

# **PANDEMIC INFLUENZA EXPOSURE CONTROL PROGRAM**

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## **INTRODUCTION**

### **Purpose**

The City of Port Moody is committed to providing a safe and healthy workplace for all our staff. A combination of measures will be utilized to minimize worker exposure to pandemic influenza/flu-like illness, including the most effective control technologies available. Our work procedures will protect not only our workers, but also other workers or public who enter our facilities. All employees must follow the procedures outlined in this plan to prevent or reduce exposure to pandemic influenza.

### **Policy**

The City of Port Moody will strive to find ways to control or eliminate exposure pandemic influenza/flu-like illness by developing and implementing proper controls, safe work procedures and educating and training its workers. In an official outbreak, the City of Port Moody will follow direction and controls as specified by the BC Centre for Disease Control and the local Health Authority's Medical Health Officer

### **Scope**

This program applies to all City of Port Moody workers should there be a risk of pandemic influenza/flu-like illness.

### **Definitions**

**BCCDC:** British Columbia Centre for Disease Control

**MHO:** Medical Health Officer

**Pandemic:** An epidemic over a wide geographical area or even throughout the world.

**Influenza:** A common respiratory disease caused by a highly contagious virus that changes slightly from year to year (also known as the flu). Flu-like illness also have the same type of symptoms as influenza that has a known or unknown origin.

**N95 Respirator:** A personal breathing device (respirator) that provides a barrier to protect workers from a variety of communicable diseases (airborne and droplet)

## **RESPONSIBILITIES**

### **Management**

- Ensure that the materials (for example, gloves, alcohol-based hand rubs, and washing facilities) and other resources such as worker training materials required to implement and maintain the plan are readily available where and when they are required.
- Select, implement and document the appropriate site-specific control measures.
- Ensure that Supervisors and workers are educated and trained to an acceptable level of competency.
- Ensure that workers use appropriate personal protective equipment.
- Conduct a periodic review of the plan's effectiveness. This includes a review of the available control technologies to ensure that these are selected and used when practical.
- Ensure that a copy of the exposure control plan is available to workers.
- Close facilities or limit services to the public if warranted and/or as directed by the applicable health authority.

### **Supervisors**

- Ensure that workers are adequately instructed on the controls for the hazards at the location.
- Ensure that workers use proper respirators, for which they have been fit tested, and the results are recorded.
- Direct work in a manner that eliminates or minimizes the risk to workers.
- Send workers home if they are ill with symptoms associated with the flu and/or have been diagnosed by a medical practitioner to have the flu.

### **Workers**

- Know the hazards of the workplace.
- Follow established work procedures as directed by the employer or supervisor.
- Use of required PPE as instructed.
- Report any unsafe conditions or acts to the Supervisor.
- Know how and when to report exposure incidents.
- Leave work if suffering from the flu and stay home until the symptoms are gone.

### **Human Resources**

- Assist and/or coordinate Fit Testing for workers when required or applicable
- Provide proper training and education to workers on selection, use, inspection, cleaning, maintenance and storage of respirators
- Keeping copies of all fit-testing records and training completed
- Acting as a resource for any workers with questions or concerns regarding the N95 respirators

**NOTE: The City of Port Moody Police/Fire Department may have additional responsibilities and/or Operational Guidelines/protocols as it relates to pandemic response.**

## **PROGRAM DETAILS**

### **Health Hazards**

The effects of pandemic influenza are expected to be much more severe than for seasonal influenza because most people will not have any immunity to the virus.

### **Symptoms**

Seasonal flu affects people to varying degrees, with symptoms including headache, fever, fatigue, sore throat, and runny nose. In some cases, secondary infections such as pneumonia may develop. Symptoms of pandemic influenza are likely to include high fever (higher than 38°C), chest pain, and difficulty breathing, as well as nausea, vomiting and diarrhea.

### **Transmission**

The BC Centre for Disease Control advises that influenza is communicable for 24 hours before the onset of symptoms and 3-5 days afterward; this may be longer in some children and some adults. This may vary depending on the flu strain.

