

City of Richmond

Report to Committee

To:	Community Safety Committee	Date:	August 28, 2009
From:	Phyllis L. Carlyle General Manager, Law & Community Safety	File:	09-5125-03-12/Vol 01
Re:	Pandemic Plan		

Staff Recommendation

- 1. That the Pandemic Plan dated August 28, 2009, be approved.
- 2. That the planning and response strategy specified in the Pandemic Plan be endorsed.

Phyllis L. Carlyle General Manager, Law & Community Safety (604-276-4104)

Att. 1

FOR ORIGINATING DEPARTMENT USE ONLY			
ROUTED TO: Major Projects Olympic Business Office Finance Purchasing City Clerk Human Resources Information Technology Engineering Public Works Fire Rescue Law Parks Building Approvals Development Applications Transportation		CONCURRENCE OF GENERAL MANAGER	

August 28, 2009

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REVIEWED BY TAG	YES	NO	REVIEWED BY CAO	YES	NO
	$\square \mathcal{M} \mathcal{X}$			GNV	

Staff Report

Origin

The British Columbia Emergency Program Act states that "A local authority must prepare or cause to be prepared local Emergency Management Plans respecting preparation for, response to and recovery from emergencies and disasters". This plan addresses Council's obligations under the Act for a pandemic.

The City of Richmond recognizes the importance of pandemic influenza planning to ensure the continuity of essential operations throughout such a potentially difficult and long-term event. The purpose of this report is to introduce a Pandemic Plan (Attachment 1) for the City.

Analysis

In March 2009, an outbreak of H1N1 (swine) influenza in Mexico quickly grew and travelled worldwide. On June 11, 2009, the first pandemic in 41 years was declared by the World Health Organization for this contagious virus which is now spreading easily person to person, country to country. It appears to have symptoms similar to that of seasonal influenza, although more severe complications can occur. Early predictions are that this pandemic will affect 15 - 35 percent of the population. While it is generally assumed that the first wave has occurred already, a pandemic usually spreads in two or more waves over a 12 to 18 month time frame with each wave likely to be six to eight weeks. Since a pandemic can change, the second or subsequent waves may cause more serious illnesses and deaths than the first. This is an imminent hazard that faces the City of Richmond and planning for the next wave is critical to managing its impacts.

The H5N1 strain of avian influenza also poses as a potential pandemic threat. Although it surfaced 12 years ago, it re-emerged in 2003 as a dangerous new virus affecting numerous countries and demonstrating its ability to kill large numbers of poultry and transmit from birds to humans. Of the 438 individuals that have been infected with H5N1 to date, 262 have died, an extremely high mortality rate. While thought to be the most likely strain of influenza to become the next pandemic, it has not yet mutated to allow for easy person to person transmission. Once this occurs, the pandemic has the potential to have an even greater impact on the population than the H1N1 strain, particularly since it is so virulent. Ongoing research into a vaccine continues, so while this has the potential to become the next pandemic influenza, science may prevent it from becoming so.

The Pandemic Plan represents a critical milestone in the City's planning for, response to, and recovery from the impacts of a pandemic. This is a hazard that may affect our community, stakeholders, businesses and the City's business continuity. The Pandemic Plan was developed with a view to accomplishing the British Columbia Emergency Management System goals of protecting the lives of first responders, reducing suffering, protecting public health, protecting government infrastructure, protecting property, protecting the environment, and reducing social and economic losses.

When a pandemic occurs, the City will continue operations using the prioritization of services identified in the plan. Continuity of government under the pressures of potentially significant absenteeism is a key objective and infection prevention measures in the workplace are a cornerstone of the plan. Decreasing the spread of infection and ability to maintain operations will allow the City to recover more quickly from the pandemic and decrease economic losses.

A communications strategy to keep staff, our stakeholder and partner agencies and the public informed will play an important role in ensuring widespread distribution of our key messages.

Pandemic planning is a dynamic activity, with world events, science and other levels of government and agencies influencing response. The City will continue to maintain situational awareness on research and developments to integrate and incorporate into its planning for the pandemic.

Financial Impact

None

Conclusion

With the next wave of the H1N1 pandemic influenza approaching, it is prudent for the City of Richmond to ensure it is prepared, have established strategies for the provision of essential services to the community, have provisions to protect staff through workplace health and infection prevention measures and be able to support Vancouver Coastal Health Authority in their response to the pandemic.

The Pandemic Plan presented with this report meets one of the City's key emergency planning obligations under the British Columbia Emergency Program Act. It provides for comprehensive and coordinated planning, response, and recovery to a pandemic.

