3N2)-like antigen, manufacturers may use the antigenically equivalent A/Wyoming/3/2003 [H3N2] virus, and for the B/Shanghai/361/2002-like antigen, manufacturers may use the antigenically equivalent B/Jilin/20/2003 virus or B/Jiangsu/10/2003 virus (see Influenza Vaccine Composition).

5. CDC and other agencies will assess the vaccine supply throughout the manufacturing period and will make recommendations in the summer preceding the 2004– 05 influenza season regarding the need for tiered timing of vaccination of different risk groups.

Strategies for Implementing Vaccination Recommendations in Health-Care Settings

Successful vaccination programs combine publicity and education for health-care workers and other potential vaccine recipients, a plan for identifying persons at high risk, use of reminder/recall systems, and efforts to remove administrative and financial barriers that prevent persons from receiving the vaccine, including use of standing orders programs. Using standing orders programs is recommended for long-term–care facilities (e.g., nursing homes and skilled nursing facilities), hospitals, and home health agencies to ensure the administration of recommended vaccinations for adults. Standing orders programs for both influenza and pneumococcal vaccination should be conducted under the supervision of a licensed practitioner according to a physician-approved facility or agency policy by health-care personnel trained to screen patients for contraindications to vaccination, administer vaccine, and monitor for adverse events. The Centers for Medicare and Medicaid Services (CMS) has removed the physician signature requirement for the administration of influenza and pneumococcal vaccines to Medicare and Medicaid patients in hospitals, long-term–care facilities, and home health agencies. To the extent allowed by local and state law, these facilities and agencies may implement standing orders for influenza and pneumococcal vaccination of Medicare- and Medicaid-eligible patients. Other settings (e.g., out-patient facilities, managed care organizations, assisted living facilities, correctional facilities, pharmacies, and adult workplaces) are encouraged to introduce standing orders programs as well. Persons for whom influenza vaccine is recommended can be identified and vaccinated in the settings described in the following sections.

Outpatient Facilities Providing Ongoing Care

Staff in facilities providing ongoing medical care (e.g., physicians' offices, public health clinics, employee health clinics, hemodialysis centers, hospital specialty-care clinics, and out-patient rehabilitation programs) should identify and label the medical records of patients who should receive vaccination. Vaccine should be offered during visits beginning in September and throughout the influenza season. The offer of vaccination and its receipt or refusal should be documented in the medical record. Patients for whom vaccination is recommended and who do not have regularly scheduled visits during the fall should be reminded by mail, telephone, or other means of the need for vaccination.

Outpatient Facilities Providing Episodicor Acute Care

Beginning each September, acute health-care facilities (e.g., emergency rooms and walk-in clinics) should offer vaccinations to persons for whom vaccination is recommended or provide written information regarding why, where, and how to obtain the vaccine. This written information should be available in languages appropriate for the populations served by the facility.

Nursing Homes and Other Residential Long-Term–Care Facilities

During October and November each year, vaccination should be routinely provided to all residents of chronic-care facilities with the concurrence of attending physicians. Consent for vaccination should be obtained from the resident or a family member at the time of admission to the facility or anytime afterwards. All residents should be vaccinated at one time, preceding the influenza season. Residents admitted through March after completion of the facility's vaccination program should be vaccinated at the time of admission.

Acute-Care Hospitals

Persons of all ages (including children) with high-risk conditions and persons aged >50 years who are hospitalized at any time during September–March should be offered and strongly encouraged to receive influenza vaccine before they are discharged. In one study, 39%–46% of adult patients hospitalized during the winter with influenza-related diagnoses had been hospitalized during the preceding autumn. Thus, the hospital serves as a setting in which persons at increased risk for subsequent hospitalization can be identified and vaccinated. However, vaccination of persons at high risk during or after their hospitalization is often not done. In a study of hospitalized Medicare patients, only 31.6% were vaccinated before admission, 1.9% during admission, and 10.6% after admission. Using standing orders in hospitals increases vaccination rates among hospitalized persons.

Recommedations *continued on page 5*

TABLE 7. 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 body weight/ day up to 150 mg in 2 divided doses†	5 mg/kg body weight/ day up to 150 mg in 2 divided doses†	100 mg twice daily§	100 mg twice daily§	≤100 mg/day
Prophylaxis, influenza A	5 mg/kg body weight/ day up to 150 mg in 2 divided doses†	5 mg/kg body weight/ day up to 150 mg in 2 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 body weight/ day up to 150 mg in 2 divided doses†	5 mg/kg body weight/ day up to 150 mg in 2 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); USL Pharma (Amantadine HCL — capsule and tablet); and Alpharma, Copley Pharmaceutical, HiTech Pharma, Mikart, Morton Grove, Carolina Medical, and Pharmaceutical Associates (Amantadine HCL — syrup). Rimantadine is manufactured by Forest Laboratories (Flumadine® — tablet and syrup) and Corepharma, Impax Labs (Rimantadine HCL — tablet), and Amide Pharmaceuticals (Rimantadine ACL — 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 http://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 body weight 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 body weight/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: 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.

Recommedations *continued from page 4*

Visiting Nurses and Others Providing Home Care to Persons at High Risk

Beginning in September, nursing-care plans should identify patients for whom vaccination is recommended, and vaccine should be administered in the home, if necessary. Caregivers and other persons in the household (including children) should be referred for vaccination.

Other Facilities Providing Services to Persons Aged >50 Years

Beginning in October, such facilities as assisted living housing, retirement communities, and recreation centers should offer unvaccinated residents and attendees vaccination on-site before the influenza season. Staff education should emphasize the need for influenza vaccine.

