

Richard F. Daines, M.D.
Commissioner

Wendy E. Saunders
Chief of Staff

September 24, 2008

HEALTH ADVISORY: INFLUENZA PREVENTION AND CONTROL 2008-09

**Please distribute to the Infection Control Department, Medical Director, Director of
Nursing, Emergency Department, Employee Health, and all patient care areas**

The New York State Department of Health (NYSDOH) is providing this advisory on influenza-related activities to assist public and private health care providers in preparing for the 2008-09 influenza season. This advisory summarizes some of the key points on:

<u>Topic</u>	<u>Page</u>
1. Recommendations of the Advisory Committee on Immunization Practices	1
2. Supply of Influenza Vaccine	4
3. Distribution of Influenza Vaccine	5
4. Ordering Influenza Vaccine	5
5. Recommendations for Timing of Influenza Vaccination	6
6. 2008-09 Vaccine Information Statements	7
7. Promoting Influenza and Pneumococcal Immunization to High-Risk Groups	7
8. Hospital Inpatient Influenza and Pneumococcal Immunization Law	8
9. Long-Term Care Resident and Employee Immunization Act	8
10. Implementation of New York State Public Health Law (PHL) §2112 prohibiting the administration of vaccines containing more than trace amounts of thimerosal to children less than 3 years of age and women who know they are pregnant	8
11. Influenza Reporting Requirements	9
12. Influenza Outbreak Control in Health Care Facilities	12
13. Influenza Surveillance Summary Reports	13
14. NYSDOH and NYCDOHMH Contact Information	14

1. **Recommendations of the Advisory Committee on Immunization Practices**

The Centers for Disease Control and Prevention (CDC) published the yearly recommendations of the Advisory Committee on Immunization Practices (ACIP) on August 8, 2008 (*Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices*. MMWR 2008; August 8, 2008;57[No.RR-7]:1-60). The document is accessible at:
<http://www.cdc.gov/mmwr/PDF/rr/rr5707.pdf>.

The 2008 ACIP recommendations include five principal changes or updates:

- Beginning with the 2008-09 influenza season, annual vaccination of all children aged 5-18 years is recommended. Annual vaccination of all children aged 5-18 years should begin in September or as soon as vaccine is available for the 2008-09 influenza season, if feasible. Annual vaccination of all children aged 5-18 years should begin no later than during the 2009-10 influenza season.
- Annual vaccination of all children aged 6 months-4 years (59 months) continues to be a primary focus of influenza immunization efforts because these children are at higher risk for the complications of influenza disease compared with older children.
- Either trivalent inactivated influenza vaccine (TIV) or live attenuated influenza vaccine (LAIV) can be used when vaccinating healthy persons aged 2-49 years.
- The 2008-09 vaccine virus strains contained in both TIV and LAIV are A/Brisbane/59/2007 (H1N1)-like, A/Brisbane/10/2007 (H3N2)-like, and B/Florida/4/2006-like antigens.
- Oseltamivir-resistant influenza A (H1N1) strains have been identified in the United States and some other countries. However, oseltamivir or zanamivir continue to be the recommended antivirals for treatment of influenza because other influenza virus strains remain sensitive to oseltamivir, and resistance levels to other antiviral medications remain high.

Target Groups for Vaccination

Vaccination of all children aged 6 months to 18 years is recommended to begin during the 2008-09 influenza season if feasible, but no later than during the 2009-10 influenza season. Vaccination of all children aged 5 to 18 years is a new ACIP recommendation.

Persons at Risk for Medical Complications, More Likely to Require Medical Care

Vaccination with TIV is recommended for the following persons who are at increased risk for severe complications from influenza, or at higher risk for influenza-associated clinic, emergency department, or hospital visits:

- all children aged 6 months-4 years (59 months);
- all persons aged ≥ 50 years;
- children and adolescents (aged 6 months-18 years) who are receiving long-term aspirin therapy and who therefore might be at risk for experiencing Reye syndrome after influenza virus infection;
- women who will be pregnant during the influenza season;
- adults and children who have chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, hematological, or metabolic disorders (including diabetes mellitus);
- adults and children who have immunosuppression (including immunosuppression caused by medications or by human immunodeficiency virus);
- adults and children who have any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration; and
- residents of nursing homes and other chronic-care facilities.