Deborah Procter Manager, Emergency Programs (604-244-1211)

DP:dp



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Executive Summary

The City of Richmond recognizes the importance of pandemic influenza planning to ensure the continuity of essential operations throughout such a potentially difficult and long-term event. A pandemic influenza is rated as one of the highest threats to the public, business interests, and the community-at-large due to the potential financial, psycho-social, and health impact extended over an estimated 18 - 24 month period. The emergence of the H1N1 virus in early 2009 demonstrates that pandemics do occur and remain an unpredictable event for which we must plan.

A pandemic influenza has the ability to place a significant strain on municipal and emergency response sectors, community support services, health care services, and local businesses and residents. Without adequate planning and coordination, a severe pandemic could also result in significant economic, social and business disruption throughout the City of Richmond.

Influenza viruses mutate, creating new viruses to which people have no resistance. Since they are always evolving, plans and strategies will have to reflect the dynamic nature of outbreaks of new viruses and the current epidemiology of the strain.

The planning required for a pandemic is extensive, and should be on-going even as viruses evolve. Severity, populations at risk and rates of illness and death remain unknown and unpredictable until a new strain of an influenza virus actually emerges and develops into a world wide pandemic. As a result, health experts around the world continue to work to characterize the epidemiology and develop interventions that intend to reduce the overall impact of a pandemic across all levels of society.

Municipal governments have key responsibilities during a pandemic. These include:

- Protecting the health and wellness of City staff members;
- Ensuring the delivery of essential City services;
- Minimizing the financial impact; and
- Supporting local health authority.

To enable the City to meet these responsibilities, a number of business continuity, workplace health, and support services strategies have been developed. These strategies are essential, regardless of the severity of the pandemic. However, it should be noted that while the overall response framework needs to be well established, details of the individual response strategies will have to be flexible and adaptable to the known characteristics of the given pandemic at hand.



Acknowledgments

The City of Richmond acknowledges the Government of Canada, through the Joint Emergency Preparedness Program (JEPP) for providing financial support for the development of this plan and Global Consulting for their assistance in preparing this plan.



1.0 Plan Authority

The City of Richmond has developed this plan with an understanding of provincial legislation and regulations pertaining to the responsibilities of local government in preparation for, and in response to a pandemic influenza.

1.1 Applicable Legislation

The following legislation is relevant and applicable to a pandemic:

Federal:

- Canada Health Act, 1985 and regulations
- Emergencies Act, 1985 and regulations
- *Quarantine Act*, 2005 and regulations
- Canadian Human Rights Act, 1985 and regulations

Provincial:

- B.C. Emergency Programs Act, 1996 and regulations
- Health Authorities Act
- Coroners Act, 2007 and regulations
- Public Health Act, 2008 and regulations
- Workers Compensation Act, 1996 and regulations

Municipal:

Emergency Management Organization Establishment, Bylaw 7898, 2005

1.2 Other Relevant Documentation

- Vancouver Coastal Health Authority, *Richmond Health Service Delivery Area* Pandemic Plan, September 2007 <u>http://www.vch.ca/pandemic/plans.htm#richmond</u>
- Vancouver Coastal Health Authority, *Pandemic Influenza Regional Response Plan*, October 2006 <u>http://www.vch.ca/pandemic/</u>
- British Columbia Centre for Disease Control, *Pandemic Influenza Preparedness Plan, Guideline for Planning Response and Recover,* August 2005



http://www.bccdc.ca/NR/rdonlyres/E8A1EB1F-0946-41BE-87CD-087C9C3A6168/0/Epid_Guidelines_PandemicPlan_20090609.pdf

- British Columbia Pandemic Influenza Consequence Management Plan, 2009
 http://www.pep.bc.ca/hazard_plans/Pandemic_Influenza_Consequence_Management_Plan.pdf
- British Columbia Pandemic Influenza Preparedness Plan, Managing Pandemic Influenza, A Guide for BC Local Governments, October 2005 http://www.health.gov.bc.ca/library/publications/year/2005/managing_pandemic_influenza.pdf
- The Canadian Pandemic Influenza Plan for the Health Sector, updated 2009 http://www.phac-aspc.gc.ca/cpip-pclcpi/index-eng.php
- Public Health Agency of Canada guidelines specific to the given pandemic at hand http://www.phac-aspc.ca/index-eng.php



2.0 Pandemic Influenza Information

2.1 Planning Assumptions

Since a pandemic influenza is the result of a new novel influenza virus, it will spread easily person to person and quickly around the world. People will have little or no prior immunity against it and it could cause a larger number of illnesses and deaths than the seasonal flu. Because it is a novel strain of influenza virus, no one is certain what the actual impact will be. It is anticipated that:

- Pandemic influenza will result from a new subtype of influenza A;
- The World Health Organization will identify the circulating pandemic strain;
- The next pandemic will likely first emerge outside of Canada;
- It is likely there may be little lead time (no more than a matter of weeks) from when a pandemic is first declared and when the strain is present in British Columbia;
- People are contagious from before they are symptomatic, so the influenza will be circulating in the community without people being aware that they are spreading the virus;
- A pandemic usually spreads in two or more waves over a 12 to 18 month time frame;
- The first wave may have a mild clinical presentation;
- A second wave may occur within three to nine months of the initial wave and may cause more serious illnesses and deaths than the first;
- The length of each wave is likely to be six to eight weeks;
- The pandemic influenza may be more severe than seasonal influenza with an estimated 15-35 % off sick at any given time;
- The pandemic influenza can arrive at any time of the year (not necessarily during the usual influenza season);
- The severity and range of health impacts and effective mitigation strategies could remain very much unknown until the specific pandemic influenza appears;
- The impact of a pandemic influenza could be intense and sustained, and if so, could cause social and economic disruption. As a result, it may not be "business as usual" when it comes to the provision of services in all sectors during a pandemic;
- Everyone will be susceptible during a pandemic influenza. Certain groups may be more at risk than others, but this will not be known until the circulating strain emerges;



- Care may be provided in alternative care site settings if health facilities become overwhelmed by the influx of pandemic influenza patients;
- Some health care services may be deferred or cancelled;
- The vast majority of people who do get sick with pandemic influenza will not require hospitalization. Most patients will be able to recover with some other form of assistance, or even self-care at home;
- While vaccine is the primary means of prevention of annual influenza, the pandemic influenza vaccine may not be available during the early stages of the pandemic. Therefore, plans for the first wave should assume a vaccine will not be available; and
- There will be increased demand for information regarding infection prevention measures guidelines and personal protection measures.

2.2 Background and Context for Planning

2.2.1 What is Influenza?

Human influenza, or the "flu," is a common respiratory disease caused by the influenza virus. Every year, the flu virus causes outbreaks in fall and winter. This is because each year, the flu virus mutates or changes so any immunity our bodies may have built up against previous viruses would not be as effective against this new virus. Pandemics are due to the appearance of new influenza subtypes against which the population has no immunity.

The flu spreads easily from person to person through coughing and sneezing and hands touching contaminated surfaces and then touching your eyes, mouth, or nose. Flu symptoms can appear suddenly and can include (but are not limited to) a fever, cough, fatigue, headache, muscle pain, a runny nose and a sore throat. The worst symptoms usually last about five days, but coughing can last up to two to three weeks. Sometimes children with the flu can have nausea, vomiting, or diarrhoea.

Although colds and other viruses may cause similar symptoms, influenza infections tend to be much more severe than infections from other respiratory viruses. Still, about 20 per cent of persons infected will not have any symptoms. In others, symptoms can be mild to severe. Also important to note is that people are contagious from before they are even symptomatic, so the influenza is circulating in the community without people being aware that they are spreading the virus. However, if infected, very young children, people with chronic medical conditions and the elderly are more likely than healthy older children or adults to get very sick, and more may need to be hospitalized. In Canada between 4,000 and 8,000 people die



each year from seasonal influenza or its complications. People over 65 years are at the greatest risk of dying from the seasonal-flu.¹

2.2.2 What is a Pandemic influenza?

A disease epidemic occurs when there are more cases of that disease than normal. A pandemic is a worldwide epidemic of a disease. A pandemic influenza may occur when a new influenza virus appears against which the human population has little no immunity. With the increase in global transport as well as urbanization and population growth, epidemics of a new influenza virus are likely to take hold around the world, and become a pandemic faster than before. The World Health Organization has defined the phases of a pandemic to provide a global framework to aid countries in pandemic preparedness and response planning. Pandemics can be either mild or severe in the illness and death they cause, and the severity of a pandemic can change over the course of that pandemic.²

2.2.3 History and Risk

The influenza virus is classified into three immunological types: A, B, and C. Influenza A is the only type of influenza that has the potential to bring about a pandemic. Pandemics are due to the appearance of new influenza A subtypes against which the population has little or no immunity.

Type B influenza virus is the strain responsible for smaller outbreaks of the infection, typically affecting children as they have no immunity to the Type B virus. The Type C influenza virus is a very mild strain of the infection with symptoms similar to that of the common cold.

In the 20th century, there were three pandemic influenzas:

- 1918-1919 Spanish Flu (severe; 50+ million deaths worldwide);
- 1957-1958 Asian Flu (serious; 1-2 million deaths worldwide); and
- 1968-1969 Hong Kong Flu (moderate; <1 million deaths worldwide).

