

Influenza Facts

Oregon

A. Historical

1. Influenza is the only disease that recurs each year affecting a minimum of 15%-25% of the population and causes thousands of excess deaths in the U.S., and millions worldwide. On average, approximately 36,000 U.S. residents die each year of pneumonia and influenza (P&I).
2. Three major epidemics occurred this past century in the U.S. in 1918 ("Spanish flu"), 1957 ("Asian flu") and 1968 ("Hong Kong flu") resulting in 500,000, 70,000 and 34,000 deaths, respectively. In Oregon, 3,688 deaths due to influenza occurred during the three years from 1918-1920.
3. P&I ranked as the eighth leading cause of death in Oregon in 2004. Among persons 65 years of age and older, such deaths ranked as the seventh leading cause of death. In 2005, 608 Oregonians died of causes directly related to P&I. Of these, 86% were 65 or older. Among deaths attributed to infection, P&I ranks #1.
4. Influenza was a reportable disease in Oregon from 1918-1981. During this span of 64 years, physicians reported as few as 33 cases in 1921 and as many as 73,947 cases in 1966, for an average of 15,589 cases each year.
5. Costs from lost days of work, physician visits, hospitalizations and deaths due to influenza are enormous. The estimated cost of the 1968 U.S. epidemic was 3.9 billion dollars.

B. Influenza

1. There are three types of influenza viruses: A, B and C. Of these, types A and B cause epidemics, while type A is more severe in terms of illness and associated deaths. The 1918 pandemic was caused by a type A influenza virus, an H1N1 subtype. H2N2 viruses were prevalent in 1957 and H3N2 in 1968. Type B viruses have not been associated with pandemics.
2. Illness occurs from 24 to 72 hours following exposure to the virus with abrupt onset of fever, chills, headache, muscle aches and pains, dry cough, sore throat and overwhelming weakness. Return to full health may follow after three to five days of illness but it is usually drawn out and may take a week or more.
3. Virus is shed in droplets produced by sneezing, coughing and ordinary conversation and may be present in respiratory secretions up to 24 hours or more before onset of illness. Persons may be infectious to others up to 5 days or more following onset of illness, although virus shedding usually decreases to low levels after three days. Virus shedding may extend to 6 or more days before and 10 days or longer after onset in children and over months in persons with immune deficiencies. Hands often serve as a means of viral exchange.
4. Influenza virus may invade pulmonary tissues and cause pneumonia or so weaken a person that other viruses or bacteria may cause pneumonia or other complications. Deaths are usually due to respiratory and/or heart failure. In older individuals, the usual signs and symptoms of influenza may be absent or so mild as not to be recognized as influenza, until respiratory and/or heart failure suddenly appears.
5. Amantadine or rimantadine are not currently recommended for prophylaxis due to the high level of resistance found among type A influenza viruses in the U.S. Zanamivir (Relenza) and oseltamivir (Tamiflu) may be prescribed within 48 hours of illness onset to lessen the intensity and duration of illness due to either type A or B viruses. Both may also be used as a preventative for both A and B viruses. As a preventative they should be taken throughout the

period of viral transmission. They are not recommended for prophylaxis in the week or so following administration of FluMist vaccine as they may compromise the immune response.

C. Priority Groups for Immunization

- Persons 50 years of age and older are at increased risk of severe illness and complications and account for more than 90% of deaths due to P&I. Death rates may be 34 to more than 100 times higher than persons under 50. In 2004, the respective rates/100,000 in Oregon were 52.5 and 0.7.
- Individuals with chronic respiratory, heart or kidney diseases also are at elevated risk, regardless of age. This includes medical conditions such as asthma, emphysema, bronchitis, cystic fibrosis, and other forms of respiratory disease, including those with a risk of aspiration of secretions.
- Persons of any age with diabetes, severe anemia, or impaired immune function due to cancer, HIV infections or medical treatment also are at elevated risk of severe illness and death.
- Persons of any age residing in nursing homes or other chronic care facilities.
- Children and adolescents (6 months - 18 years) on long-term aspirin therapy.
- Women who are or will become pregnant at any time during the influenza season.
- Children 6 through 59 months of age.

D. Prevention

1. This year both infectious (FluMist) and noninfectious vaccines will again be prepared containing two type A and one type B component. They are matched as closely as possible to the types of viruses most likely to be transmitted during the coming influenza season. The vaccines will contain A/Solomon Islands/3/2006 (H1N1)-like, A/Wisconsin/67/2005 (H3N2)-like and B/Malaysia/2506/2004-like cold-adapted viruses or virion antigenic components.
2. Well-matched vaccines are 70-90% effective in preventing illness. In elderly persons, vaccination produces a 50%-60% reduction in hospitalization and an 80% reduction in deaths due to P&I.
3. Vaccinations should be obtained each year due to changes made in the vaccine components and the limited duration of protection. The best time to receive vaccine is from October to mid-November as Oregon influenza activity may begin any time from late October to early January, and reach a peak in January, February or March. Following vaccination, a minimum period of two weeks is usually needed to develop full protection against infection. Maximum protection from infection generally lasts up to six months so take care not to be vaccinated too far ahead of the season and to ensure protection with annual vaccinations.
4. Vaccination is the only universal cost-effective method of preventing infection from cocirculating type A and B strains, and should be obtained by all persons at elevated risk of influenza and its complications and by all those who might transmit influenza to at-risk individuals (including infants under 6 months of age), including household members, healthcare workers and any others who provide assistance, socialize or work with them.