Persons Who Live With or Care for Persons at High Risk for Influenza-Related Complications

To prevent transmission to persons identified above, vaccination with TIV or LAIV (unless contraindicated) also is recommended for the following persons:

- health care personnel (HCP);
- healthy household contacts (including children) and caregivers of children aged ≤ 59 months (i.e., aged < 5 years) and adults aged ≥ 50 years; and
- healthy household contacts (including children) and caregivers of persons with medical conditions that put them at higher risk for severe complications from influenza.

Influenza Vaccination of Children Aged 6 Months–8 Years

If children aged 6 months–8 years have not been vaccinated previously at any time with either TIV or LAIV, they should be given two doses of vaccine. The two doses of either TIV or LAIV should be separated by ≥ 4 weeks. If children aged 6 months–8 years received only one dose of influenza vaccine in their first year of vaccination, they should receive two doses the following year. Children recommended for vaccination who are in their third or more year of being vaccinated and who received only one dose in each of their first two years of being vaccinated should continue receiving a single annual dose.

Live Attenuated Influenza Vaccine (LAIV)

In January 2007, a new formulation of LAIV (also sold under the brand name FluMist) was licensed and replaces the older formulation available prior to the 2007-08 influenza season. The temperature at which LAIV must be shipped and stored has been changed with the newer formulation. The new formulation is shipped to end users at 35°F–46°F (2°C–8°C). It should be stored at 35°F–46°F (2°C–8°C) upon receipt, and can remain at that temperature until the expiration date is reached.

The effectiveness or safety of LAIV is not known for the following groups, and these persons should not be vaccinated with LAIV:

- persons with a history of hypersensitivity, including anaphylaxis, to any of the components of LAIV or to eggs;
- persons aged < 2 years or those aged ≥ 50 years;
- persons with any of the underlying medical conditions that serve as an indication for routine influenza vaccination, including asthma, reactive airways disease, or other chronic disorders of the pulmonary or cardiovascular systems; other underlying medical conditions, including such metabolic diseases as diabetes, renal dysfunction, and hemoglobinopathies; or known or suspected immunodeficiency diseases or immunosuppressed states;
- children aged 2-4 years whose parents or caregivers report that a healthcare provider has told them during the preceding 12 months that their child had wheezing or asthma, or whose medical record indicates a wheezing episode has occurred during the preceding 12 months;
- children or adolescents receiving aspirin or other salicylates (because of the association of Reye syndrome with wild-type influenza virus infection);
- persons with a history of Guillain-Barre Syndrome (GBS) after influenza vaccination; or
- pregnant women.

Currently, LAIV is an option for vaccination of healthy, nonpregnant persons aged 2–49 years, including HCP and other close contacts of high-risk persons. No preference is indicated for LAIV or TIV when considering vaccination of healthy, nonpregnant persons aged 2–49 years. However, during periods when inactivated vaccine is in short supply, use of LAIV is encouraged when feasible for eligible persons (including HCP) because use of LAIV by these persons might increase availability of TIV for persons in groups targeted for vaccination, but who cannot receive LAIV.

Vaccination of Close Contacts of Immunocompromised Persons

Immunocompromised persons are at risk for influenza complications but might have insufficient responses to vaccination. Close contacts of immunocompromised persons, including HCP, should be vaccinated to reduce the risk for influenza transmission. TIV is preferred for vaccinating household members, HCP, and others who have close contact with severely immunosuppressed persons (e.g., patients with hematopoietic stem cell transplants) during those periods in which the immunosuppressed person requires care in a protective environment (typically defined as a specialized patient-care area with a positive airflow relative to the corridor, high-efficiency particulate air filtration, and frequent air changes).

LAIV transmission from a recently vaccinated person causing clinically important illness in an immunocompromised contact has not been reported. The rationale for avoiding use of LAIV among HCP caring for such patients is the theoretic risk that a live, attenuated vaccine virus could be transmitted to the severely immunosuppressed person. As a precautionary measure, HCP who receive LAIV should avoid providing care for severely immunosuppressed patients for 7 days after vaccination. Hospital visitors who have received LAIV should avoid contact with severely immunosuppressed persons for 7 days after vaccination but should not be restricted from visiting less severely immunosuppressed patients.

