



City Health Information

September 2006

The New York City Department of Health and Mental Hygiene

Vol. 25(8):59-64

INFLUENZA: PREVENTION AND CONTROL

KEY MESSAGES FOR THE 2006–2007 SEASON

- Recommend a flu vaccine as vigorously as you would any life-saving measure.
- All children aged 6 months until their fifth birthday should receive an annual flu vaccine.
- All persons with an indication for an annual flu vaccination should receive one. Unlike previous flu seasons, there is no recommendation to prioritize use for flu vaccine in 2006–2007.
- Make sure you and your staff get flu shots early in the season. All health care workers should be vaccinated.
- Continue to vaccinate against flu into the late winter and spring.
- Screen all patients to determine if they should receive a pneumococcal vaccination.

Influenza causes significant illness and death. Every year, influenza leads to approximately 36,000 deaths nationwide. In 2004, influenza and pneumonia together were the third leading cause of mortality among people 65 and older in NYC, resulting in more than 3,000 fatalities.¹

Influenza vaccination is the primary method for preventing influenza and its severe complications. Health care providers can reduce illness and death from influenza and pneumonia by providing influenza and pneumococcal vaccines to *all* people with an indication for vaccination. **Ensure that all people who need flu vaccine (Table 1) are immunized.**

IMPACT OF INFLUENZA INFECTION

Individuals of any age can get influenza. In the United States, approximately 10% to 20% of all adults and up to 40% of all children are infected with influenza annually. Rates of serious illness and death are highest among people 65 years and older, young children, and people of any age with certain underlying medical conditions²⁻⁶ (Table 2).

Table 1. Who Should Receive an Annual Flu Vaccine?

- All children aged 6 months until their fifth birthday
- All pregnant women, at any stage of pregnancy
- All people aged 50 years and older
- All people aged 5 to 49 years with certain chronic medical conditions (Table 2)
- All residents of nursing homes, chronic care facilities, and other long-term care facilities, who are at least 6 months of age
- All out-of-home caregivers and household contacts of high-risk individuals, including contacts of children under 5 years of age
- All health care workers



Table 2. Chronic Medical Conditions That Are Indications for an Annual Flu Vaccination

- Cardiovascular disease
- Pulmonary disorders, including emphysema and asthma
- Chronic metabolic diseases, including all types of diabetes mellitus
- Renal disease (renal failure or renal dysfunction)
- Hemoglobinopathies (eg, sickle cell disease, thalassemia)
- Immune dysfunction, including immunodeficiency caused by HIV infection or immunosuppressive therapy (eg, radiation therapy, chemotherapy, high-dose steroids, or immunomodulating medications)
- Any condition that can compromise respiratory function, the handling of respiratory secretions, or that increases the risk for aspiration (eg, cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders)
- Medical conditions treated with long-term aspirin therapy in children 6 months through 18 years, because of the potential risk of influenza-associated Reye syndrome

Although hospitalization rates vary from year to year, in the United States there are an average of 226,000 influenza-related excess hospitalizations annually; almost two thirds of these hospitalizations are among people 65 years and older.³ Young children, especially those from birth until their fifth birthday, have hospitalization rates comparable to those of people 65 years and older.⁴⁻⁶

Influenza-related deaths result from complications of flu, such as pneumonia, and from exacerbations of underlying medical conditions, especially those involving the cardiac and respiratory systems.

FLU VACCINE COVERAGE IN NEW YORK CITY

Among people 65 years and older, the use of flu vaccine is far below the national goal of 90%.⁷ In annual telephone surveys of NYC residents, only 54% of adults 65 years and older reported having received a flu shot in the 2004–2005

flu season, down from 65% in prior years.⁸ While the 2004–2005 flu season was notable because only half of the expected flu vaccine was available and vaccine was directed preferentially to seniors, vaccine rates for this high-risk group remained low.