¹ HealthLinkBC. *What is Pandemic Influenza?* Pandemic Influenza Series HealthLinkBC File #94a, May 2006. Available from <u>http://www.healthlinkbc.ca/healthfiles/hfile94a.stm</u>

² World Health Organization. *Pandemic preparedness*. Global Alert and Response, 2009. Available from: <u>http://www.who.int/csr/disease/influenza/pandemic/en/</u>



Disease surveillance and attempts to contain a pandemic may slow the spread of the disease, but it is unlikely that a pandemic influenza strain will be stopped once it is easily spreading from person-to-person.

The H1N1 (swine) viruses probably appeared in 1918 and continued to circulate until 1957, at which time they were replaced by the H2N2 (Asian) viruses. The H2N2 viruses were prevalent until 1968, when H3N2 (Hong Kong) strains appeared. The H1N1 virus reappeared in 1977 and did not replace the H3N2 subtype and both subtypes continued to circulate.

Although the H5N1 (avian) strain of avian influenza began before 1997, it was in this year that the virus mutated into a highly virulent form for chickens. The outbreak ended when Hong Kong killed its entire poultry population. It re-emerged in 2004 affecting numerous countries in Asia, demonstrating its ability to kill large numbers of poultry and limited transmission from birds to humans. Of the 421 individuals that have been infected with H5N1, 257 have died, a high mortality rate. While thought to be the most likely to become a new pandemic, it has not yet mutated to allow for easy person to person transmission. Once this happens, it is expected to be the next pandemic.

In March 2009, an outbreak of H1N1 (swine) influenza in Mexico quickly travelled world wide. On June 11, 2009, the first pandemic in 41 years was declared by the World Health Organization. It appears to have a similar spectrum of symptoms to that of seasonal influenza, with the majority of illnesses being mild but having a small proportion of severe disease and complications. Early predictions are that this pandemic will affect 15-35 percent of the population.

Symptoms	Common Cold	Influenza
Fever	Rare	Usual, sudden onset 39°-40°, lasts 3 to 4 days
Headache	Rare	Usual, can be severe
Aches and pains	Sometimes mild	Usual, often severe
Fatigue and weakness	Sometimes mild	Usual, may last 2-3 weeks or more
Extreme fatigue	Unusual	Usual, early onset, can be severe
Runny, stuffy nose	Common	Sometimes

2.2.4 What is the Difference Between a Cold and the Influenza?³

³ British Columbia Ministry of Health. *Pandemic Influenza Preparedness*. Available from: <u>http://www.health.gov.bc.ca/pandemic/symptoms.html</u>



Symptoms	Common Cold	Influenza	
Sneezing	Common	Sometimes	
Sore throat	Common	Sometimes	
Chest discomfort, coughing	Sometimes mild to moderate Usual, can be severe		
Complications	Can lead to sinus congestion or earache	Can lead to pneumonia and respiratory failure; can worsen a current chronic condition; can be life-threatening	
Prevention	Frequent hand-washing	Annual influenza shot and frequent hand-washing	

2.2.5 Infection Timeline⁴

It is important to understand what happens when a person becomes infected.

Exposure – Once an individual has been exposed to the virus, influenza particles make their way to the respiratory system, where they replicate. The incubation period normally ranges from one to three days.

Infectious – As the virus replicates, its numbers rapidly grow within the body. People can be infectious 24 hours before the appearance of any symptoms. Influenza victims are generally infectious for a period of three to five days following the onset of symptoms.

Symptoms – People respond to the influenza virus in different ways, but the most common symptoms include fever, chills, headache, cough, sneezing, body aches, weakness and sometimes vomiting and diarrhea.

Complications – A major threat in past pandemic influenzas has been the tendency for the viral infection to exhaust the body's immune capacity. This leaves the body vulnerable to other diseases, the most common complication being pneumonia.

Even if treated with appropriate medications, such complications from a viral infection can result in prolonged illness or death.

Experts recommend that people with the flu stay home to rest and take care of themselves until 24 hours after they no longer have symptoms.

⁴ British Columbia Ministry of Health. *British Columbia Pandemic Influenza Preparedness Plan, Managing Pandemic Influenza, A Guide for BC Local Governments*. October 2005. Available from: http://www.health.gov.bc.ca/library/publications/year/2005/managing_pandemic_influenza.pdf



2.2.6 How does the Influenza Virus Spread?

Understanding the means of transmission for the influenza virus is essential for developing strategies to prevent infection.

