

4.3.2 Influenza

Epidemiology of disease and impact of vaccination

Influenza is a highly infectious viral illness of the respiratory tract that can be life threatening in the elderly and in those with chronic medical conditions. There are three types of influenza virus, A, B and C. Influenza A and influenza B cause the majority of human infections.

The viruses undergo minor changes in their viral coating thus necessitating the need for annual vaccination. The World Health Organisation recommends the appropriate composition of vaccines depending on circulating strains. When the vaccine closely matches circulating strains it provides 70-80% immunity in healthy adults. The vaccine is less effective in the elderly.

Occasionally new influenza viruses can emerge. This is of major importance, as the general population will not have any protection against new virus. The new subtype can cause a pandemic if it has the ability to spread rapidly from person to person and if it is virulent. As a result large numbers of people all over the world may be affected over a relatively short space of time with high rates of infection, morbidity, hospitalisation and mortality.

In Ireland influenza surveillance is conducted in collaboration with the Health Protection Surveillance Centre, the Irish College of General Practitioners, the National Virus Reference Laboratory and the Departments of Public Health. An influenza weekly surveillance report is posted on the Health Protection Surveillance Centre website <http://www.ndsc.ie/hpsc/A-Z/Respiratory/Influenza/Publications/> (Figure 4.14).

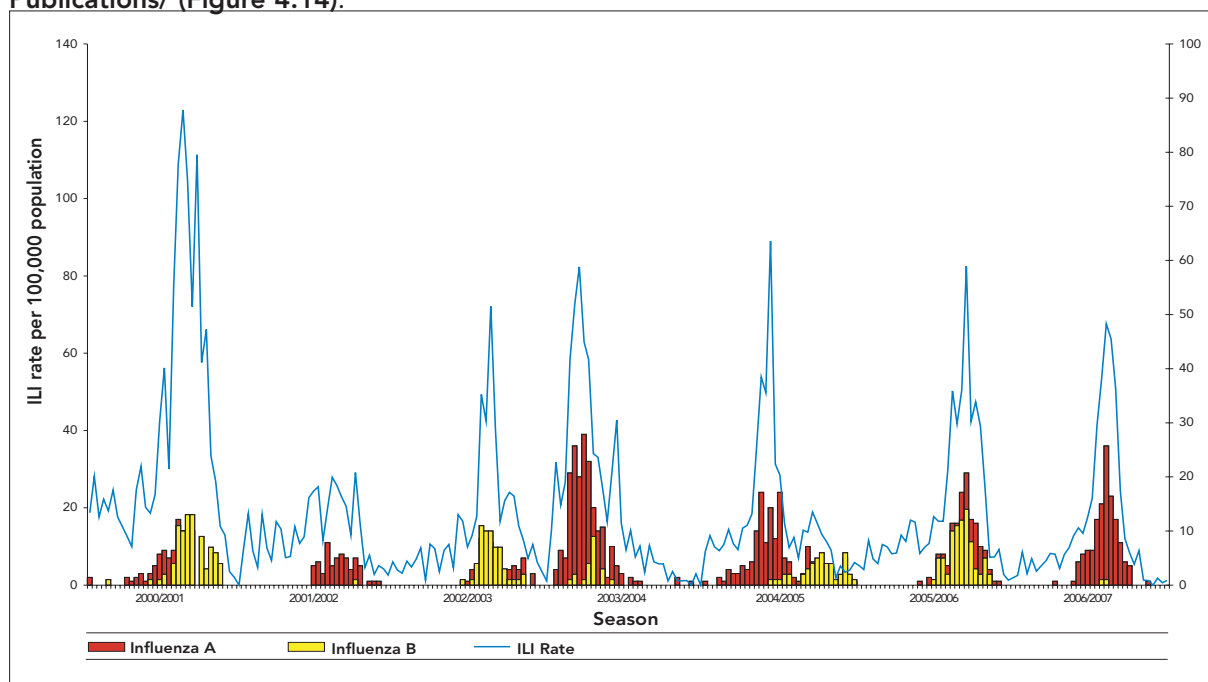


Figure 4.14: Number of positive influenza specimens and rate of influenza like illness in Ireland 2000-2006.

Source: Health Protection Surveillance Centre

Transmission

Transmission is by airborne droplet spread through coughing and sneezing.

Incubation period

The incubation period is short generally ranging from 1-3 days.

Period of infectivity

The patient is infectious from one day before to 3-5 days after onset of symptoms.

Clinical features

Influenza is characterised by sudden onset of symptoms with fever, headache, muscle weakness, sore throat and dry cough and lasts 2-7 days. The most frequent complication of influenza infection is pneumonia, most commonly secondary bacterial pneumonia. Primary influenza viral pneumonia is associated with a high death rate. Other complications include worsening of pre-existing chronic medical conditions such as chronic bronchitis or chronic heart failure. Death is reported in 0.5 - 1 per 1,000 cases of influenza. The majority of deaths occur in those over 65 years of age.

Vaccine schedule in Ireland

In Ireland vaccination is recommended for all patients over 65, healthcare workers with direct patient contact and high-risk groups as laid out in the national immunisation guidelines. In 2006, NIAC recommended reducing the age group to all those over 50 years and this will be implemented on a phased basis.

4.3.3 Varicella

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Varicella (Chickenpox) is a highly infectious viral illness caused by the Varicella virus and characterised by a vesicular rash.

Transmission

Transmission is through direct or droplet contact with nasopharyngeal secretions of an infected person.

Incubation period

The incubation period ranges between 14 and 21 days.

Period of infectivity

A person can be infectious from 5 days before onset of rash until the vesicles are crusted (usually 5 days). The virus can lay dormant and reactivate in later life.

Herpes-Zoster (shingles) is caused by reactivation of the chickenpox virus. Virus from lesions can be transmitted to susceptible individuals to cause chickenpox but there is no evidence that herpes-zoster can be caused by another individual with chickenpox.

Vaccine recommendations in Ireland

The vaccine is recommended for at-risk groups including

- Healthcare workers without a definite history of chickenpox, or proof of immunity, particularly those working with haematology, oncology, obstetrical, general paediatric or neonatal patients
- Laboratory staff who may be exposed to varicella virus in the course of their work
- Healthy susceptible close household contacts of immunocompromised patients.

For further information consult with the National Immunisation Guidelines available at www.hpsc.ie