Influenza vaccination rates vary by race and by neighborhood. Only 49% of black New Yorkers 65 years and older reported being vaccinated, compared with 57% of whites. Immunization rates were also substantially lower than recommended targets for people with high-risk conditions. In 2003–2004, only 49% of all NYC adults with diabetes and only 49% of adults with asthma reported having received vaccine. Studies have consistently shown that children with asthma and other chronic diseases also do not receive influenza vaccination as recommended, with coverage ranging from only 10% to 25%.^{9,10}

ROLE OF THE HEALTH CARE PROFESSIONAL IN PREVENTING INFLUENZA

When physicians actively encourage flu vaccination, patients are more likely to accept the recommendation.¹¹ Recommending flu vaccine should be considered as important as recommending any other life-saving measure.

All health care workers (all paid and unpaid staff, volunteers, and home care attendants) in all types of health care settings (hospitals, outpatient facilities, emergency departments, emergency medical services, clinics, offices, long-term care facilities, and assisted living settings) should receive an annual flu vaccine. Vaccination of health care workers protects the health care worker, their patients, and their own families. Health care providers and all staff should receive their flu vaccination early in the season to prevent the spread of illness to high-risk patients.

Vaccination of health care workers reduces mortality in nursing homes by about 40%,^{12,13} and reduces staff illness and absenteeism by about 50%. However, less than half of all health care workers are vaccinated nationally,¹³ and only 33% are vaccinated in NYC.⁸ Be a role model; ensure that you and any of your family members with an indication for flu vaccine receive it, and tell your patients that you have done so. Stress that it is a priority for you, your colleagues, and your staff.

The Healthcare Infection Control Practices Advisory Committee (HICPAC) and the Advisory Committee on Immunization Practices (ACIP) have stressed the importance of influenza vaccination for all health care workers (Table 3).¹⁴ Both committees recommend that health care facilities:

- Offer vaccine to their employees on site as a benefit of employee health programs;
- Obtain signed “Refusal to Receive Vaccination” forms (available at www.nyc.gov/html/doh/downloads/pdf/imm/immiv-refusal.pdf) from those who decline immunization;
- Use health care worker influenza vaccination coverage as part of a measure of patient safety and quality programs.

Effective January 2007, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) will require that all facilities offer influenza vaccine on site to staff.¹⁵ Summary recommendations for specific actions in the health care setting are listed in Table 3 and also at www.nfid.org/pdf/publications/calltoaction.pdf.

FLU VACCINE: AVAILABILITY AND TIMING

Although influenza vaccine may initially become available from the middle to the end of September, supply is usually most plentiful later in the calendar year, often in November and December, prior to the onset of peak flu activity. Four manufacturers are expected to provide approximately 100 million doses of influenza vaccine to the US market during the 2006–2007 influenza season (Table 4). The final number of doses and the timing of vaccine distribution are not yet known.

Unlike in previous flu seasons, there are no recommendations to prioritize use of vaccine in 2006–2007. Vaccinate patients as vaccine becomes available. Everyone who wants a flu vaccine should get vaccinated. In past years, despite vaccine shortages, influenza vaccine went unused.

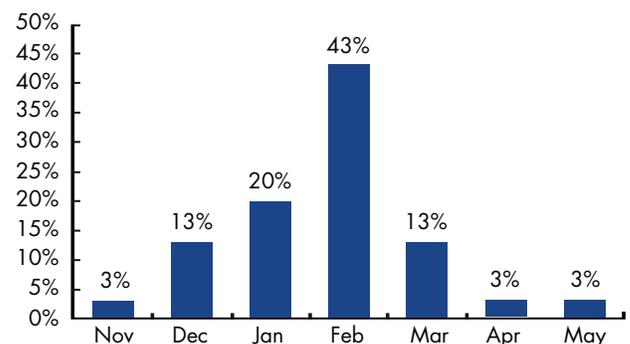
Flu vaccination season is not flu transmission season. Influenza usually does not peak until February and cases are reported into the late spring (Figure 1). In NYC, flu cases typically occur through May.

Vaccine recommendations, regular updates on flu activity, and vaccine availability will be posted at www.nyc.gov/health/flu and on the Health Alert Network (HAN) at www.nyc.gov/health/nycmed.