No preference is indicated for TIV use by persons who have close contact with persons with lesser degrees of immunosuppression (e.g., persons with diabetes, persons with asthma who take corticosteroids, those who might have been cared for previously in a protective environment but who are no longer in that protective environment, or persons infected with HIV) or for TIV use by HCP or other healthy persons aged 2–49 years in close contact with persons in all other groups at high risk.

2. Supply of Influenza Vaccine

The outlook for the 2008 U.S. influenza vaccine supply appears very positive. Six companies are currently licensed by the U.S. Food and Drug Administration (FDA) to produce influenza vaccine in the U.S. market (Sanofi Pasteur, Inc.; Novartis Vaccine; GlaxoSmithKline, Inc.; ID Biomedical Corporation of Quebec; CSL Limited; and MedImmune Vaccines, Inc.) and all are working to expand their production capacities. During the 2007-08 influenza season, >130 million doses of influenza vaccine were distributed in the United States. Total production of influenza vaccine for the 2008-09 season for the U.S. is anticipated to be approximately 146 million doses, with an estimated total thimerosal- or preservative-free capacity expected to increase to 50 million doses.

The following are estimates of doses expected to be produced by each vaccine manufacturer, and are current as of August 2008:

- Sanofi Pasteur (Aventis-Pasteur):
 - 50 million doses of trivalent inactivated vaccine (TIV), Fluzone
- Novartis (Chiron):
 - 40 million doses of TIV, Fluviron
- GlaxoSmithKline:
 - 13 million doses of TIV, Fluarix
- ID Biomedical of Quebec:
 - 23 million doses of TIV, FluLaval
- CSL Limited
 - 6 million doses of TIV, Afluria
- MedImmune:
 - 14 million doses of live attenuated influenza vaccine (LAIV), FluMist

3. Distribution of Influenza Vaccine

All vaccine manufacturers are anticipating an ample supply of vaccine for the 2008-09 influenza season. A link to information on vaccine distributors is available on the New York State flu website at: <http://agingwell.state.ny.us/flu/providers/index.htm>.

- Sanofi Pasteur began shipping vaccine in early August 2008. They anticipate all vaccine to be delivered to providers by the end of October.
- Novartis/Chiron is distributing vaccine through its usual distribution network. Novartis began shipping vaccine on August 11, 2008.
- GlaxoSmithKline (GSK) will again provide two vaccine products: Fluarix, manufactured in Dresden, Germany; and FluLaval, manufactured in Laval, Quebec, Canada. Two-thirds of the GSK products will go to a pharmaceutical distributor that serves primarily nursing homes, hospitals and large private practices, and one-third to a distributor that focuses on private physicians. GSK began shipping vaccine in late August 2008.

The following FDA website provides up-to-date information on influenza vaccine lots that have been released by the FDA: <http://www.fda.gov/cber/flu/flu2008.htm>.

Information on proper handling, storage, and shipping of influenza vaccine can be found at: <http://www.cdc.gov/vaccines/hcp.htm#storage>.

4. Ordering Influenza Vaccine

Different types of vaccine providers receive their vaccine from different sources. Some health care providers get their vaccine directly from the manufacturer and some receive their vaccine from the more than 400 pharmaceutical distribution centers throughout the United States. Health care providers who have not ordered vaccine should do so as soon as possible to ensure timely receipt of vaccine. Prospective customers should check for current vaccine availability on the New York State flu website at: <http://agingwell.state.ny.us/flu/providers/index.htm>.

Ordering Influenza Vaccine through the New York Vaccines for Children Program

Influenza vaccine is available through the New York Vaccines for Children (NY VFC) Program for all eligible children, especially those who are considered high-risk, up to their 19th birthday.

NYS VFC-enrolled providers outside New York City may order influenza vaccine by calling the 1-800-KID SHOTS (1-800-543-7468) number. Providers within New York City should call 212-447-8175. Providers not enrolled who are interested in doing so may call these same numbers to receive NY VFC information and a registration packet.

5. Recommendations for Timing of Influenza Vaccination

Influenza vaccination season is not the same as influenza transmission season. Vaccination efforts should be structured to ensure the vaccination of as many persons as possible over the course of several months, with emphasis on vaccinating as many persons as possible before influenza activity in the community begins. The following recommendations reflect this phased distribution of vaccine.