Health-Care Personnel

Beginning in October each year, health-care facilities should offer influenza vaccinations to all personnel, including night and weekend staff. Particular emphasis should be placed on providing vaccinations to persons who care for members of groups at high risk. Efforts should be made to educate health-care personnel regarding the benefits of vaccination and the potential health consequences of influenza illness for them-selves and their patients. All health-care personnel should be provided convenient access to influenza vaccine at the work site, free of charge, as part of employee health programs.

The material is this report originated in the National Center for Infectious Diseases, James M. Hughes, M.D., Director, and the Division of Viral and Rickettsial Diseases, James LeDuc, Ph.D., Director; and the National Immunization Program, Stephen Cochi, M.D., Acting Director, and Epidemiology and Surveillance Division, Melinda Wharton, M.D., Director.

MMWR *continued from page 1*

mended for the following persons who are at increased risk for complications from influenza:

- persons aged >65 years;
- residents of nursing homes and other chronic-care facilities that house persons of any age who have chronic medical conditions;
- adults and children who have chronic disorders of the pulmonary or cardiovascular systems, including asthma;
- adults and children who have required regular medical follow-up or hospitalization during the preceding year because of chronic metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications or by human immunodeficiency virus [HIV]);
- children and adolescents (aged 6 months--18 years) who are receiving long-term aspirin therapy and, therefore, might be at risk for experiencing Reye syndrome after influenza infection;
- women who will be pregnant during the influenza season; and
- children aged 6--23 months.

In 2000, approximately 73 million persons in the United States were included in one or more of these target groups, including 35 million persons aged >65 years, 12 million adults aged 50--64 years, 18 million adults aged 18--49 years, and 8 million children aged 6 months--17 years with one or more medical conditions that are associated with an increased risk for influenza-related complications.

Persons Aged 50--64 Years

Vaccination is recommended for persons aged 50--64 years because this group has an increased prevalence of persons with high-risk conditions. In 2000, approximately 42 million persons in the United States were aged 50--64 years, of whom 12 million (29%) had one or more high-risk medical conditions. Influenza vaccine has been recommended for this entire age group to increase the low vaccination rates among persons in this age group with high-risk conditions. Age-based strategies are more successful in increasing vaccine coverage than patient-selection strategies based on medical conditions. Persons aged 50--64 years without high-risk conditions also receive benefit from vaccination in the form of decreased rates of influenza illness, decreased work absenteeism, and decreased need for medical visits and medication, including antibiotics. Further, 50 years is an age when other preventive services begin and when routine assessment of vaccination and other preventive services has been recommended.

Persons Who Can Transmit Influenza to Those at High Risk

Persons who are clinically or subclinically infected can transmit influenza virus to persons at high risk for complications from influenza. Decreasing transmission of influenza from caregivers and household contacts to persons at high risk might reduce influenza-related deaths among persons at high risk. Evidence from two studies indicates that vaccination of health-care personnel is associated with decreased deaths among nursing home patients. Health-care workers should be vaccinated against influenza annually. Facilities that employ heath-care workers are strongly encouraged to provide vaccine to workers by using approaches that maximize immunization rates. This will protect health-care workers, their patients, and communities, and will improve prevention, patient safety, and reduce disease burden. Health-care workers' influenza immunization rates should be regularly measured and reported. Although rates of health-care worker vaccination are typically <40%, with moderate effort, organized campaigns can attain higher rates of vaccination among this population.

The following groups should be vaccinated:

- physicians, nurses, and other personnel in both hospital and outpatient-care settings, including medical emergency response workers (e.g., paramedics and emergency medical technicians);
- employees of nursing homes and chronic-care facilities who have contact with patients or residents;
- employees of assisted living and other residences for persons in groups at high risk;
- persons who provide home care to persons in groups at high risk; and
- household contacts (including children) of persons in groups at high risk.

In addition, because children aged 0--23 months are at increased risk for influenza-related hospitalization, vaccination is recommended for their household contacts and out-of-home caregivers, particularly for contacts of children aged 0--5 months, because influenza vaccines have not been approved by FDA for use among children aged <6 months.

Healthy persons aged 5--49 years in these groups who are not contacts of severely immunosuppressed persons can receive either LAIV or inactivated influenza vaccine. All other persons in this group should receive inactivated influenza vaccine.

Bulletin *continued from page 3*

influenza.

- Household contacts and out-of-home caregivers of children 0 to 23 months of age should be vaccinated annually to prevent these contacts from infecting young children with influenza.

Other changes from last year's recommendations include the composition of the influenza vaccine for the 2004-2005 season and clarification about the use of live, attenuated influenza vaccine in healthcare workers and close contacts of severely immunosuppressed persons. Review the ACIP Recommendations at www.cdc.gov/mmwr/pdf/rr/rr53e430.pdf

Update on Medicare Payment for Influenza Vaccine Purchase and Administration

The basis for Medicare payment of influenza vaccine will continue to be 95% of the average wholesale price, as stated by the Centers for Medicare and Medicaid Services (CMS) at www.cms.hhs.gov/medlearn/refimmu.asp

MedImmune Reacquires Rights to FluMist from Wyeth

On April 26, 2004, MedImmune, Inc. and Wyeth announced the dissolution of their collaboration for the nasal influenza vaccine, FluMist (Influenza Virus Vaccine Live, Intranasal) and an investigational second-generation liquid formulation, Cold Adapted Influenza Vaccine-Trivalent (CAIV-T). As a result of the dissolution, subject to obtaining necessary government approval, MedImmune will have worldwide rights to these products and will assume full responsibility for the manufacturing, marketing, and selling of FluMist.

As part of the dissolution process, MedImmune will acquire Wyeth's distribution facility in Louisville, Kentucky. Wyeth is providing bulk manufacturing materials and will transfer clinical trial data, as well as provide manufacturing services, during a transition that the companies expect to complete in large part by fourth quarter 2004.