Table 3. Facilitating Influenza Immunization in Health Care Settings¹⁴

- Educate health care professionals about the benefits of influenza vaccination and the potential health consequences of influenza illness for themselves and their patients. Explain the epidemiology of influenza as well as modes of transmission, diagnosis, treatment, and non-vaccine infection control strategies.
- Offer influenza vaccine annually to all eligible health care professionals to protect staff, patients, and family members, and to decrease health care professional absenteeism.
- Provide influenza vaccination to health care professionals at the work site and at no cost as one component of employee health programs. Use strategies that have been demonstrated to increase influenza vaccination acceptance, including vaccination clinics, mobile carts, vaccination access during all work shifts, and modeling and support programs by institutional leaders.
- Obtain signed declination forms from health care employees who decline influenza vaccination.
- Monitor health care workforce influenza vaccination coverage and declination at regular intervals during influenza season, and provide feedback of ward-, unit-, and specialty-specific rates to staff and administration.
- Use the number of health care employees vaccinated as one measure of a patient safety quality program.

Figure 1: Month of Peak Influenza Activity, United States, 1976–2006^{16*}



* Data included is for 30 flu seasons from 1976-1977 through 2005-2006

CDC

LIVE ATTENUATED INTRANASAL INFLUENZA VACCINE

FluMist[®], a live attenuated intranasal influenza vaccine (LAIV), was licensed in 2003 for use in healthy people aged 5 to 49 years. This is an alternative to the flu injection for healthy contacts of most high-risk individuals, including caregivers and household contacts of infants and young children, as well as for health care workers. Use of LAIV provides an option for those who defer vaccination because of an aversion to injections. FluMist[®] is not licensed for use in immunocompromised patients, those with chronic medical conditions, or pregnant women. LAIV may be administered to all healthy, nonpregnant health care workers under 50 years of age, except those in direct contact with severely immunosuppressed patients (those requiring protective isolation). There has been no shortage of FluMist[®]; much of the available supply went unused last season. For more information, see www.cdc.gov/flu/about/qa/nasalspray.htm.

CONTRAINDICATIONS AND PRECAUTIONS TO VACCINE

Influenza vaccines, both the inactivated influenza vaccine (TIV) and LAIV, should not be administered to any person who has had an anaphylactic reaction to eggs or to other components of the specific vaccine. Allergic reactions are very rare. Soreness or local irritation at the site of injection is reported by 15% to 20% of vaccine recipients after receiving a flu shot. Fever and malaise are uncommon and are usually seen in individuals with no prior exposure to the influenza virus antigens in the vaccine, especially young children.

ANTIVIRAL AGENTS

There are currently 4 licensed agents effective against influenza — amantadine, rimantadine, zanamivir, and oseltamivir. All 4 agents are pregnancy Category C (pregnancy and fetal risks are presently unknown; medications should be used only if potential benefits outweigh possible risks). These agents are not a substitute for vaccination, and widespread use is discouraged to avoid adverse side effects and the development of drug-resistant viral strains. Treatment with antiviral drugs for influenza is an adjunct to influenza vaccine for the prevention and control of influenza. Amantadine and

rimantadine should not be used for the treatment or chemoprophylaxis of influenza A in the US because of recent data indicating widespread resistance of these viruses to these medications.

Treatment with one class of antiviral agents, the neuraminidase inhibitors, has been shown to decrease severe complications resulting from flu, such as pneumonia and bronchitis, and to reduce hospitalizations if used early in the course of disease. Antiviral agents remain an important tool to control influenza outbreaks in institutions.

For detailed information on the use of antiviral agents in influenza treatment and prophylaxis, adverse effects, contraindications, and dosage (including adjustments for people 65 years and older, those with impaired renal function and/or liver disease, or people with seizure disorders), visit www.cdc.gov/flu/professionals/treatment.

ORDERING INFLUENZA VACCINE

For up-to-date information about the purchase of influenza vaccine, go to www.nyc.gov/health/flu or call the Provider Access Line (**Resources**).

