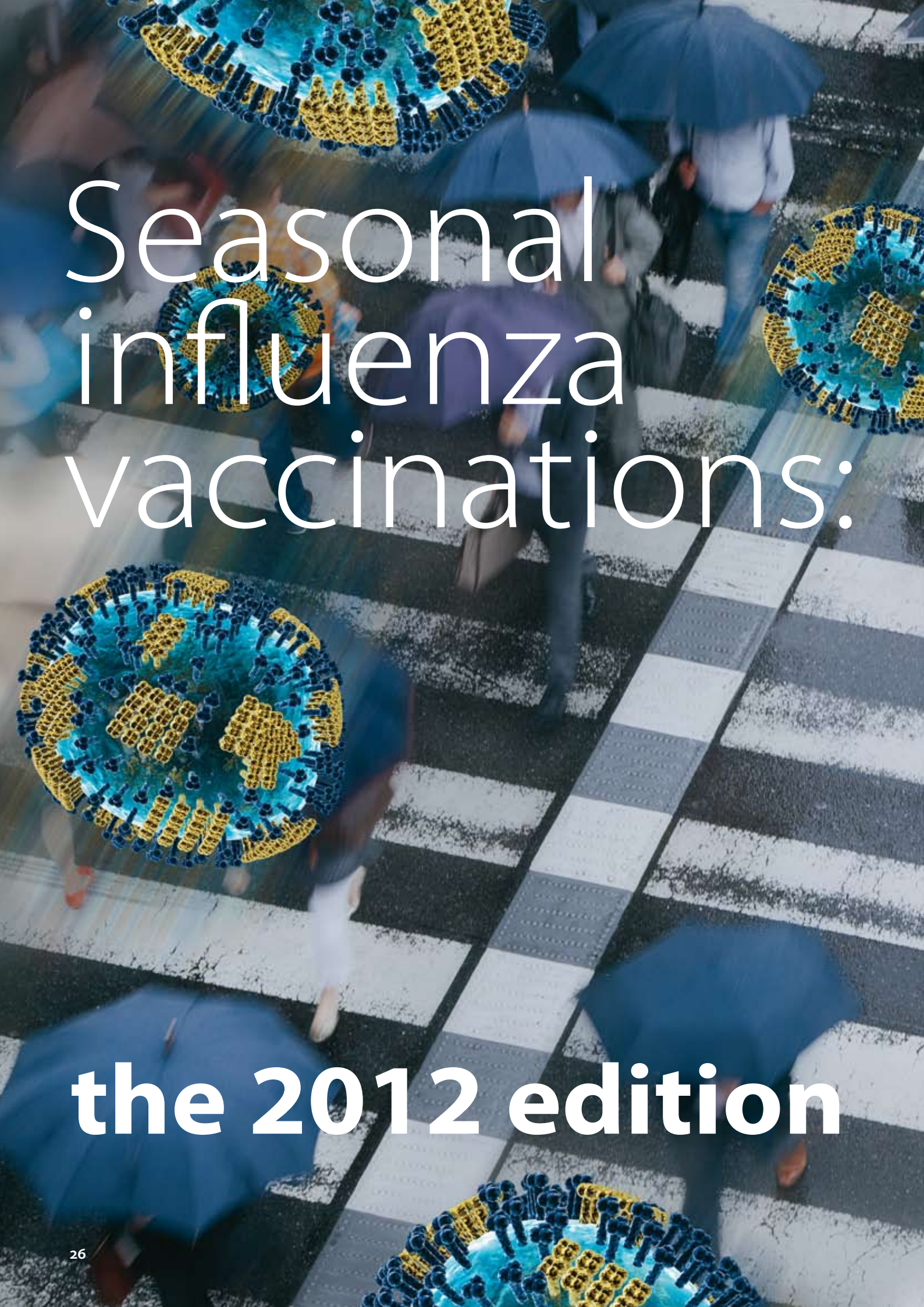


Seasonal influenza vaccinations:

the 2012 edition

The seasonal influenza vaccine for 2012 contains the same virus strains that have been included in the vaccines for the previous two years. PHO Performance Programme data has shown a small decline in uptake in 2011 amongst elderly people, possibly due to duplication of the influenza strains in the vaccine from 2010. It is important that uptake of regular annual influenza vaccination does not decline further this year, as annual vaccination is required even when the strains are repeated. Clinicians should be prepared to address patient concerns and ensure that people in high risk groups receive the vaccine in time for the "influenza season".

