

# Pandemic planning in the workplace

## A guide for Queensland's infrastructure owners and operators

This fact sheet provides information on masks and antivirals for use by non health care workplaces.

Health care and other workplaces interacting directly with infectious people should refer to more specific advice for their sector, including the *Interim Infection Control Guidelines in Health Care and Community Settings* – annex to the Australian Health Management Plan for Pandemic Influenza.

### Introduction

Images of people wearing masks in public have become symbolic of recent disease outbreaks, including Severe Acute Respiratory Syndrome (SARS), avian influenza and even seasonal flu. However, there is still little scientific evidence about the effectiveness of masks in protecting the public from becoming infected with a pandemic strain of influenza. This is partly because the characteristics of the pandemic influenza virus cannot be fully understood until the virus strain emerges.

Influenza viruses are generally spread by:

- ◇ respiratory droplets from an infected person's coughs or sneezes (these droplets usually only remain in the air for a few seconds and generally travel less than one metre)
- ◇ touching contaminated surfaces (including hands) and then touching the mouth, nose or eyes

Accordingly, the most effective ways people can protect themselves (in the absence of a vaccine) are to:

- ◇ stay one-metre or more away from other people
- ◇ practise good hygiene, such as using tissues to cover the nose and mouth when coughing and sneezing, and washing hands frequently.

Wearing a mask may also help limit the spread of infection, but this alone will not be effective and will not replace the need for other infection control measures.

“ The most effective ways people can protect themselves are to maintain distance from other people and to wash hands regularly. ”

### Guidance for workplaces on masks and respirators

Under the *Occupational Health and Safety (Commonwealth Employment) Act 1991* employers are required to take all reasonable steps to protect the health and safety of their employees while at work. An influenza pandemic is reasonably foreseeable and, as such, employers have a duty of care to plan for potential workplace exposure to a pandemic influenza virus.

In addition to broader planning activities, workplaces should consider the provision of personal protective equipment, such as masks, for use by staff. This is an individual business decision that should be made on the basis of anticipated risk to staff. Risk is higher when staff interact closely with other people (within one metre).

“ Providing masks and other personal protective equipment for use in the workplace during an influenza pandemic is an individual business decision. ”

### Types of masks and respirators

There are different types of masks for different purposes. Should a workplace decide to purchase and stockpile masks, it will be important to understand how and when to use them and to consider shelf-life and storage issues.

During an influenza pandemic, there will be finite supplies of masks available. National and state stockpiles will be prioritised for healthcare workers at increased risk of infection and posing an increased risk of passing infection to other people.

## Face masks

Face masks are loose fitting, disposable masks that cover the nose and mouth and help prevent droplets being spread by the person wearing them.

They include surgical, dental, isolation and laser masks.

Face masks are recommended for people with respiratory symptoms. Wearing a surgical mask can be effective in preventing the wearer from touching their face with contaminated hands or for keeping larger droplets from reaching their nose or mouth.

The level of protection against inhaling respiratory droplets while wearing a face mask is uncertain.

“ Should a workplace decide to purchase and stockpile masks, it is important to understand how and when to use them. ”

## Respirators

Respirators are primarily recommended for health care workers undertaking medical procedures that lead to the generation of aerosols. They are designed to protect the wearer from inhaling very small air droplets that may contain viruses.

They fit tightly to the face so most air is inhaled through the filter material. Respirators should be specially fitted for each person (a procedure called ‘fit-testing’).

Health care staff needing to wear respirators require specific training. Respirators are not recommended for general workplace use.

Respirators can be either air supplying (like the self-contained version used by fire-fighters) or air-purifying (like gasmasks that filter hazards from the air). Most people who use a respirator to minimise exposure to pandemic influenza will use some type of air purifying respirator.

Air purifying respirators can be divided into the following categories:

- ◇ disposable or filtering facepiece respirators: where the entire respirator is comprised of filter material (also known as a P2 or N95 mask)
- ◇ surgical respirators: with the combined properties of a filtering facepiece respirator and a surgical mask
- ◇ reusable or elastomeric respirators: where the facepiece can be cleaned, repaired and reused, but the filter cartridges are discarded and replaced
- ◇ powered air purifying respirators: where a battery powered blower pulls contaminated air through filters, then moves the filtered air to the wearer’s facepiece.