When a person infected with the virus sneezes or coughs, virus particles are released into the air and travel approximately one metre. These particles landing on another person's eyes, nose or mouth or their breathing in these particles can infect an individual. Exposure can also occur through skin to skin contact or shaking hands with an infected person or touching a surface contaminated with the virus and then followed by touching one's own eyes, nose or mouth.

Influenza viruses can survive for:

- 24 48 hours on hard, nonporous surfaces (metal, plastic, wood, etc.)
- 8 12 hours on soft porous surfaces (cloth, paper, tissues, etc.)
- 5 minutes on skin

Routine cleaning destroys the virus on all surfaces, including skin.

2.2.7 Management of Influenza

Non-Pharmacologic Measures

In addition to the previously listed influenza management measures, there are a number of mitigation strategies, such as social distancing, hand washing, and respiratory etiquette, that should be followed as best defence practices during a pandemic. These measures are detailed further in Section 6.4 of this plan.

Vaccines

Vaccination is the most effective way to protect the public from a pandemic influenza virus.

The annual influenza vaccine contains the three influenza virus strains that health experts forecast to most likely cause illness in the upcoming season. Vaccines cause the body to reproduce specific antibodies against the flu virus in the vaccine, providing immunity from the virus. To develop a specific vaccine, the virus must be isolated in the laboratory before production can begin, and it could take four-to-six months before the first shipment of vaccine is available to the provinces during a pandemic influenza. It may also take more than one dose of the vaccine for individuals to build the necessary immunity to a pandemic



virus. During a pandemic, the local Medical Health Officer, in collaboration with the relevant health care agencies and leaders, would provide the necessary information and direction regarding the use of the vaccine.

Antiviral Drugs

Antiviral drugs are used for the treatment of certain viral infections. They can be used early in the course of illness (with the first 48 hours) for the early treatment of influenza by reducing the ability of the virus to reproduce. These drugs reduce symptoms, shorten the duration of the illness and could reduce any serious complications of influenza. In British Columbia, antiviral drugs must be prescribed by a doctor.

Antiviral drugs may be used for prevention or prophylaxis. Antivirals would be taken to prevent an individual from becoming infected either before or after exposure to the virus. There is a risk that the virus could develop a resistance to antiviral treatment if antivirals are overused to prevent or to treat mild illness. Additionally, there is a limited and inadequate supply for this purpose. Finally, their effectiveness against a pandemic influenza is also unknown. It is for these reasons that the use of antivirals as a prophylaxis during a pandemic is not recommended.

Based on recommendations from the World Health Organization, Canada has stockpiled antiviral drugs to be used to treat people during a pandemic. However, the effectiveness of their use is unknown until the virus is actually circulating in the population. Much will depend on the characteristics of the influenza virus causing the pandemic, and its response to the medication. During a pandemic, the local Medical Health Officer, in collaboration with the relevant health care agencies and leaders, would provide the necessary information and direction on the most efficient and effective use of available antivirals.

Antibiotics

Antibiotics are effective against bacteria but are not effective against the influenza virus. For most people, influenza is an upper respiratory tract infection (e.g., in the large airways and throat) that lasts several days and can require some treatment for symptoms. Within days, the human body will eliminate the virus. Antibiotics have no role in treating influenza in otherwise healthy people, although they can be used to treat complications.

During a pandemic, secondary complications, such as bacterial pneumonia are likely to cause severe illness, hospitalization and death in a percentage of those that fall ill. As a result, provincial and local health authorities are currently investigating the types of medications that could be stockpiled to treat such secondary complications during a pandemic, and determining how they will be allocated across the province to both traditional and non-traditional health care facilities.



2.2.8 Pandemic Planning Periods and Phases

The World Health Organization developed a pandemic classification system to provide planners with a reference guide that links response activities to the escalating phases of the evolution of a pandemic virus. The World Health Organization phases are meant to guide planning efforts, and are being used by all levels of government to identify which phase is occurring internationally.

Period	Phase	Description
	Phase 1	No viruses circulating among animals have been reported to cause infections in humans.
Duo do uniu oto lu	Phase 2	An animal influenza virus circulating among domesticated or wild animals is known to have caused infection in humans, and is therefore considered a potential pandemic threat.
Predominately animal infections; few human infections	Phase 3	An animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.
Sustained human to human transmission	Phase 4	Characterized by verified human-to-human transmission of an animal or human-animal influenza reassortant virus able to cause "community-level outbreaks." The ability to cause sustained disease outbreaks in a community marks a significant upwards shift in the risk for a pandemic. Phase 4 indicates a significant increase in risk of a pandemic but does not necessarily mean that a pandemic is a foregone conclusion.
Widespread human	Phase 5	Characterized by human-to-human spread of the virus into at least two countries in one World Health Organization region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.
infection	Phase 6	Characterized by community level outbreaks in at least one other country in a different World Health Organization region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way.