What's in the vaccine this year?

The 2012 seasonal influenza vaccine contains the following virus strains:

- A/California/7/2009(H1N1)pdm09-like strain ("Swine flu")
- A/Perth/16/2009 (H3N2)-like strain
- B/Brisbane/60/2008-like strain

The choice of these strains is based on the recommendation of the World Health Organisation which is endorsed by the Australian Influenza Vaccine Committee.[1] They are the influenza strains that are expected to circulate during the 2012 Southern Hemisphere influenza season. They are the same virus strains that were in the 2010 and 2011 vaccinations.

Two vaccines brands

There are two funded vaccine brands in 2012: Fluvax and Fluarix.

Fluarix is approved for children aged over six months and adults.

Fluvax is approved for children aged over nine years and adults, but should not be given to any child with a history of febrile convulsions.[2]

How many doses are needed this year?

Adults and children aged over nine years require only one dose of the vaccine.

Doses for children aged between six months and nine years vary depending on whether they have previously been vaccinated for influenza:

- Children who are receiving their first ever influenza vaccination should have two doses, at least four weeks apart. This is because they are likely to be immunologically naïve to influenza of any strain and require an initial priming dose.[2]
- Children who have received a dose at any stage in the past, need only a single dose

PHO Performance Programme – Influenza vaccination

Influenza vaccination in people aged 65 years and over is a PHO Performance Programme Indicator and accounts for 9% of the Performance funding; 3% for the total population and 6% for the high need population.[4] High need populations include Māori and Pacific Peoples and people living in lower socioeconomic areas (i.e. New Zealand deprivations deciles 9 and 10).

The programme goal for influenza vaccination is: *for at least 75% of the enrolled patient population aged 65 years or over to have received the influenza vaccine during the most recent influenza campaign.*

Performance is calculated by the number of people aged 65 years or over who have received their immunisation in the most recent campaign, divided by the total number of people aged 65 years or over enrolled at that practice.

The number of vaccine claims for this age group was 65% in 2011, down from 67% in 2010. While this decline is relatively small, it is important that this trend is reversed as the programme has not yet reached its goal.

Who is eligible for free influenza vaccinations this year?

Fluarix and Fluvax are subsidised for eligible people if administered prior to 31 July, 2012.

Eligible people include:

- All people aged 65 years and over
- Women who are pregnant
- People with the following medical conditions:
  - Cardiovascular disease, e.g. ischaemic, congestive, rheumatic or congenital heart disease – excluding hypertension or dyslipidaemia
  - Cerebrovascular disease, e.g. stroke
  - Chronic respiratory disease, e.g. asthma, COPD
  - Diabetes
  - Chronic kidney disease
  - Current cancer, excluding basal or squamous skin cancer if non-invasive
  - Immunocompromised people, including those with autoimmune disease, immune suppression, human immunodeficiency virus (HIV) and transplant recipients
  - Children on long-term aspirin treatment
  - Other – neuromuscular disease, central nervous system diseases and haemoglobinopathies

In addition, Canterbury District Health Board will fund influenza vaccination in 2012 for all people aged 6 – 18 years (due to earthquake-damaged housing).

A comprehensive list of eligible conditions can be found at: **www.influenza.org.nz.**

Who else should be encouraged to get vaccinated?

Although the vaccination will not be subsidised, consider encouraging parents to have children aged between six months and five years vaccinated. This is particularly important if any risk factors are present, which can increase the chance of exposure or complications from influenza. Risk factors for influenza complications include:

- Māori or Pacific ethnicity
- Living in a low socioeconomic area or a crowded household
- Being exposed to second-hand cigarette smoke
- Frequent illness

It should, however, be acknowledged that many of the people that are at an increased risk from influenza complications may also have some of the greatest barriers to vaccination, such as cost and access to community care.

Women who intend to become pregnant during the influenza season should be vaccinated.

People who are travelling to the Northern Hemisphere during its influenza season (approximately October to May) should also be encouraged to be vaccinated.

Healthcare providers should be vaccinated

Healthcare providers have one of the highest exposure rates for influenza in the community. Immunisation is the most effective way to minimise exposure to the influenza virus, including the risk of transmission to patients and their families.[3]

Who should not get the vaccine

People with an acute illness or fever over 38°C should delay having the vaccine until they are well.