For all eligible children and adolescents, vaccine must be ordered through the Vaccines for Children (VFC) program. Effective August 1, 2006, vaccines administered to all children who are covered by Child Health Plus B must be ordered through the VFC program. Please call the VFC program at (212) 447-8175 for additional information.

REPORTING AND SURVEILLANCE

The NYC Department of Health and Mental Hygiene (DOHMH), along with many partners, intensively monitors influenza activity. Throughout the flu season, regular updates on levels of flu activity and vaccine availability are provided to health care providers, hospitals, and nursing homes on the HAN and on the flu Web site, www.nyc.gov/health/flu. Hospitals and nursing homes must report all laboratory-confirmed nosocomial cases of influenza (not just outbreaks), as well as any increased incidence of influenza-like illness (temperature 100°F, with cough or sore throat, in the absence of another known etiology) by completing the Nosocomial Report Form DOH 4018 and faxing it to the New York State Department of Health, Bureau of Communicable Disease

QUICK GUIDE TO IMPROVING INFLUENZA VACCINATION COVERAGE

OFFICE-BASED STRATEGIES TO INCREASE INFLUENZA VACCINATION

Influenza vaccine coverage remains far below target among all who are indicated to receive vaccine. Despite the importance of vaccination, many offices do not have systems in place to identify and vaccinate all patients who should receive an annual flu vaccine. Approximately 80% of all influenza vaccine is received in medical offices.¹⁷

Prepare

- Be sure you and your staff receive influenza vaccination early in the season.
- Ensure that your staff know how to properly handle and store vaccine. For more information, visit www.immunize.org/catg.d/p3035chk.pdf.
- Place labels or stickers on patients' charts or, if the technology is available, embed a reminder in the electronic files of high-risk patients to identify them as needing flu vaccination.
- Use reminder/recall systems, such as mailed postcards or computerized record reminder systems.¹⁸
- Use standing orders in all large practices, ambulatory care centers, inpatient facilities, emergency departments, and long-term care facilities (for a sample template, visit www.nyc.gov/html/doh/downloads/pdf/imm/influenza-so2003.pdf).
- Expand access to influenza vaccine by offering additional services, such as walk-in clinics, express-lane vaccination services, or weekend and evening clinics.

Promote

- Get vaccinated yourself and insist that your staff and patients, "Get your flu shot, today."
- Recommend vaccination to your patients – doing so increases vaccination coverage.¹⁹
- Flu vaccine is life saving – offer vaccination as you would other critical treatment or intervention.

Provide

- Give your patients health education materials about the importance of the influenza vaccine and provide materials in your waiting room. Discuss the information with patients. For a list of materials, go to www.nyc.gov/html/doh/html/imm/flu-ptk5.shtml. These are available in bulk quantities by calling 311.
- Provide a Vaccine Information Statement (VIS) for patients to read before they are vaccinated. The VIS form is available in 23 different languages as well as in an audio/multimedia format at www.immunize.org/VIS.
- Use "The Vaccine Administration Record for Adults" or a preventive services flow sheet for specific tracking of vaccines administered to a given patient (form available at www.nyc.gov/html/doh/downloads/pdf/imm/imm-var.pdf).
- If your patients or staff refuse a flu vaccine, have them sign a "Refusal to Receive Vaccination" form to let them know you are serious about the importance of influenza vaccine (refusal form template available at www.nyc.gov/html/doh/downloads/pdf/imm/immiv-refusal.pdf).
- Give your patients a copy of their immunization record. Use the Take Care New York (TCNY) Passport, available through the Provider Access Line (**Resources**).

Progress

- Monitor how well your practice is doing. Simple methods, such as tracking yearly doses of flu vaccine administered, or conducting quick chart reviews, can be helpful.
- Determine what percent of eligible patients identified at the start of the flu season received vaccine. Improve this percentage season to season.

All immunizations administered to children and adolescents under 19 years of age must be reported to the Citywide Immunization Registry (CIR). Immunizations administered to those 19 years and older may be reported with consent documented in the medical record.²⁰ For information, call the CIR at (212) 676-2323.