Table 1: World Health Organization Pandemic Periods and Phases



Period	Phase	Description
Possibility of recurrent events	Post Peak	Pandemic disease levels in most countries with adequate surveillance will have dropped below peak observed levels. The post-peak period signifies that pandemic activity appears to be decreasing; however, it is uncertain if additional waves will occur and countries will need to be prepared for a second wave.
Disease activity at seasonal levels	Recovery	Influenza disease activity will have returned to levels normally seen for seasonal influenza. It is expected that the pandemic virus will behave as a seasonal influenza A virus. At this stage, it is important to maintain surveillance and update pandemic preparedness and response plans accordingly. An intensive phase of recovery may be required.

While the World Health Organization phases⁵ represent the international activity level of new virus subtypes, it may not reflect the level of activity in Canada, especially during the pandemic alert and pandemic periods. The differences are due to the fact that it is assumed that the virus will take some time to spread from the initial source country and appear at different times in different communities across Canada.

Therefore, to guide pandemic planning, response, and recovery efforts in Canada, the Public Health Agency of Canada has developed a decimal-point system to link with the World Health Organization phases in order to better represent the pandemic activity level within Canada:

- 0 No activity observed in Canada
- 1 Single case(s) observed in Canada (i.e. no clusters)
- 2 Localized or widespread activity observed in Canada

These activity levels may be used in conjunction with the World Health Organization phases to indicate the activity level within Canada.

⁵ World Health Organization. *Current WHO phase of pandemic alert*. 2009. Available from: <u>http://www.who.int/csr/disease/avian_influenza/phase/en/index.html</u>



Table 2: Example of World Health Organization and Canadian Pandemic Activity Levels⁶

WHO Phase	CDN Phase	WHO/CDN Phase	Situation Description
6	0	6.0	Outside Canada increase and sustained transmission in the general population has been observed. No cases have been detected in Canada.
6	1	6.1	Single human case(s) with the pandemic virus detected in Canada. No cluster(s) identified in Canada.
6	2	6.2	Localized or widespread pandemic activity observed in the Canadian population.

2.2.9 Declaring the Start of a pandemic influenza

While the World Health Organization will declare the onset of a pandemic internationally, Public Health Agency Canada and the B.C. Ministry of Health Services are responsible for monitoring changes in the World Health Organization phases, providing regional statistics, updates, reporting of surveillance activities, and issuing recommendations and health response directives.

2.3 Local Impact and Effects

The following is a list of possible impacts and effects that may be the result of a **moderate to severe** pandemic influenza. The psycho-social effects are included in this table as their impact potential is very high. For instance, if employees do not feel safe in the workplace they may not come to work, so consideration of the psycho-social perspective is an important step in planning.

⁶ Public Health Agency of Canada. *The Canadian Pandemic Influenza Plan for the Health Sector*. Ottawa: 2006. Available from: <u>http://www.phac-aspc.gc.ca/cpip-pclcpi/s02-eng.php#41</u>



INTERRUPTION AND POSSIBLE NEGATIVE IMPACT ON ESSENTIAL SERVICES	 Includes critical community services such as fire, police, water, sanitation, garbage disposal, maintenance of critical infrastructure, road clearing and other essential services, etc. Traditional health services may be overwhelmed. Deaths due to the pandemic virus may also overwhelm funeral and burial service providers. The RCMP may be asked to provide support (e.g., security, crowd control) to Richmond Health during the distribution of antivirals and/or the roll-out of a mass vaccination process. Richmond Fire Rescue may need to provide additional or enhanced medical response to support BC Ambulance, which would require further business continuity planning such as novel shift planning. 	
COMMUNITY AND SOCIAL IMPACTS	 There may be a shortage of essential goods such as personal protective equipment (PPE), fuel, food and medication due to initial hoarding. There will be an impact on the workforce from absenteeism. Public Heath Measures aimed to increase social distancing may result in the closure of day cares, schools, sports and entertainment venues, and faith-based facilities, as well as high density business and entertainment venues, including community centres, pools, arenas and theatres. These closures may disrupt community and family life for residents. Volunteers may withdraw their services for fear of infection. 	
PSYCHO-SOCIAL EFFECTS	 The fear of being in close proximity to those who may be infected could result in much of the population feeling isolated from one another. Many employees and residents may choose/want to stockpile hand sanitizer and wear surgical masks. Historically, families have initially self-quarantined their young during contagious disease outbreaks. Some urban families (as able) may choose to move their children from high population areas to rural low population density areas Many survivors may suffer psychological trauma from: Illness or death of loved ones; Loss of employment; Financial disruption; and/or, Interruption of critical community services. 	
ECONOMIC EFFECTS	 Both global and economic impacts from the next pandemic may be widespread, and are likely to affect all elements of the private and public sectors. Fear of travelling to areas affected by the virus may reduce tourism, thus creating further economic loss. 	