In any given year, the optimal time to vaccinate patients cannot be determined because influenza seasons vary in their timing and duration, and more than one outbreak might occur in a single community in a single year. In the United States, localized outbreaks that indicate the start of seasonal influenza activity can occur as early as October. However, in >80% of influenza seasons since 1976, peak influenza activity (which is often close to the midpoint of influenza activity for the season) has not occurred until January or later, and in >60% of seasons, the peak was in February or later. In general, health care providers should begin offering vaccination soon after vaccine becomes available and if possible by October. To avoid missed opportunities for vaccination, providers should offer vaccination during routine health care visits or during hospitalizations whenever vaccine is available.

Vaccination efforts should continue throughout the influenza season, because the duration of the season varies, and influenza might not appear in certain communities until February or March. Providers should offer influenza vaccine routinely, and organized vaccination campaigns should continue throughout the influenza season, including after influenza activity has begun in the community. Vaccine administered in December or later, even if influenza activity has already begun, is likely to be beneficial in the majority of influenza seasons. The majority of adults have antibody protection against influenza virus infection within 2 weeks after vaccination.

Children aged 6 months–8 years who have not been vaccinated previously or who were vaccinated for the first time during the previous season and received only 1 dose should receive 2 doses of vaccine. These children should receive their first dose as soon after vaccine becomes available as is feasible, so both doses can be administered before the onset of influenza activity.

Persons and institutions planning substantial organized vaccination campaigns (e.g., health departments, occupational health clinics, and community vaccinators) should consider scheduling these events after at least mid-October because the availability of vaccine in any location cannot be ensured consistently in early fall. Scheduling campaigns after mid-October will minimize the need for cancellations if vaccine is unavailable. These vaccination clinics

should be scheduled through December, and later if feasible, with attention to settings that serve children aged 6–59 months, pregnant women, other persons aged <50 years at increased risk for influenza-related complications, persons aged ≥50 years, HCP, and persons who are household contacts of children aged ≤59 months or other persons at high risk. Planners are encouraged to develop the capacity and flexibility to schedule at least one vaccination clinic in December. Guidelines for planning large-scale immunization clinics are available at http://www.cdc.gov/flu/professionals/vaccination/vax_clinic.htm.

During a vaccine shortage or delay, substantial proportions of TIV doses may not be released and distributed until November and December, or later. When the vaccine is substantially delayed or disease activity has not subsided, agencies should consider offering vaccination clinics into January and beyond as long as vaccine supplies are available. Campaigns using LAIV also may extend into January and beyond.

6. 2008-09 Vaccine Information Statements

CDC's 2008-09 Vaccine Information Statements (VIS) for inactivated influenza vaccine and LAIV are available at: <http://www.cdc.gov/vaccines/pubs/vis/default.htm#flu>. These statements should be provided to all adult recipients and the parents or guardians of recipients who are minors prior to administering the vaccine.

7. Promoting Influenza and Pneumococcal Immunizations to High-Risk Groups

Many of the individuals at risk for serious influenza infection may also be at risk for pneumococcal disease and should be considered for pneumococcal vaccine in accordance with current ACIP guidelines described in the April 4, 1997, *Morbidity and Mortality Weekly Report (MMWR)*, available at: <http://www.cdc.gov/mmwr/PDF/rr/rr4608.pdf>. When indicated, influenza and pneumococcal vaccines should be administered simultaneously at different sites.

NYSDOH is committed to promoting influenza and pneumococcal immunizations to high-risk groups. In this regard, the Department endorses the work of regional adult immunization coalitions throughout the state. Providers interested in learning more about the activities of coalitions in their area are encouraged to contact their NYSDOH Immunization Program regional office (see contact list on page 14). In partnership with the New York State Office for the Aging, NYSDOH maintains a web site, at: www.flu.state.ny.us, which provides extensive information about influenza immunization to both providers and the public. The web site includes information about flu clinic schedules and locations through Internet links to sites with information on influenza disease and vaccination. Additional provider resources include a listing of influenza vaccine distributors, sample standing orders, and educational materials for providers and patients. Immunization toolkits to help hospitals, nursing homes, and health care providers implement effective influenza and pneumococcal immunization practices are available at: <http://www.health.state.ny.us/prevention/immunization/toolkits/>.