Pandemic influenza is spread in the same way that seasonal influenza is spread. Exposure to the virus may occur in a variety of ways, including the following:

- Shaking hands with an infected person or touching a surface contaminated with the virus, followed by touching one's eyes, nose, or mouth
- Infectious droplets from a coughing or sneezing person landing in the eye or onto the moist inner surfaces of the nose or mouth
- Breathing infectious airborne droplets or particles (from coughing, sneezing, or aerosol-generating medical procedures on infected patients)
- Sharing food items or utensils with an infected person
- Exposure to the virus in sewage

### **Risk Identification and Assessment**

The extent of control measures outlined in this ECP will depend on the level of risk to worker health and safety. An important part of the ECP is to ensure all work groups and tasks are identified and assessed for their level of risk. Appropriate protective measures will vary according to the level of risk and kinds of activities an employee performs. Risk levels include:

Three primary routes of transmission are anticipated for pandemic influenza, all of which need to be controlled. These include contact, droplet, and airborne transmission.

#### **Contact transmission, both direct and indirect**

Direct contact involves skin-to-skin contact, such as patient care or emergency response activity that requires direct personal contact. First Aid Attendants or Fire Department first responders could be exposed by direct contact. Indirect contact involves a worker touching a contaminated intermediate object such as a table, doorknob, telephone, or a computer keyboard, and then touching the eyes, nose, or

mouth. Contact transmission is important to consider because influenza viruses can persist for minutes on hands, and hours on surfaces.

### Droplet transmission

Large droplets may be generated when an infected person coughs or sneezes, and also during certain medical procedures such as cough induction. Droplets travel a short distance through the air, and can be deposited on inanimate surfaces (leading to indirect contact transmission), or in the eyes, nose, or mouth.

### Airborne transmission

Airborne (inhalable) particles can be generated from coughs and sneezes. Coughs and sneezes produce both large droplets and smaller airborne particles. The smaller particles remain suspended in air for longer periods, and can be inhaled. The large droplets can also evaporate quickly to form additional inhalable particles. As the distance from the person coughing or sneezing increases, the risk of infection from airborne exposure is reduced, but it can still be a concern in smaller, enclosed areas, especially where there is limited ventilation. As the number of infected people in a room increases, the risk of infection can increase.

The following risk assessment table is adapted from WorkSafeBC Occupational Health and Safety Regulation Guideline G6.34-6. Using this guideline as a reference, we have determined the risk level to our workers, depending on their potential exposure in the workplace.

See Appendix A for the level of risk and risk controls in place for these workers.

**Table 1: Risk assessment for pandemic influenza**

<b>RISK LEVEL</b>	<b>Low Risk</b>	<b>Moderate risk</b>	<b>High risk</b>
	Workers who typically have no contact with people infected with pandemic influenza	Workers who may be exposed to infected people from time to time in relatively large, well-ventilated workspaces	Workers who may have contact with infected people or with infected persons in small, poorly ventilated workspaces
<b>Hand Hygiene</b>	<b>Yes</b> (washing with soap and water, using an alcohol-based hand rub, or using hand wipes that contain effective disinfectant)	<b>Yes</b> (washing with soap and water, using an alcohol-based hand rub, or using hand wipes that contain effective disinfectant)	<b>Yes</b> (washing with soap and water, using an alcohol-based hand rub, or using hand wipes that contain effective disinfectant)
<b>Disposable gloves</b>	Not required	Not required, unless handling contaminated objects on a regular basis	<b>Yes</b> , in some cases, such as when working directly with pandemic influenza patients
<b>Aprons, gowns, or similar body protection</b>	Not required	Outbreak/transmission dependent.	<b>Yes</b> , in some cases, such as when working directly with pandemic influenza patients
<b>Eye protection – goggles or face shield</b>	Not required	Outbreak/transmission dependent	<b>Yes</b> , in some cases, such as when working directly with pandemic influenza patients
<b>Airway protection – respirators</b>	Not required	Not required unless likely to be exposed to coughing and sneezing	<b>Yes</b> (minimum N95 respirator or equivalent)

## **Risk Control**

The Regulation requires us to implement infectious disease controls in the following order of preference (Hierarchy of Controls):

- 1. Elimination**
- 2. Engineering controls**
- 3. Administrative controls**
- 4. Personal Protective Equipment (PPE)**

Elimination of face-to-face contact is the best control possible. This would include closing facilities and reception counters, relying on phone, email or regular mail to answer public questions. Limit meetings and rely on conference calls, mail or messenger tools. Take financial transactions by electronic means rather than cash or cheque at municipal counters.

Engineering controls would be such things as working from inside an enclosure when receiving bill payments in the Finance Division or selling passes at parks and recreation facilities. This will not prevent all exposure so Administrative and/or PPE will be required.

Administrative controls include hand washing and cough/sneeze etiquette. A policy of no hand shaking at meetings may also be a suitable control.

Personal Protective Equipment would be the wearing of respirators, coveralls/turnout gear, gloves, goggles and/or face shields.