	Many small and medium-sized businesses may struggle with the financial losses resulting from the pandemic; it is possible that they may fail and close. City of Richmond residents or workers may face the temporary loss of jobs and income, resulting in further cash flow reductions in the community.
LOCAL HEALTH IMPACT	A severe pandemic influenza has the potential to significantly impact the population residing within the Vancouver Coastal Health Authority region. The actual impact will not be known until the pandemic virus emerges, and it may be milder or more severe than the projections. It is important to note that approximately 95% of those who become ill will not need traditional medical care. With additional support (such as assistance from friends, family, and neighbours), it is anticipated that these individuals will be able to recover at home with self-care materials and guidelines. ⁷

⁷ For more information on projected health impact estimates, please see Chapter 2 of the Vancouver Coastal Health Pandemic Influenza Plan (May 2006), available from: <u>http://www.vch.ca/pandemic/docs/ch02_health_impact.pdf</u>



3.0 Role of Health / Government Agencies

3.1 World Health Organization

The World Health Organization is a special agency of the United Nations established in 1948 to help people throughout the world attain the highest possible level of health. The World Health Organization has an active world-wide program to monitor influenza and other communicable diseases. The organization will alert world heath partners of emerging diseases/pandemics, provide frequent updates on the international spread of an influenza, such as H1N1 (swine flu) and H5N1 (avian flu), and is responsible for making the declaration of a world-wide pandemic.

3.2 Public Health Agency of Canada

In the event of a pandemic, the Public Health Agency of Canada is the lead organization for coordinating the health response. The Agency's response is managed through the mobilization of their Emergency Operations Centre and liaison with the Ministry of Public Safety.

3.3 Health Canada

Health Canada is responsible for:

- Providing emergency health care for First Nations communities on reserve.
- Providing occupational health care for federal government employees.
- Approval of new drugs and vaccines to treat Canadians and minimize the spread of disease in the event of an outbreak.

Health Canada, in partnership with the provinces and territories, has a plan in place to ensure appropriate steps are taken to protect Canadians, including ensuring that, once one is produced, an influenza vaccine will be available to Canadians at the earliest possible time.

3.4 Provincial Level Response

Under the *Emergency Program Management Regulation*, the British Columbia Ministry of Health Services is responsible for determining the provincial government response to disease and epidemics. This Ministry together with the Ministry of Healthy Living and Sport and Emergency Management British Columbia of the Ministry of Public Safety and Solicitor



General developed the *BC Pandemic Influenza Consequence Management Plan* (2009) for managing the consequences of a pandemic influenza in British Columbia.

Duties under the plan are assigned to the Provincial Health Officer, working with the BC Centre for Disease Control and Medical Health Officers in the regional health authorities.

3.4.1 BC Centre for Disease Control

The BC Centre for Disease Control (BCCDC) supports British Columbia's comprehensive program of communicable disease and environmental health prevention and control by partnering with the province's health authorities, Medical Health Officers and the Provincial Health Officer.

In the context of a pandemic influenza, the BCCDC works with the Provincial Health Officer, the Ministry of Health Services, and other key partners to develop, test and refine the provincial pandemic plan. In particular, the BCCDC and the Public Health Agency of Canada are regarded as the most important Canadian sources of information on managing a pandemic influenza, and in providing the necessary public health recommendations.

Moreover, the laboratory services of BCCDC will support the identification and tracking of pandemic influenza cases across the province.

In the **pre-pandemic** phase, the BCCDC will engage in such activities as refining the vaccine priority groups according to the epidemiology of the influenza virus circulating at the time, establishing allotments of vaccine and antiviral medications based on need, and developing protocols for immunization and antiviral distribution.

During a **pandemic**, the BCCDC bears responsibility for preventing undue vaccine wastage and hoarding, as well as the equitable distribution of antiviral medications. It will communicate the immunization protocols and priorities via the news media. The BCCDC will collect and share updated information on vaccine coverage, and the overall number of cases and deaths related to the pandemic.