As an additional resource, the New York City Department of Health and Mental Hygiene (NYCDOHMH) provides an abundance of information regarding influenza immunization on their web site at: <http://www.nyc.gov/html/doh/html/imm/fluhome.shtml>.

8. Hospital Inpatient Influenza and Pneumococcal Immunization Law

In 2006, New York State Public Health Law amendment #2805-h became effective. The law requires all hospitals in New York State to offer influenza and pneumococcal vaccination, per ACIP recommendations, to patients aged 65 years or older who are admitted to the hospital. Influenza vaccine should be offered annually between September 1 and April 1. Pneumococcal vaccine should be offered year-round. Allowances are made if there is a shortage or delayed supply of either vaccine. The law authorizes hospitals to implement a non-patient-specific standing order policy to help accomplish such immunizations. Complete information regarding the law and its implementation is available in a Dear Administrator Letter (DAL) dated March 5, 2007, which is posted on the NYSDOH's Health Provider Network (HPN) at:

https://commerce.health.state.ny.us/hpn/hco/dals/dal_07-06h_immunization.pdf.

9. Long-Term Care Resident and Employee Immunization Act

Since 2000, New York State Public Health Law has required nursing homes, adult homes, adult day health care programs, enriched housing programs, and any residence housing five or more persons over age 65 to provide or arrange for influenza vaccination annually to their residents and employees. Vaccination helps protect the elderly (who are more likely to suffer severe health consequences from influenza) and helps prevent staff from becoming infected and transmitting influenza to this vulnerable population. Facilities must document receipt of annual immunization, deferral, or refusal of immunization for residents and staff, and must submit an annual report to the NYSDOH of the numbers of residents and staff vaccinated and not vaccinated. Additional information regarding the law and the annual report required by the law is available at: www.health.state.ny.us/nysdoh/infection/ltc_act/index.htm. The site includes information about the transition of submitting the annual report by mail to submitting the annual report electronically via the NYSDOH Health Provider Network (HPN).

10. Implementation of New York State Public Health Law (PHL) §2112

Effective July 1, 2008, New York State Public Health Law (PHL) §2112 prohibits the administration of vaccines containing more than trace amounts of thimerosal, a mercury-containing preservative, to children less than 3 years of age and women who know they are pregnant, with certain exceptions. The definition of the term "trace" as referred to in this health advisory depends on the type of vaccine.

- For all vaccines except influenza vaccine the term "trace" means no more than 0.5 micrograms of mercury per 0.5 milliliter dose.
- For children under 3 years of age, an influenza vaccine may contain no more than 0.625 micrograms of mercury per 0.25 milliliter dose.
- For pregnant women, an influenza vaccine may contain no more than 1.25 micrograms of mercury per 0.50 milliliter dose.

The restriction on the administration of influenza vaccine containing no more than 1.25 micrograms of mercury per 0.5 milliliter dose will not apply to pregnant women unless the Commissioner of Health makes a yearly determination that there is an adequate supply of

influenza vaccine that has no more than this amount. For the 2008-09 influenza season the Commissioner of Health has determined that there appears to be an adequate supply of such influenza vaccine for vaccination of pregnant women.

In addition, there also appears to be an adequate supply of influenza vaccine that contains not more than 0.625 micrograms of mercury per 0.25 milliliter dose for vaccination of children less than 3 years of age. Providers who plan to provide influenza vaccine to children less than 3 years of age are also required to use influenza vaccine that complies with PHL §2112.

Providers are expected to seek out vaccine that complies with PHL §2112. However, in those instances when providers have in good faith sought out influenza vaccine that complies with PHL §2112 but such vaccine cannot be obtained, vaccination of children under 3 years old and pregnant women is still recommended (with informed consent) because the substantial risk of complications or death from influenza disease in these groups outweighs the unproven risk of vaccination with thimerosal-containing vaccine.

Thimerosal is an organic compound containing approximately 49% ethyl mercury and has been used safely as a preservative in certain vaccines since the 1930s. Since 2001, with the exception of certain influenza vaccines, thimerosal has not been used as a preservative in routinely recommended childhood vaccines. In addition, there are thimerosal-free preparations for most vaccines recommended for adults. Multiple scientific studies and an extensive review by the Institutes of Medicine have shown no evidence of adverse health effects due to thimerosal.