BARRIERS TO INFLUENZA VACCINATION AND SUGGESTED SOLUTIONS

Barrier

Many patients avoid flu shots because they believe that getting vaccinated can give them the flu, or because they are afraid of injections.

Solution

- Educate patients about the safety and proven effectiveness of flu shots.
- Emphasize that one cannot get the flu from the flu shot.
- Offer FluMist® as an alternative to a shot.

Clinicians are unfamiliar with specific populations recommended to receive an annual vaccine.

- To better identify patients in your practice who need an annual vaccine, be sure that you and your staff are familiar with all targeted populations.
- Use easy pocket guides for reference. See www.immunize.org/fluguide/pocketguide.pdf.
- Place vaccination recommendations in prominent locations in examination and waiting rooms.

There are time constraints during office visits.

- Be sure vaccination information is readily available in your reception area and waiting room.
- Streamline your office procedures:
 - Review charts of your scheduled patients in advance to determine who is due for flu and/or pneumococcal vaccine.
 - Have your nurse offer vaccine while the patient is having vital signs checked.

There is not enough vaccine for all patients in practice.

- Plan ahead – estimate the number of patients who should be vaccinated and order accordingly.
- If you need more vaccine, visit www.nyc.gov/health/flu.

There is no systematic tracking of high-risk patients.

- Implement a technique to identify patients and flag their charts when vaccination is indicated.
- For a template of chart stickers, visit www.nyc.gov/html/doh/downloads/pdf/imm/ptk-1-doublecheck.doc.
- Set targets and monitor your progress.

Detach here

TABLE 4. Approved Influenza Vaccines by Age Group – United States, 2006-2007 Season*

Vaccine [†]	Trade name	Manufacturer	Dose/Presentation	Age group	Doses	Route
Inactivated						
TIV	Fluzone®	sanofi pasteur	0.25-mL prefilled syringe	6–35 mos	1 or 2 [†]	Intramuscular
			0.5-mL prefilled syringe	≥ 36 mos	1 or 2 [†]	Intramuscular
			0.5-mL vial	≥ 36 mos	1 or 2 [†]	Intramuscular
			5.0-mL multi-dose vial	≥ 6 mos	1 or 2 [†]	Intramuscular
TIV	Fluvirin™	Novartis (formerly Chiron)	0.5-mL prefilled syringe	≥ 4 yrs	1 or 2 [†]	Intramuscular
			5.0-mL multi-dose vial	≥ 4 yrs	1 or 2 [†]	Intramuscular
TIV	FLUARIX™	GlaxoSmithKline	0.5-mL prefilled syringe	≥ 18 yrs	1	Intramuscular
Live, attenuated						
LAIV	FluMist®	Medimmune	0.5-mL sprayer	5–49 yrs	1 or 2 [‡]	Intranasal

* Adapted from ACIP recommendations¹⁶

[†] Two doses administered at least 1 month apart are recommended for children aged 6 months to < 9 years who are receiving influenza vaccine for the first time.

[‡] Two doses administered at least 6 weeks apart are recommended for children aged 5 to < 9 years who are receiving influenza vaccine for the first time.

Use of brand names is for informational purposes only and does not imply endorsement by the New York City Department of Health and Mental Hygiene.

Control, at (518) 474-7381. For a copy of the form, go to www.health.state.ny.us/nysdoh/infection/infecreport.pdf. Questions about nosocomial influenza reporting can be directed to the NYC Influenza Surveillance Coordinator at (212) 442-9050.

In addition, providers should report all suspected influenza-related deaths in children younger than 18 years of age to the NYC DOHMH, Bureau of Communicable Diseases at (212) 788-9830, 9:00 AM to 5:00 PM, Monday through Friday. After hours, call the Poison Control Center at (212) 764-7667.