People who have a confirmed anaphylactic reaction to egg protein should not be given the vaccine, unless the benefit of vaccination outweighs the risk.[2]

Concerns and common myths about influenza vaccination

Research shows that the strongest single factor influencing patient uptake of the influenza vaccine is a recommendation from a doctor or nurse.[5] Any consultation leading up to the influenza season presents an opportunity to discuss the vaccine, address any concerns and provide unbiased, evidence-based information about immunisation. In a recent study of vaccine uptake, the two most common reasons patients cited for not getting vaccinated were fear that the vaccine is not safe and the belief that they were not at risk from influenza.[6]

The following evidence may be helpful in addressing specific patient concerns.

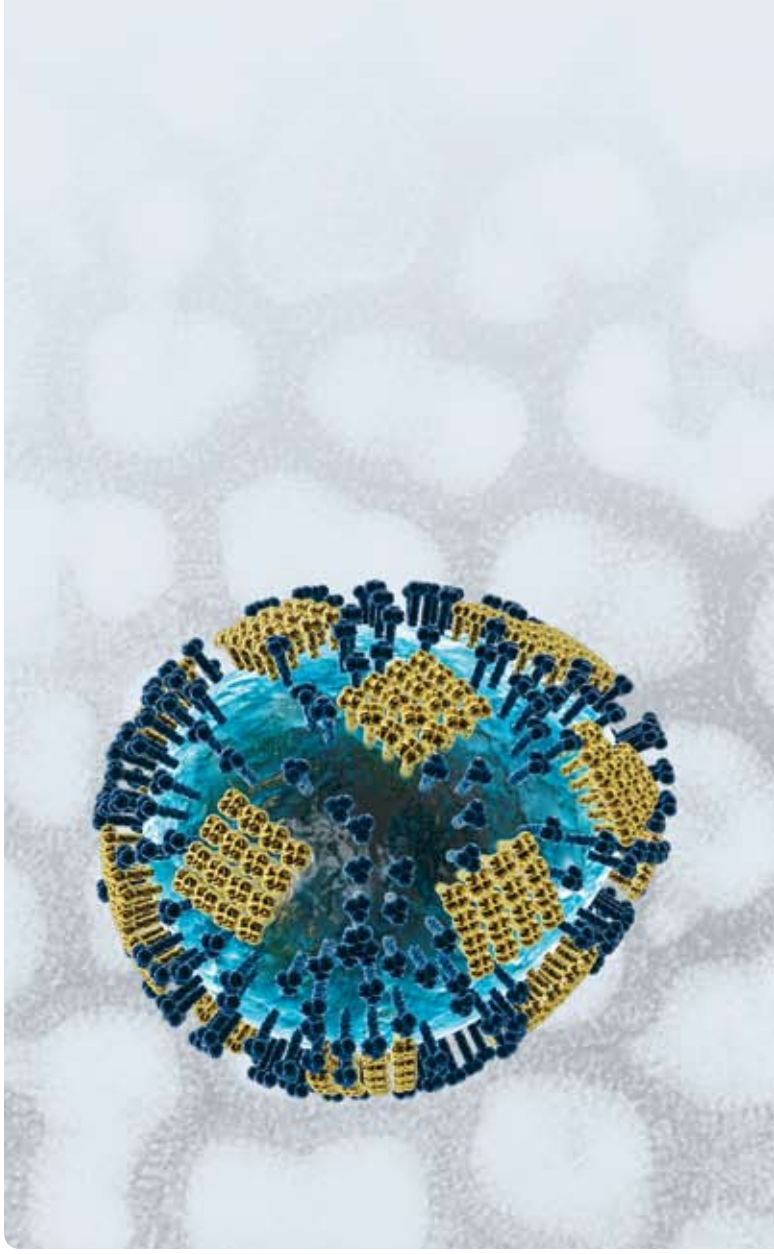
Common concerns about influenza vaccination during pregnancy

Women who are pregnant and newborn infants have an increased risk of contracting influenza and of influenza complications.[7, 8] During the 2009/2010 influenza season, pregnant women were four times as likely to be hospitalised,

Pharmacists can now administer the influenza vaccination

As of August 2011, the Ministry of Health has allowed pharmacies in New Zealand to apply for permission to administer influenza vaccinations to adults aged 18 – 59 years who are not eligible for funding. Pharmacists must undergo vaccination training and can administer the unfunded vaccine, Intanza®.