Additional information and recommendations regarding PHL §2112 are available at: https://commerce.health.state.ny.us/hpn/ctrldocs/alrtview/postings/doc080423_0.pdf.

Questions regarding influenza vaccine or immunization should be directed to your local health department (LHD), the NYSDOH Immunization Program (see contact list on page 14), or the NYCDOHMH Immunization Program.

11. Influenza Reporting Requirements

From the first week in October 2008 through the third week in May 2009, the NYSDOH will report the statewide weekly influenza activity to the CDC. In 2004, laboratory-confirmed influenza was added to the reportable disease list in New York State (Section 2.1 of the New York State Sanitary Code). The New York State reporting requirements for influenza are outlined below.

Positive influenza test results:

- As of July 18, 2008, per Public Health Law section 576-c, all laboratories are required to report electronically via the Electronic Clinical Laboratory Reporting System (ECLRS).
- Laboratories that report to ECLRS via ASCII or HL7 format and that use LOINC coding must report positive influenza test results.
- Also, laboratories entering data directly into the ECLRS web page are required to report influenza positive test results using the drop-down menu for reportable conditions.

- Laboratories that do not report to ECLRS via ASCII or HL7 format and use LOINC coding, and laboratories not entering data directly into the ECLRS web page may also report positive influenza test results, but are not required to at this time.
- The ECLRS Help Desk (866-325-7743) is available to answer questions and assist laboratories.
- At this time, medical providers do not need to report individual cases of influenza or submit a confidential case report (DOH-389) to the LHD except for fatal pediatric influenza illness (see below). Individual cases of nosocomial influenza also are reportable according to the nosocomial reporting method described on page 11.

Pediatric influenza-associated deaths:

- Medical providers, medical examiners, and infection control coordinators should report to the LHD:
 - Cases of fatal influenza illness in pediatric patients less than 18 years of age, and
 - Any pediatric death resulting from a clinically compatible illness.
- The LHD, upon learning of a suspect pediatric influenza-associated death:
 - Will assist in arranging for confirmatory influenza testing at the NYSDOH Wadsworth Center Laboratory. Such testing may be performed on pre- or post-mortem clinical specimens.
 - May request additional specimens, including pre- or post-mortem specimens, for testing at the NYSDOH Wadsworth Center and the CDC Infectious Disease Pathology Branch.
- The NYSDOH Regional Epidemiologist will assist the LHD in reporting a confirmed pediatric influenza-associated death on the Communicable Disease Electronic Surveillance System (CDESS).

Weekly reporting of the number of patients hospitalized with laboratory-confirmed influenza:

- Hospitals are required to report each Wednesday on the Healthcare Emergency Response Data System (HERDS) for the previous week ending Saturday midnight the number of newly identified hospitalized laboratory-confirmed influenza cases by age group.
 - Cases are to be aggregated into the following age groups:
 - 0-23 months
 - 2 to 18 years
 - 19 to 64 years
 - >64 years
 - Patients should be reported only once, when first diagnosed.
 - Include both community-acquired and nosocomial cases of influenza.
 - For nosocomial acquisition of influenza, hospitals must report to their LHD as well as to the NYSDOH. Please see the next section for details regarding the reporting of nosocomial influenza.
 - Reporting will be initiated Wednesday, October 8, 2008, for the week starting Sunday, September 28 and ending Saturday midnight, October 4, 2008.
 - Weekly reporting for the 2008-09 influenza season will continue through the week ending May 23, 2009.

- If you have any technical difficulties with accessing or using HERDS, please call the Commerce Trainers line at (518) 473-1809 or the Health Systems Emergency Preparedness Program at (518) 408-5163.

Reporting of nosocomial influenza by hospitals and nursing homes:

Hospitals and nursing homes are required to report nosocomial influenza to their LHD, by telephone, and to the NYSDOH, as described below.

- Nosocomial influenza is defined as one or more laboratory-confirmed nosocomial cases of influenza or an increased incidence of nosocomial febrile respiratory illness.
- An increased incidence includes:
 - An increase over the baseline level of febrile respiratory illness, or
 - A cluster of two or more patients or residents on one unit with febrile respiratory illness.
- Additionally, certain scenarios should be discussed with the NYSDOH Regional Epidemiology Program (see contact list on page 15), including:
 - A case that was not acquired at your facility but is in a sensitive setting in your facility, such as an organ or hematopoietic stem cell transplant (HSCT) unit.
 - A case of healthcare-associated influenza that may have been acquired at another facility (may indicate a risk of transmission at another facility).