INVASIVE PNEUMOCOCCAL DISEASE

Invasive pneumococcal disease (IPD) is a life-threatening infection caused by *Streptococcus pneumoniae* that most commonly manifests as meningitis, bacteremia, or pneumonia. National estimates from population-based studies indicate that in 2002, more than 40,000 cases of IPD and 5,500 deaths occurred. More than half of these occurred in adults with an indication for the pneumococcal polysaccharide vaccine (PPV23). Older adults are at greater risk for developing IPD, and the IPD case-fatality rate among adults 65 years and older is approximately 20%, increasing to more than 40% for those 80 years and older.²¹ This rate increases significantly with underlying medical conditions, such as diabetes, chronic heart or lung disease, and malignancy or HIV.²² IPD incidence is significantly higher among blacks than whites.²²

PPV23 contains antigens identified in 88% of all IPD seen in adults. Based on evidence of effectiveness against pneumococcal bacteremia, PPV23 is recommended for all people 65 years and older and for people aged 2 to 64 years with certain high-risk conditions (Table 5).²³ Many of the same office-based strategies recommended for promoting influenza vaccination can be used to promote pneumococcal vaccination.

Table 5. Pneumococcal Polysaccharide Vaccine Recommendations²³

- All persons aged 65 years and older
- Persons aged 2 to 64 years who have chronic illness, including:
 - Cardiovascular disease (eg, congestive heart failure or cardiomyopathies)
 - Chronic pulmonary disease (eg, chronic obstructive pulmonary disease or emphysema)
 - Metabolic disease (eg, diabetes mellitus)
 - Chronic liver disease (eg, cirrhosis or alcohol-related liver disease)
 - Cerebrospinal fluid leaks
 - Functional or anatomic asplenia (eg, sickle cell disease or splenectomy)
 - Compromised immune systems (eg, HIV infection, leukemia, lymphoma, Hodgkin's disease, multiple myeloma, generalized malignancy, chronic renal failure, nephrotic syndrome, or other conditions associated with immunosuppression such as organ or bone marrow transplantation)
- Persons receiving immunosuppressive chemotherapy, including long-term systemic corticosteroids

Physicians should vaccinate all eligible patients with PPV23 at any office visit, any time of the year. Everyone should receive one dose of PPV23 at or after 65 years of age. Generally, a single dose of vaccine at or after age 65 is all that is recommended; a single revaccination is recommended no sooner than 5 years after the first dose for immunocompromised patients and for those 65 years and older who were vaccinated before age 65.

The best way to prevent annual influenza is with an annual influenza vaccine, but everyone can take these simple and effective measures to prevent or limit the spread of flu:

- Cover your sneeze or cough.
- Stay home if you're sick with fever and cough.

To reduce the spread of infection in general during flu season and year-round:

- Wash hands with soap and water or use an alcohol-based hand cleanser.

PPV23 vaccination rates remain low. In a telephone survey in 2004, only 49% of New Yorkers 65 years and older reported that they had ever received a PPV23 vaccine, while 65% reported having been vaccinated against influenza.⁸ These self-reported PPV23 vaccination rates vary by race and ethnicity and by neighborhood. Only 40% of black New Yorkers 65 years and older have been vaccinated, compared with 53% of whites. Similar to coverage rates for influenza, PPV23 immunization rates were also substantially below target for those with high-risk, chronic medical conditions. ♦

Influenza Surveillance

Become part of an active surveillance system for influenza-like illness; in less than 30 minutes a week, you can participate as a sentinel physician in an important national public health initiative. The data you provide will help us monitor the impact of influenza in NYC.

Please call Beth Nivin at 212-442-9050 or e-mail bnivin@health.nyc.gov for more information.