## **Safe Work Procedures**

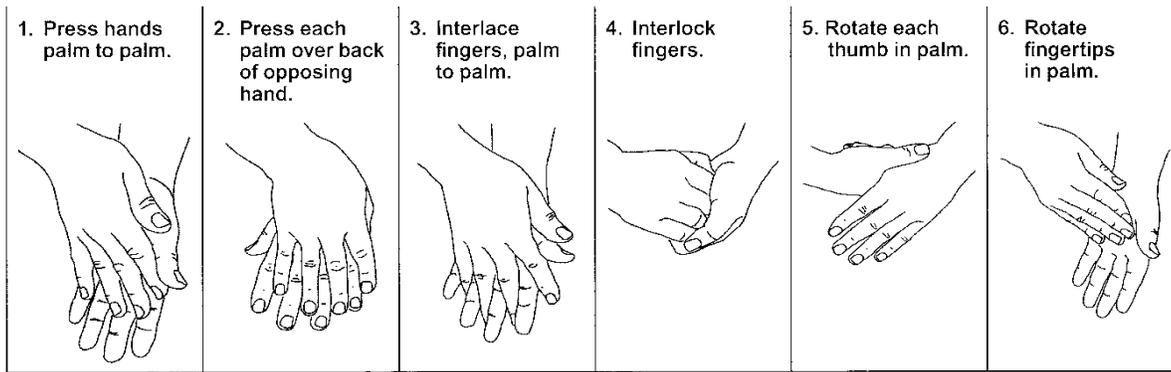
### **Hand Washing**

Hand washing is one of the best ways to minimize the risk of infection. Proper hand washing helps prevent the transfer of infectious material from the hands to other parts of the body – particularly the eyes, nose and mouth – or to other surfaces that are touched.

Wash your hands immediately:

- Before leaving a work area
- After handling materials that may be contaminated
- Before eating, drinking, smoking, handling contact lenses, or applying makeup.

### ***Hand Washing Procedure***



Use soap and warm running water; it does not have to be hot to be effective. **If water is unavailable**, use a waterless hand cleanser that has at least 60% alcohol. These are available through Stores. Follow the manufacturer's instructions on how to use the cleanser. Wash and rinse your hands for at least twenty seconds.

### Cough/Sneeze Etiquette

Workers are expected to follow cough/sneeze etiquette, which is a combination of measures that minimizes the transmission of diseases via droplet or airborne routes. Cough/sneeze etiquette includes the following components:

- Cover your mouth and nose with a sleeve or tissue when coughing or sneezing
- Use tissues to contain secretions, and dispose of them promptly in a waste container
- Turn your head away from others when coughing or sneezing
- Wash hands regularly

### Symptoms of Influenza

During an outbreak, if workers become ill with influenza, they should stay home. If they develop symptoms of influenza while at work, to minimize the potential further spread of the influenza, they should leave the workplace. Workers should only return to the workplace once they have recovered from influenza and no longer show symptoms. Workers should inform their Manager or Supervisor if they are ill with influenza.

### Use of N95's

The N95 mask is typically worn by workers directly involved in an **aerosol** generating medical procedure (as defined by Health Canada). The Fire Department would be a primary of an N95 mask as a first responder as their situations and circumstances may be unpredictable. An N95 mask is a protective barrier that is worn on the face, covers at least the nose and mouth, and is used to contain large droplets generated during coughing and sneezing. N95s help minimize the spread of potentially infectious material. N95 masks must be fit tested as per the City of Port Moody Respiratory Protection Program. See Appendix B, C and D – Instructions for Fitting N95 Respirator.

**NOTE: The City of Port Moody Police/Fire Department will have additional responsibilities and/or OG's/protocols as it relates to pandemic response.**

## **Implementation Plan**

In the event of a Phase 4 Pandemic Alert and/or Phase 5/6 Pandemic Alert (See Appendix E - Pandemic Influenza Phases) the following risk control processes will be instituted. Signage may be required on facilities to ensure patrons/customers do not enter facilities if they are experiencing symptoms or have been exposed via travel/contact etc. (See Appendix F)

### **Low Risk**

- All workers will be instructed in hand washing and cough/sneeze etiquette
- Sick workers will be encouraged to remain at home

### **Moderate Risk**

- All workers will be instructed in hand washing and cough/sneeze etiquette
- Sick workers will be encouraged to remain at home
- Personal protective equipment may be made available if/where required and/or safe distance from patrons (gloves/hand sanitizer etc) See table 1.

