

INFLUENZA INFORMATION

2007-2008 SEASON

Summary of the 2006-2007 Season

During the 2006-2007 season, 187 (40%) of 464 specimens submitted to the Oregon State Public Health Laboratory (OSPHL) to *rule out influenza* contained influenza viruses (173 type A and 14 type B) and of the 546 of such specimens submitted to Providence Portland Medical Center Infectious Disease Laboratory, 176 (32%) were positive (168 A and 8 B). Additional reports from these laboratories and those of Kaiser Permanente NW, Legacy Health System, and OHSU brought totals to 426 type A and 25 type B as compared with 503 type A and 91 type B of the 2005-2006 season.

Vaccine Composition for 2007-2008

Vaccines for the 2007-2008 season will include A/Solomon Islands/3/2006 (H1N1)-like, A/Wisconsin/67/2005 (H3N2)-like and B/Malaysia/2506/2004-like infectious virions (FluMist™) or noninfectious virion components.

Vaccine Dosage By Age Group

1. Noninfectious Vaccine (TIV)

<u>Age Group</u>	<u>Product</u>	<u>Dosage</u>	<u>Doses</u>	<u>Route</u>
6-35 mos.	Split-virus	0.25 ml	1 or 2	IM
3-8 yrs.	Split-virus	0.50 ml	1 or 2	IM
9-12 yrs.	Split-virus	0.50 ml	1	IM
>12 yrs.	Split-virus	0.50 ml	1	IM

2. Infectious Vaccine (FluMist™)

<u>Age Group</u>	<u>Product</u>	<u>Dosage</u>	<u>Doses</u>	<u>Route</u>
5-8 yrs.	Whole	0.50 ml	1 or 2	IN
9-49 yrs.	Whole	0.50 ml	1	IN

Target Groups for Influenza Vaccination

To maximize protection of persons at high risk of severe illness and death following influenza, they *and their close contacts*, including healthcare workers, should be vaccinated.

1 Persons at Increased Risk for Influenza-Related Complications:

persons 50 years of age or older, regardless of health status;
residents of nursing homes and other chronic-care facilities of any age;
adults and children with chronic disorders of the pulmonary or cardiovascular systems, including asthma, cystic fibrosis, emphysema, and those at risk of aspiration of nasopharyngeal secretions;
adults and children who have required regular medical follow-up or hospitalization during the preceding year because of chronic metabolic disease (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression (due either to medications or infections such as HIV);
children and adolescents (6 months-18 years of age) who are receiving long-term aspirin therapy and therefore may be at risk of developing Reye syndrome after influenza;
women who are or will become pregnant during the influenza season; and
children 6 to 59 months of age.

2. Persons Who Can Readily Transmit Influenza to Those at Elevated Risk of Influenza:

physicians, nurses and other personnel in both hospital and outpatient-care settings, including EMTs; employees of retirement centers, assisted-living residences, nursing homes, and chronic-care facilities who have contact with patients or residents; providers of home care to persons at high risk (e.g., visiting nurses, volunteer workers); and all household members 6 months of age and older residing with persons in high-risk groups listed above as well as those residing with infants under 6 months of age.

Vaccine Efficacy:

When the vaccine is well matched to circulating viruses, it has been shown to prevent illness in approximately 70%-90% of healthy persons less than 65 years of age. Among elderly persons living in the community, its effectiveness in preventing hospitalization for pneumonia and influenza ranges from 30%-70%. Its effectiveness among elderly persons residing in nursing homes in preventing hospitalization and pneumonia is 50%-60% and 80% in preventing death. Effectiveness in preventing influenza illness in the frail elderly may be as low as 30%-40%.

Timing of Vaccination and Duration of Protection

Vaccine is usually available in September and may be administered at any time to confer protection against influenza. The duration of maximal protection is temporary lasting approximately 6 months. Given recent patterns of influenza activity in Oregon, the best time to vaccinate for optimum protection is from October through mid-November. Earlier vaccinations may be indicated if surveillance indicates influenza activity before December. Vaccine may be administered at any time during the period of seasonal transmission to prevent infection. Neuraminidase inhibitors may be utilized in the interval prior to acquisition of protective titers following immunization with noninfectious vaccine. They are not to be used for this purpose with infectious vaccine.