RESOURCES

NYC Department of Health and Mental Hygiene

- Provider Access Line, 9:00 AM to 5:00 PM: (866) 692-3641/(866) NYC-DOH1
- After business hours: (212) 764-7667
- Health Alert Network (HAN): www.nyc.gov/health/nycmed or (888) 692-6339
- E-mail questions to DOHMH: nycflu@health.nyc.gov
- Provider information: www.nyc.gov/html/doh/html/imm/imminfo.shtml

Other Organizations

- Centers for Disease Control and Prevention: (800) 232-2522 or www.cdc.gov/flu (influenza information)
- Immunization Action Coalition: www.immunize.org (influenza information)
- National Foundation for Infectious Diseases: www.nfid.org

References Available Online: www.nyc.gov/html/doh/downloads/pdf/chi/chi25-8-ref.pdf

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CME Activity Influenza: Prevention and Control, 2006-2007

1. The following individuals or groups should receive the influenza vaccine each flu season:

- A. All persons \geq 50 years of age
- B. All persons at least 6 months of age with any chronic medical condition
- C. All children aged 6 months until their fifth birthday
- D. All health care workers
- E. All persons who live with or care for high-risk individuals
- F. All of the above

2. Because young children are at an increased risk of hospitalization for complications of influenza:

- A. Influenza vaccine is recommended for all children $<$ 6 months of age.
- B. Influenza vaccine is recommended for all household contacts and out-of-home caregivers of children under 5 years of age.
- C. Influenza vaccine is recommended for all children aged 6 months until their fifth birthday.
- D. A and B
- E. B and C

3. Which of the following is a valid contraindication for a flu shot?

- A. Upper respiratory infection
- B. Pregnancy
- C. Concurrent administration of pneumococcal vaccine
- D. Anaphylactic reaction to eggs
- E. Insulin treatment for diabetes
- F. All of the above

4. Which of the following is not an indication for pneumococcal polysaccharide vaccine?

- A. Diabetes mellitus
- B. Chronic liver disease (cirrhosis)
- C. HIV infection
- D. Cerebrospinal fluid leak
- E. All of the above are valid indications

5. The live attenuated influenza vaccine:

- A. Can be used instead of the flu shot for all individuals \geq 65 years
- B. Is easy to administer to infants and toddlers
- C. Is licensed for use only in healthy individuals 5-49 years of age
- D. Is not indicated for health care workers

6. How well did this continuing education activity achieve its educational objectives?

- A. Very well
- B. Adequately
- C. Poorly

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Read this issue of *City Health Information* for the correct answers to questions. To receive continuing education credit, you must answer 4 of the first 5 questions correctly.

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1. Complete all information on the response card, including your name, degree, mailing address, telephone number, and e-mail address. PLEASE PRINT LEGIBLY.
2. Select your answers to the questions and check the corresponding boxes on the response card.
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September 30, 2007. Mail to:

- CME Administrator, NYC Dept. of Health and Mental Hygiene,
- 2 Lafayette, CN-65, New York, NY 10277-1632.

To Submit Online

Visit www.nyc.gov/html/doh/html/chi/chi.shtml to complete this activity online. Your responses will be graded immediately, and you can print out your certificate.

Continuing Education Activity

Influenza: Prevention and Control, Key Messages for the 2006-2007 Season

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CITY HEALTH INFORMATION
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Objectives

At the conclusion of the activity, the participants should be able to:

1. Describe indications for the use of flu vaccine.
2. List valid contraindications to the use of flu vaccine.
3. List targeted populations for pneumococcal polysaccharide vaccine (PPV23).

Accreditation

The DOHMH is accredited by the Medical Society of the State of New York to sponsor continuing medical education for physicians. The DOHMH designates this educational activity for a maximum of one *AMA PRA Category 1 Credit*[™]. Each physician should claim only those hours of credit that were spent on the educational activity.

Participants are required to submit name, address, and professional degree. This information will be maintained in the Department's CME program database. If you request, the CME Program will verify your participation and whether you passed the exam.

We will not share information with other organizations without your permission, except in certain emergencies when communication with health care providers is deemed by the public health agencies to be essential or when required by law. Participants who provide e-mail addresses may receive electronic announcements from the Department about future CME activities as well as other public health information.

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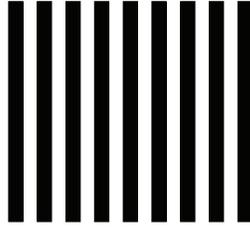
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