### **High Risk**

- All workers will be instructed in hand washing and cough/sneeze etiquette
- Sick workers will be encouraged to remain at home
- Personal protective equipment will be made available
- Mandatory use of all required personal protective equipment
- Standard de-contamination of equipment, clothing and personnel is required

In the event of a Phase 6 Pandemic the City Emergency Operations Centre may be activated and various work areas may be closed as directed until such time as they recommend the resumption of regular work activities. The City will follow the direction of the local Health Authority and/or BC Centre for Disease Control and/or provincial/federal government.

## **Health Monitoring**

Workers will promptly report any symptoms of pandemic influenza/flu-like illness to their Manager or Supervisor and the first aid attendant.

## **Record Keeping**

The City of Port Moody will keep records of instruction and training provided to workers regarding pandemic influenza, as well as respirator fit tests and first aid records.

## **TRAINING**

Should there be a threat of pandemic influenza/flu-like illness; workers will receive training and or information on the following:

- The risk of exposure to pandemic influenza, and the signs and symptoms of the disease
- Safe work procedures to be followed, including hand washing and cough/sneeze etiquette
- Location of washing facilities, including dispensing stations for alcohol-based hand rubs
- Proper use of a N95 respirator if/when required
- How to seek first aid
- How to report an exposure to, or symptoms of, pandemic influenza

Training will be in form of staff bulletins, email communication and intranet postings. Should presentations be made available from Public Health or the local Health Authorities, these will be made available to staff where required.

## **DOCUMENTATION**

Appendix A –Pandemic Influenza Risk Assessment Chart

Appendix B – Instructions for Fitting N95 Respirator: DUCKBILL STYLE

Appendix C – Instructions for Fitting N95 Respirator: CUP STYLE

Appendix D – Instructions for Fitting N95 Respirator: FLAT FOLD THREE PANEL STYLE

Appendix E – Pandemic Influenza Phases

Appendix F – Sample Pandemic Sign



## PANDEMIC INFLUENZA RISK ASSESSMENT CHART

POSITION	LEVEL OF RISK	CONTROL PROCEDURES
Internal office staff	Low	Regular and effective hand hygiene
Front line customer service staff	Low/Moderate	Regular and effective hand hygiene/PPE if/where required
First Aid Attendant	Moderate	Regular and effective hand hygiene/PPE if/where required
Lifeguard	Moderate	Regular and effective hand hygiene/PPE if/where required
Park Caretaker/Cleaning Staff	Moderate	Regular and effective hand hygiene/PPE if/where required
Engineering employees who have contact with sewage	Moderate/High	Hand hygiene, disposable gloves, disposable coveralls, rubber boots, goggles and face shield, N95 respirator or equivalent  *NOTE: This will depend on the nature of the outbreak and transmission/exposure. The City will follow direction given by the local health authority/ BCCDC/government agencies with regard to PPE etc.
Firefighter/Police (First Responders)	High	Hand hygiene, disposable gloves, turnout gear, goggles and/or face shield, N95 respirator.

**Note: Risk levels may increase or decrease depending on the nature of the outbreak and/or if there is local community cases of the virus etc. The City will follow direction given by the local Health Authority/BCCDC/WHO/Government Agencies**

## Instructions for Fitting N95 Respirator: DUCKBILL STYLE

The following instructions must be followed **each time** the respirator is worn. Before donning, inspect the respirator to ensure it is not damaged, soiled, or crushed and the straps are intact with good elasticity. Replace the respirator with a new one if any of these problems are observed.

**1**



Separate the edges of the respirator to fully open it.

**2**



Slightly bend the nose wire to form a gentle curve.

**3**



Hold the respirator upside down to expose the two headbands.

**4**



Using your index fingers and thumbs, separate the two headbands. Ensure the metal nosepiece is on top.

**5**



While holding the headbands, cup the respirator under your chin.

**6**



Pull the headbands up over your head.

**7**



Release the lower headband from your thumbs and position it at the base of your neck.

**8**



Position the top headband on the crown of your head.

**9**



Form the nosepiece across the bridge of your nose using two fingers on each hand, press inward, moving your fingertips down both sides of the nosepiece.

**10**



Continue to adjust the respirator and secure the edges until you have a good comfortable fit.

**11**



Fit check the respirator by placing both hands completely over the respirator and exhaling. If you feel air leaks around your nose, adjust the nosepiece as described in step 9. If air leaks along the edges, adjust the straps.