People eligible for fully funded vaccines and all people aged under 18 or over 59 years who wish to be vaccinated, should be referred to their general practice.



seven times as likely to be admitted to intensive care and had a higher mortality rate from influenza than the rest of the population.[7,9]

Timing of the vaccination – Influenza vaccination is recommended for women who are pregnant or who are planning a pregnancy. The vaccine is safe to administer during all stages of pregnancy.

Safety of vaccination for the foetus – The influenza vaccine does not increase the likelihood of miscarriage or birth defects (but influenza may do).[8] Research suggests that maternal influenza immunisation reduces the likelihood of premature and low birth-weight infants.[10]

Concerns about the use of mercury – The influenza vaccines do not contain preservatives such as thiomersal (mercury).[9]

Protecting newborn infants – Mothers who are immunised during, or prior to, pregnancy are likely to pass on some resistance to their infant. A randomised, controlled trial found that vaccination of pregnant women reduced laboratory confirmed influenza cases by 43 – 63% in infants aged less than six months.[11] As neither influenza vaccine is approved for children aged under six months, this is a significant advantage. Parents may also wish to encourage siblings, carers and regular visitors to be vaccinated, in order to build an "immunity cocoon" around infants aged under six months.[12]

Women who are breast feeding – The influenza vaccine is safe for women who are breast feeding and infants who are breast fed may gain some resistance to the influenza virus.[7]

"Why do I need it if it's just the same as last time?"

It is recommended that people receive the influenza vaccine yearly even when the strains remain unchanged. Research has shown that some people will retain functional, cross protective immunity over long periods of time,[13] however, this immune retention cannot be predicted and testing for antibodies is not feasible.

Peak immunity is seen shortly after vaccination, even in patients who have received the vaccine previously, and then begins to slowly decline.[2] Those at the highest risk from influenza have the lowest levels of persisting immunity.[14] Therefore, healthcare providers should encourage regular vaccination even when strains do not change, particularly in high-risk groups such as those aged over 65 years and women who are pregnant.

"It will give me the flu"

It is not possible to contract the influenza virus, or the common cold, from the influenza vaccine.

The vaccine does not contain live or whole viruses. The manufacturing process concentrates, inactivates and breaks the viruses up into protein subunits.[2]

The body's immune response to vaccination, however, can result in symptoms such as fever, soreness and general malaise which may be perceived as "the flu" by the patient. These symptoms are usually mild and brief.

"The vaccine is unsafe"

In a study of vaccine acceptance, the two most common fears about getting immunised were Guillain-Barré syndrome and anaphylactic reactions.[6]

Guillain-Barré syndrome is a rare, but potentially severe neurological condition, where the immune system, often triggered by a previous infection, attacks the peripheral nervous system, leading to weakness or paralysis. A Cochrane review of influenza vaccination found that the syndrome occurred in one person per million vaccinations given, indicating either an extremely rare adverse reaction or a reaction with no causal link.[15]

Anaphylaxis following vaccination is also rare. One study reported that anaphylaxis occurred in approximately 0.65 people per million vaccinations.[16]

"I'm healthy and strong so I don't need the vaccine"

The seasonal influenza vaccination enhances a healthy immune system and can still provide protection regardless of how robust that person's immunity is. Despite this, healthy people who rarely contract viruses may be less motivated to be vaccinated. It may be helpful to explain that being vaccinated increases herd immunity, thereby protecting those who are less healthy or who cannot be vaccinated themselves.

"It doesn't work"

It is still possible to contract influenza after being vaccinated, particularly if the strains in the vaccine do not match the actual strains that arise during the influenza season. Elderly people, those with chronic conditions that may impair immune responses, pregnant women and infants aged under two years

are more likely to contract influenza. However, the severity of the illness and risk of hospitalisation is likely to be reduced in those who have been vaccinated.[17, 18, 19] In some cases a person may have been exposed to the influenza virus prior to being vaccinated.

"I prefer natural remedies like vitamin C"

There is no consistent evidence to suggest that natural remedies such as garlic or vitamin C are clinically effective in reducing the prevalence or severity of influenza viruses.[20]

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