The hospital or nursing home must report to the NYSDOH Regional Epidemiology Program via the Nosocomial Outbreak Reporting Application (NORA) system located on the Health Provider Network (HPN) at <https://commerce.health.state.ny.us/hpn/infecontrol/forms.html>. A tutorial for using NORA is located on the HPN at <https://commerce.health.state.ny.us/hpn/direct/training/nosocoicp.pdf> (page 22 of the tutorial provides an overview of nosocomial reporting). If you do not have access to the HPN or to the NORA system on the HPN, please contact your facility's HPN Coordinator so he or she may arrange access for you.

The Regional Epidemiology Program will follow up with the facility making the report. The Influenza Surveillance Coordinator in the Communicable Disease Bureau at the NYCDOHMH will follow up with nursing homes located in New York City. For questions regarding nosocomial reporting, please contact the Regional Epidemiology Program.

Reporting of outbreaks of influenza by facilities and institutions other than hospitals and nursing homes:

Facilities and institutions, including elementary and secondary schools, colleges, adult care facilities, correctional facilities, psychiatric facilities, and Office of Mental Retardation and Developmental Disabilities (OMRDD) facilities, should report by telephone any outbreaks of influenza-like illness to their LHD. The LHD in turn is required to notify the NYSDOH (Regional Epidemiology Program) by telephone. State-operated facilities and institutions are required to report, by telephone, to both their LHD and to the NYSDOH (Regional Epidemiology Program).

12. Influenza Outbreak Control in Health Care Facilities

When an increased incidence of febrile respiratory illness is identified, an attempt should be made to identify the specific viral agent as soon as possible in order to provide diagnostic information, guide control measures, and determine if antiviral use is indicated. Several other respiratory viruses, including respiratory syncytial virus, adenovirus, parainfluenza virus, and rhinovirus frequently co-circulate with influenza viruses during the influenza season, and testing is required to determine which of these agents may be causing the outbreak.

- Respiratory specimens should be obtained from six to 12 patients or residents who are ill with respiratory symptoms.
- Nasal aspirates or nasopharyngeal swabs are the specimens of choice due to their greater likelihood of capturing influenza viruses in the upper respiratory tract.
- Specimens should be submitted to a private or commercial laboratory capable of performing rapid antigen testing **as well as** viral culture for various viral agents, including those agents listed above.
 - Culture is recommended simultaneously due to the relative insensitivity of some rapid tests in detecting influenza.
 - Requests for follow-up culture on negative rapid antigen testing may have to be made in writing for some laboratories.
- Facilities are encouraged to identify private or commercial laboratories capable of performing rapid antigen testing and viral culture prior to the onset of influenza season.
- Testing of specimens at the NYSDOH's Wadsworth Center virology laboratory is available on a limited basis and must be arranged through the Regional Epidemiology Program (see contact list on page 15).

A checklist of suggested procedures for follow-up of an increased incidence or outbreak of respiratory illness is available at:

http://www.health.state.ny.us/diseases/communicable/control/respiratory_disease_checklist.htm

A respiratory illness line list form for recording information about cases is available at:

http://www.health.state.ny.us/professionals/diseases/reporting/communicable/infection/docs/respiratory_illness_line_list_form.pdf.

If facilities wish to consult with an epidemiologist prior to submitting their nosocomial report to the NYSDOH, they are encouraged to call the Regional Epidemiology Program in their area. Nursing homes in New York City are encouraged to call the Influenza Surveillance Coordinator in the Communicable Disease Bureau at the NYCDOHMH at (212) 442-9050 or (212) 788-4150.

Influenza antiviral treatment and chemoprophylaxis:

The CDC and NYSDOH recommend the use of influenza antiviral treatment and chemoprophylaxis when influenza occurs in a long-term care facility. Use of antiviral treatment and chemoprophylaxis has likely decreased the severity of influenza outbreaks in many long-term care facilities in New York State during previous influenza seasons. As in previous seasons, CDC and ACIP recommend that neither amantadine nor rimantadine be used for the treatment or chemoprophylaxis of influenza A in the United States until susceptibility to these antiviral medications has been re-established among circulating influenza A viruses. Thus, neither agent should be used for treatment or prophylaxis during the 2008-09 season.