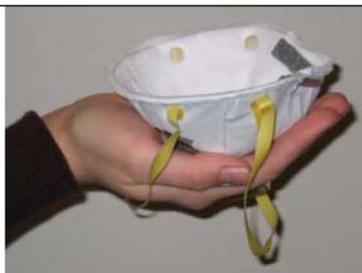
**DO NOT** enter any area that contains a hazardous atmosphere unless you have a properly fitted respirator.



## Instructions for Fitting N95 Respirator: CUP STYLE

The following instructions must be followed **each time** the respirator is worn. Before donning, inspect the respirator to ensure it is not damaged, soiled, or crushed and the straps are intact with good elasticity. Replace the respirator with a new one if any of these problems are observed.

1



Cup the respirator in your hand with the nosepiece facing your fingertips and the straps hanging below the hand.

2



Position the respirator under your chin and tilt the nosepiece onto your nose.

3



Pull the top strap up and position it on the crown of your head

4



Pull the bottom strap up and position it on the nape of your neck.

5



Form the nosepiece across the bridge of your nose using two fingers on each hand, press inward, moving your fingertips down both sides of the nosepiece.

6



Seal check the respirator by placing your hands gently on the respirator and exhaling. If air leaks around your nose, readjust the nosepiece as described in step 5. If air leaks at the respirator edges, adjust the straps along the sides of your head and do another fit check.

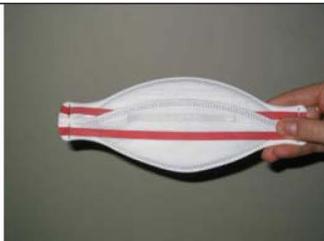
**DO NOT** enter an area containing a hazardous atmosphere if you cannot get a good fit. See your manager.



## Instructions for Fitting N95 Respirator: FLAT-FOLD THREE PANEL STYLE

The following instructions must be followed **each time** the respirator is worn. Before donning, inspect the respirator to ensure it is not damaged, soiled, or crushed and the straps are intact with good elasticity. Replace the respirator with a new one if any of these problems are observed.

1



Remove respirator from package and hold with straps facing up. Place the bottom strap under the centre flap (where the ATTENTION statement is located)

2



Open top and bottom panels, bending the nosepiece in a slight arc. Straps should separate when panels are open. Ensure bottom panel is unfolded and completely opened.

3



Place the respirator on your face ensuring the foam is on your nose and the bottom panel is under your chin. Hold the panel securely in place while pulling the straps over your head.

4



Place the bottom strap on the nape of your neck and the top strap on the crown of your head.

5



Form the nosepiece across the bridge of your nose using two fingers on each hand, press inward, moving your fingertips down both sides of the nosepiece.