There are certain dust masks sold at home improvement stores that look very similar to respirators but may not provide the same level of protection.

To be suitable for use during an influenza pandemic, respirators should be certified in accordance with Australian Standard AS/NZS1716.

“ Respirators are not recommended for general workplace use. ”

## Staff training

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Should a workplace decide to purchase masks for employees, it is important that staff are correctly trained in how and when to use them. Training will depend on the type of mask and manufacturers’ instructions should be followed.

For example, face masks:

- ◇ should be worn once and then discarded
- ◇ should never be reapplied after removal
- ◇ should not be touched or handled during use
- ◇ must be changed when they become moist
- ◇ should not be left dangling around the neck.

Visit the Australian Government Department of Health and Ageing website [www.flupandemic.gov.au](http://www.flupandemic.gov.au) for posters with instructions on fitting and removing face masks.

## Shelf life and storage

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Workplaces should note that masks have a limited shelf life and any stocks purchased in advance will need to be stored appropriately, according to the manufacturer’s directions.

## Other protective equipment

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Most workplaces will not require gloves, gowns or protective eyewear. They are recommended in certain health care settings when contact with respiratory secretions or other body fluids is anticipated.

Gloves can prevent the wearer from infecting their hands with a virus, but the virus can still be passed by the contaminated gloves if the wearer touches their nose, mouth or eyes while wearing them. Gloves can never replace regular hand washing.

“ Most non health care related workplaces will not require gloves, gowns or protective eyewear in the event of a pandemic. ”

## Guidance for workplaces on vaccines and antivirals

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### Vaccines

A vaccine contains inactivated viruses that stimulate the body's immune response to make antibodies against the virus; the goal of vaccination is to prevent or control a future infection.

Pandemic influenza vaccines may reduce the risk of serious illness or death, but they will not be available at the onset of a pandemic. The production of a vaccine cannot begin until after the pandemic influenza virus strain has emerged.

Once the virus is identified, it could take about four to six months for the first doses of vaccine to become available in Australia and up to 12 months before there is enough vaccine for all Australians to receive a full course.

“ The seasonal influenza vaccine does not protect against pandemic influenza. ”

### Antivirals

Antivirals are used to prevent or reduce symptoms caused by a virus, by interfering with the ability of the virus to multiply in number or spread from cell to cell.

Antiviral medication may provide some effectiveness in preventing infection and in treating acute influenza infection. There is currently limited and mixed evidence about the effectiveness of antivirals. Antivirals should be administered within 48 hours of the onset of the illness, are not 100% effective and may have side effects.

At present, two commercial antivirals have been developed - Tamiflu® and Relenza®. The suppliers of these medicines have advised that stocks are currently available nationally but, as many illnesses share symptoms with influenza, a doctor's diagnosis and prescription are needed to ensure these medicines are used safely and effectively.

It is not recommended that workplaces stock antivirals. Given the potential for drug resistance to develop, stockpiling or using antivirals unnecessarily will not help public health efforts to control an influenza pandemic.

There will be finite antiviral supplies available during an influenza pandemic. National and state stockpiles will be prioritised for people diagnosed with pandemic influenza and their close contacts, as well as health care workers who are at increased risk of infection and pose an increased risk of passing the infection to other people.

As vaccines and antivirals are only used as one part of a broader response to an influenza pandemic - and are likely to be limited in supply, especially during the onset of a pandemic - other countermeasures such as hand washing and social distancing will be important in slowing the spread of the virus.

“ It is not recommended that workplaces stock antivirals. Antivirals are prescription drugs. ”

## Further information

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This fact sheet supplements advice provided in other Qkit fact sheets and will be updated as new information is known about the characteristics of a pandemic influenza virus and how it is spread.

Please refer to the *Qkit Resources guide: Fact sheet 3* for further information about pandemic influenza ([www.premiers.qld.gov.au/Qkit](http://www.premiers.qld.gov.au/Qkit)).

Australian Standard AS/NZS 1716 – Respiratory Protective Devices

Australian Standard AS/NZS 1715 – Selection, Use and Maintenance of Respiratory Devices

### Acknowledgements

The information contained in this guide has been informed by work completed by the Queensland Pandemic Influenza Taskforce, the Australian Government, and plans developed in other countries including New Zealand, the United States and the United Kingdom.

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Published by the Queensland Government, May 2009, 100 George Street, Brisbane Qld 4000.

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