Oseltamivir or zanamivir can be prescribed if antiviral treatment or prophylaxis of influenza is indicated. Oseltamivir is approved for treatment of persons aged ≥ 1 year, and zanamivir is approved for treatment of persons aged ≥ 7 years. For chemoprophylaxis, oseltamivir is licensed for use in persons aged ≥ 1 year, and zanamivir is licensed for use in persons aged ≥ 5 years. Although oseltamivir-resistant influenza A(H1N1) strains have been identified in the United States and some other countries, CDC continues to recommend oseltamivir for influenza treatment and prophylaxis because other influenza virus strains remain sensitive to oseltamivir, and resistance levels to amantadine and rimantadine remain high. Detailed recommendations can be found in the 2008 ACIP Recommendations (<http://www.cdc.gov/mmwr/PDF/rr/rr5707.pdf>) and at the following CDC web site: <http://www.cdc.gov/flu/professionals/treatment/>. As always, package inserts for the medications should be consulted and each individual patient's medical condition should be considered prior to prescribing any antiviral agent.

To bring nosocomial influenza under control quickly, antiviral treatment and prophylaxis should be started without delay. Before influenza season starts, nursing homes should investigate whether their residents' third party prescription insurance plans, including Medicaid and Medicare Part D Prescription Drug Program plans, will cover residents' prescriptions for oseltamivir or zanamivir. This will help identify issues with non-coverage, need for prior authorization or co-payment, and should help avoid delay in obtaining antiviral medications promptly if an influenza outbreak occurs in the facility.

CDC has published extensive guidance documents, which the NYSDOH endorses, regarding control of nosocomial influenza in acute and long-term care settings. CDC's guidance document, *Infection Control Guidance for the Prevention and Control of Influenza in Acute-Care Facilities* is available at:

<http://www.cdc.gov/flu/professionals/infectioncontrol/healthcarefacilities.htm>.

CDC's guidance document, *Infection Control Measures for Preventing and Controlling Influenza Transmission in Long-Term Care Facilities* is available at:

<http://www.cdc.gov/flu/professionals/infectioncontrol/longtermcare.htm>.

13. Influenza Surveillance Summary Reports

In addition to the ECLRS reporting of positive influenza laboratory tests by laboratories and the HERDS reporting of hospital admissions due to laboratory-confirmed influenza, local and state health department personnel conduct surveillance during the influenza season using several other surveillance systems. These systems include monitoring:

- Reports from New York State laboratories that are World Health Organization (WHO) collaborating laboratories for influenza virus surveillance or are participants in CDC's National Respiratory and Enteric Virus Surveillance System (NREVSS);
- Reports of influenza-like illness by members of the New York State Influenza Sentinel Provider Surveillance Network;
- Reports of nosocomial influenza from hospitals and nursing homes;
- Reports of community or institutional influenza outbreaks from LHDs; and
- Reports of influenza-associated pediatric deaths.

Using these various sources, the NYSDOH provides a statewide influenza surveillance map and other influenza-related information on its public web site:

<http://www.health.state.ny.us/diseases/communicable/influenza/surveillance.htm>.

CDC provides nationwide influenza surveillance information on its public website:

<http://www.cdc.gov/flu/weekly/fluactivity.htm>.

Questions regarding the reporting of influenza, influenza outbreak control recommendations, or influenza surveillance should be directed to your LHD, the NYSDOH Regional Epidemiology Program (see contact list on page 15), or the NYCDOHMH Influenza Surveillance Coordinator.

14. NYSDOH and NYCDOHMH Contact Information

NYSDOH Immunization Program:

- Western Regional Office
 - Buffalo (716) 847-4385
 - Rochester (585) 423-8014
- Central New York Regional Office
 - Syracuse (315) 477-8164
- Capital District Regional Office
 - Troy (518) 408-5278
- Metropolitan Area Regional Office
 - New Rochelle (914) 654-7005
 - Monticello (845) 794-5924
 - New York City (631) 851-3096
 - Central Islip (631) 851-3096
- Central Office
 - Albany (518) 473-4437
- After hours
 - NYSDOH Duty Officer 1-866-881-2809