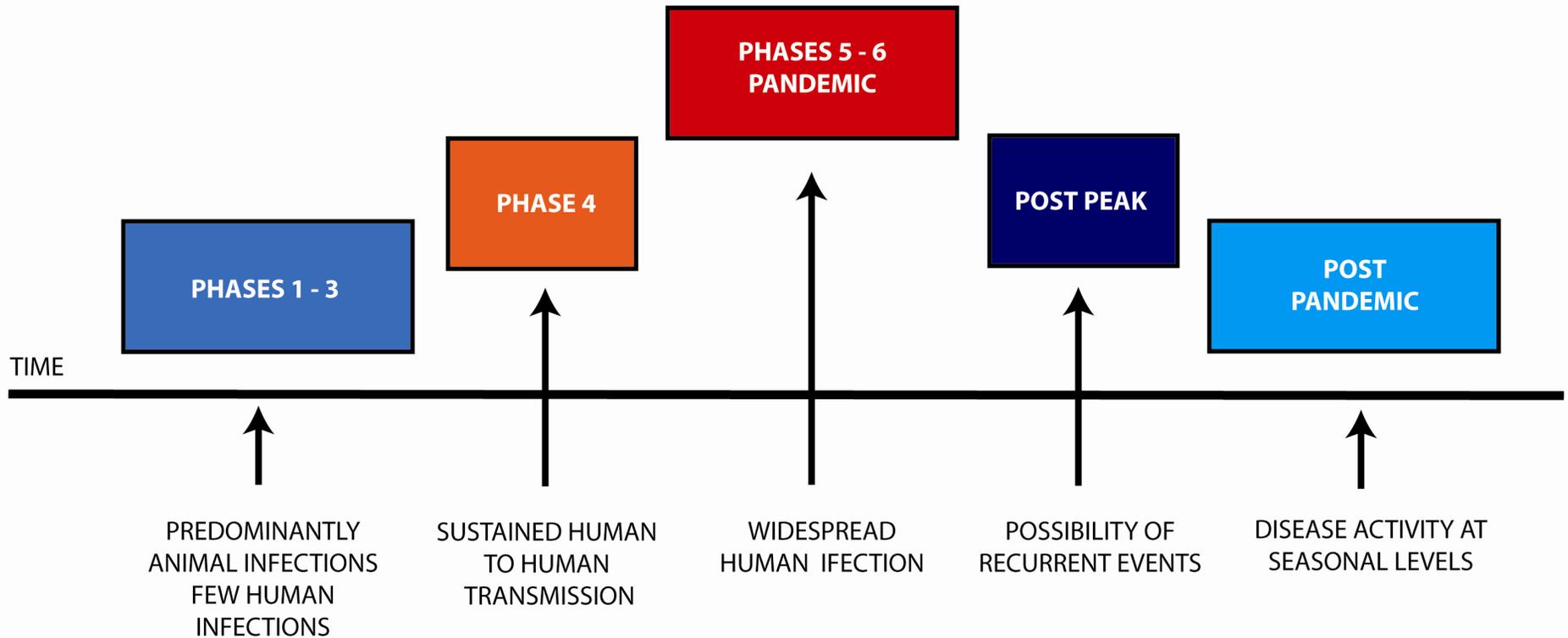
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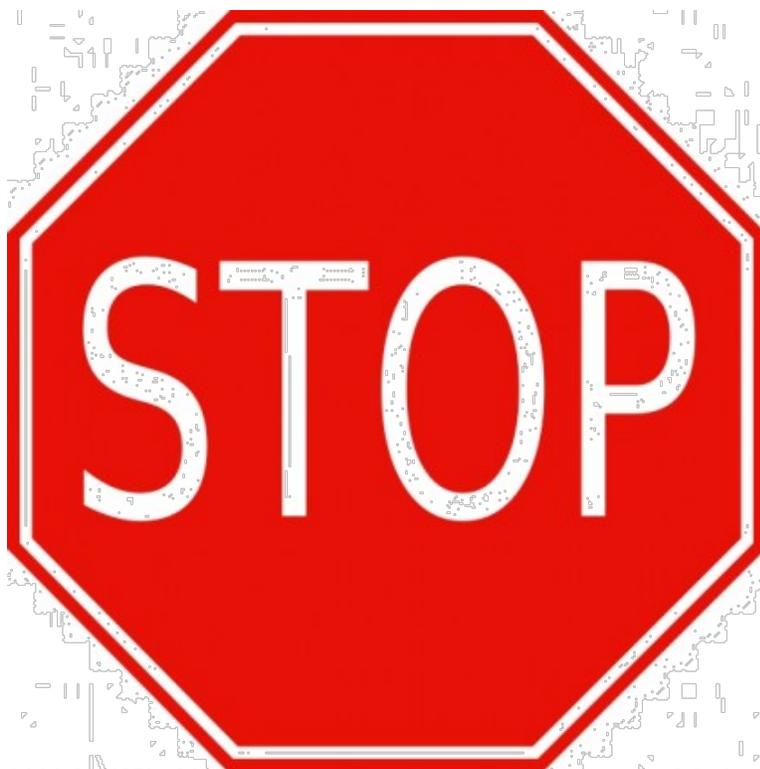
Fit check the respirator by placing your hands gently on the respirator and exhaling. If air leaks around your nose, readjust the nosepiece as described in step 5. If air leaks at the respirator edges, adjust the straps along the sides of your head and do another fit check.

**DO NOT** enter an area containing a hazardous atmosphere if you cannot get a good fit. See your manager.

# PANDEMIC INFLUENZA PHASES



# SAMPLE PANDEMIC SIGNAGE



**PLEASE DO NOT ENTER THE BUILDING IF YOU HAVE:**

- **(LIST SYMPTOMS)** (eg. COUGH, FEVER OR EXPERIENCING BREATHING DIFFICULTIES AND/OR
- **BEEN TO AN IMPACTED AREAS (LIST COUNTRIES AFFECTED HERE)** AND/OR
- **BEEN IN CONTACT WITH SOMEONE FROM AN IMPACTED AREA OR HAS BEEN EXPOSED**

**FOLLOW THE DIRECTION OF THE LOCAL HEALTH AUTHORITY,  
BC CENTRE FOR DISEASE CONTROL AND  
WORLD HEALTH ORGANIZATION**

