



# influenza in at-risk

## Vaccinating against influenza in at-risk groups

### Why is this important?

Influenza, commonly called 'the flu', is a highly contagious infection that is passed from person to person through sneezing and coughing. Influenza is a seasonal infection in non-tropical areas and is present between late autumn and early spring. Occasionally severe worldwide epidemics (pandemics) occur and are now known to originate from influenza viruses that occur in birds and animals. Influenza can cause illness for up to 10 days and is much more serious than the common cold. In adults, typical symptoms of the flu include fatigue, fever, chills, headache, loss of appetite and muscle aches. These may be accompanied by a cough and nasal discharge [1].

Most healthy adults will recover from influenza without any lasting problems. However, people aged 65 years and over, and those with conditions such as heart disease, lung disease and diabetes, often develop complications.

These complications can include worsening of the pre-existing conditions and the occurrence of pneumonia, and may sometimes be fatal [2].

Treatment of influenza is largely symptomatic (i.e. addressing effects, not the cause). In recent years a new class of specific anti-influenza drugs known as neuraminidase-inhibitors has become available. If taken within the first two days of illness, these drugs can reduce the severity and duration of illness and, in certain circumstances, may also be used to provide short-term protection against infection [3]. They do not replace vaccination as the primary approach to protection.

### Best available evidence

Annual influenza vaccination has been shown to reduce illness, hospitalisation and death [1, 4–6]. Its effectiveness depends mainly on the age and immunocompetence of the person receiving the vaccine, and how similar the vaccine's virus strains are to those circulating in the community [1]. Annual vaccination is necessary because influenza viruses change and vaccines are regularly updated to provide protection against the most recent influenza viruses. Also, immunity from vaccination declines over the course of a year.

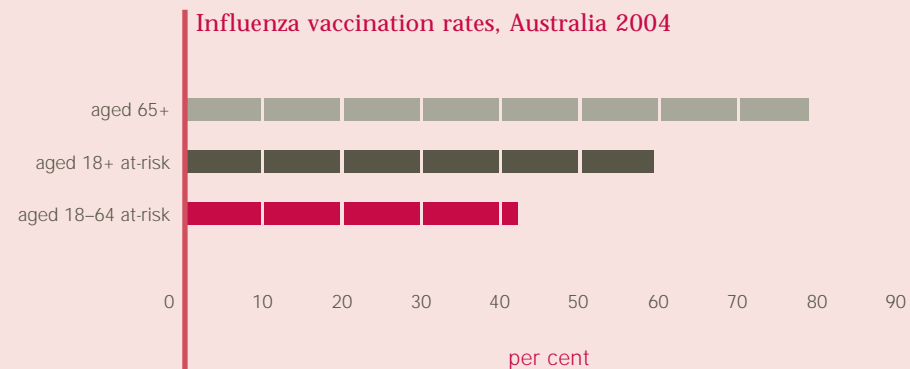
The National Health and Medical Research Council (NHMRC) recommends annual influenza vaccination for all Australians aged 65 years and over [1]. The vaccine is also recommended for other groups, including Aboriginal and Torres Strait Islander adults aged 50 years and older; children and adults with chronic conditions including diabetes, cancer, cardiovascular

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disease, kidney disease, immune deficiency disorders and respiratory illnesses such as bronchitis, emphysema and asthma (if hospitalised in the last year); hospital workers; residents of nursing homes and other long-term care facilities; and contacts of high-risk patients [1].

Except for people allergic to the vaccine components, such as egg material, the vaccine can generally be administered to anybody over the age of six months.

Among people aged 65 years and over, it has been estimated that the cost per year to prevent a case of influenza is \$598, to prevent a hospitalisation due to influenza is \$10,787 and to prevent a death from influenza is \$74,801 [7].



Source: Australian Institute of Health and Welfare (2005), Adult Vaccination Survey 2004

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### Current practice

The 2004 Influenza Vaccination Survey estimates that 79 per cent of Australians aged 65 years and over were vaccinated against influenza [8]. A national survey in 2000 reported an immunisation rate of 74 per cent among those aged 65 and over [9]. This compares favourably with vaccination coverage of the same age group in the United Kingdom (68 per cent) and the United States (63 per cent) [10, 11].

However, the over-65s are not the only group at risk of severe outcomes from infection. More than three-quarters of people hospitalised with influenza as a principal diagnosis are younger than 65 [12, 13], and a significant proportion of them would have conditions such as diabetes, heart disease or lung disease [14]. Despite this, only 42 per cent of Australian adults younger than 65 with high-risk conditions are being vaccinated against influenza [8].

### Implications

- Four out of five Australians aged 65 and over are being vaccinated against influenza, and coverage is increasing in this group. In this setting there is a consistency between government policy and guidelines for clinical practice.
- Three out of five Australian adults younger than 65 who are at risk due to chronic health conditions are not currently being vaccinated against influenza. If coverage in this group could be increased to a level comparable to the over-65 group, there would be a significant reduction in hospitalisations and deaths due to influenza infection and related complications. Cost is likely to be a barrier for those who have to pay for their vaccinations.
- There is a need for greater awareness among consumers and clinicians of the risks associated with influenza in at-risk groups.

- Despite influenza vaccination being safe, another barrier to its uptake is an incorrect perception that it is associated with significant side effects [15, 16].

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