Side Effects and Adverse Reactions

Noninfectious vaccine

Soreness at the site of intramuscular injection occurs in 10%-64% of vaccinees and may last for 48 hours. Fever, malaise, myalgia, and other systemic symptoms occur infrequently and usually begin 6-12 hours after vaccination and may last for 1-2 days. Immediate, presumably allergic, reactions (e.g., hives, angioedema, allergic asthma, and systemic anaphylaxis) occur rarely and are believed to be most likely related to hypersensitivity to egg proteins.

Infectious vaccine (FluMist)

- Signs and symptoms commonly reported following intranasal administration included runny nose or nasal congestion, sore throat, cough, and myasthenia. Lesser symptoms experienced included fever, chills, headache, vomiting, abdominal pain, and myalgias.
- Other adverse events reported among adults included rhinitis and sinusitis.

Persons Who Should Not Be Vaccinated

Noninfectious vaccine

Those known to have anaphylactic hypersensitivity to eggs or other components of this vaccine. Antiviral drugs may be employed to prevent infection in such individuals. Adults or children with *other than minor febrile or nonfebrile illnesses*. Influenza vaccine should be administered following resolution of symptoms.

Infectious vaccine (FluMist™)

- Persons under 5 or over 49 years of age;
- Any 5 to 49 year old who is at elevated risk of influenza complications (see listing above);
- Persons with a history of GBS;
- Close contacts, including household and healthcare, of persons requiring care in a protective environment*;
- Anyone known to have anaphylactic hypersensitivity to eggs or other components of this vaccine; and
- Adults or children with *other than minor febrile or nonfebrile illnesses*. Influenza vaccine should be administered following resolution of symptoms.

Additional Precautions Regarding Use of Infectious Vaccine (FluMist™)

- Severely immunosuppressed persons* should not administer this vaccine due to the risk of environmental contamination and subsequent infection.
- Other infectious and noninfectious vaccines may be administered concurrently at different anatomic sites. For administration of other vaccines before or after intranasal instillation of FluMist™, please refer to the package insert.

Influenza Surveillance in Oregon

Throat washings or nasopharyngeal swabs are accepted by the OSPHL to *rule out influenza* in persons with influenza-like illness. This service is provided without charge to assess the beginning of community transmission, the prevalent influenza virus types and strains and the cessation of community transmission. **If not accepted year round, the specific dates during which this service will be offered will be given in the CD Summary and/or posted on the web. (<http://www.oregon.gov/DHS/ph/acd/flu/influenza.shtml>)**

- * This includes all those severely immunosuppressed such as patients with hematopoietic stem cell transplants. If contacts do receive the vaccine, they should avoid close contact with such immunosuppressed persons for 7 days after vaccine receipt.

Sources of Information

Centers for Disease Control and Epidemiology (CDC)

Voice Information System (vaccine info): **(800) 232-4636**

Website: **<http://www.cdc.gov/flu>**

Office of Disease Prevention and Epidemiology (PHD): (971) 673-1111

Oregon influenza virus isolates by type, subtype, and location

Website: **<http://www.oregon.gov/DHS/ph/acd/flu/influenza.shtml>**

Office of Family Health (OHS): (971) 673-0300

Informational materials for healthcare professionals and patients

Website: **<http://www.oregon.gov/DHS/ph/imm/flupage06.shtml>**

Oregon State Public Health Laboratory (OHS): (503) 229-5504

Specimen collection and transport kits

Website: **<http://www.oregon.gov/DHS/ph/vi/index.shtml>**

Local Health Departments

Clinic services, sites and hours

Directories: **<http://www.oregon.gov/DHS/ph/lhd/lhd.shtml>**

Websites: **<http://www.oregon.gov/DHS/ph/acd/reporting/counties.shtml>**

Call 1-800-Safenet for clinic information in Oregon.