3.4.2 Provincial Health Officer

Under provincial legislation, the Provincial Health Officer has the authority to lead the Ministry of Health Services and other stakeholders in planning for pandemic influenza and implementing BC's preparedness plan. The Provincial Health Officer will declare when to activate provincial pandemic plans. The BC Centre for Disease Control's *British Columbia Pandemic Influenza Preparedness Plan* (August 2005) should be referred to for the role of the Provincial Health Officer before, during, and following a pandemic event.



3.4.3 BC Ambulance Service

BC Ambulance Service is coordinated through the Ministry of Health Services. During the pre-pandemic planning period, the Ambulance Service collaborates with health authorities in developing regional and local preparedness plans, including attending planning meetings with local governments and participating in exercises.

BC Ambulance Service will also prepare its own organization for a pandemic, including contingency plans for replacing staff members who become ill and increasing staffing levels to include volunteers to establish additional human resource capacity.

In a pandemic situation, the BC Ambulance Service may engage in a number of activities, including:

- Transport of patients to care facilities in both traditional and non-traditional settings;
- Facilitate inter-facility patient transfers as may be required;
- Liaise closely with Vancouver Coastal Health Authority/Richmond Health Services to receive information about bed availability in respective communities;
- Monitor capacity to deliver ambulance services within normal operational expectations; and
- Activate staffing contingency plans as necessary.

BC Ambulance Service representatives should be asked to liaise with the City's EOC at regular intervals or to provide updates to staffing levels/trends as they arise. BC Ambulance Service will not transport the dead.

3.4.4 Coroners Service of British Columbia

The Coroners Service of British Columbia is responsible for the investigation of all unnatural, sudden and unexpected, unexplained or unattended deaths and will transport the dead under those circumstances. The Coroner is responsible for ascertaining the facts surrounding a death and must determine the identity of the deceased and how, when, where, and by what means the deceased died. The death is then classified as natural, accidental, suicide, homicide or undetermined.

Both a coroner and a physician have the authority to issue a "Medical Certificate of Death." During an influenza epidemic, it is expected that the Chief Coroner, in collaboration with the Provincial Health Officer, would act to waive current processing requirements to allow rapid processing and burial.



3.4.5 Provincial Emergency Program

The Provincial Emergency Program develops and updates multi-agency hazard plans for the Province. PEP will manage a provincial integrated response to a pandemic, focused on consequence management in support of health authorities and local governments.

PEP helped develop and is a signatory of the *BC Pandemic Consequence Management Plan*. Under this plan, PEP is responsible to:

- Establish and coordinate staffing of the Provincial Emergency Coordination Centre and Provincial Regional Emergency Operations Centres to provide support;
- Coordinate the preparation of provincial pandemic response directives; and
- Provide overall direction for finance at the Provincial Emergency Coordination Centre and Provincial Regional Emergency Operations Centre level.

3.5 Vancouver Coastal Health Authority

In managing a pandemic influenza, the City of Richmond will work closely with the Vancouver Coastal Health Authority before, during, and after this public health emergency. The province's Public Health Act makes the Provincial Health Officer and the Medical Health Officer responsible for public health protection. The Act also identifies local governments as also having responsibility to protect public health. The City of Richmond's Medical Health Officer may direct the City to undertake certain actions during any health crisis, including a pandemic influenza.



<u>Vancouver Coastal Health Authority/Richmond Health</u> will have the following specific responsibilities during a pandemic influenza:

Surveillance	 Identify cases and observe early spread of the disease
	 Report cases to surveillance teams.
Vaccine and Antiviral Medications	 Receive and store medications. Administer vaccine at mass vaccination clinics. Set priorities if vaccine in short supply.
Infection Control	Oversee precautions in health care settings.
Public Information	 Set out clear lines of information flow. Provide timely updates to City of Richmond, the province, public, and news media.
Emergency Response	 Establish health organization command structures. Provide health care at normal as well as alternate sites if required.
Community Interface	Advise City of Richmond.
	 Counsel schools and businesses on health protection.
Public Health Measures	 Trace contacts if appropriate. Order quarantine and isolation if indicated. Increase social distance (e.g., closures, event cancellations).

3.5.1 Surveillance

When a pandemic is declared, surveillance activities will be directed by the Public Health Agency of Canada and directed provincially by the BC Centre for Disease Control (BC CDC). Vancouver Coastal Health Authority/Richmond Health Services will participate in these activities, and will enhance regional surveillance activities to monitor for the local introduction and spread of the pandemic viral strain.

3.5.2 Surveillance for School Absenteeism

When a pandemic has been declared, active surveillance for school absenteeism may be initiated to detect the introduction or spread of the pandemic strain. This is coordinated by Vancouver Coastal Health Authority/Richmond Health Services through Public Health Nurses and the Medical Health Officer.





3.5.3 Closure of Facilities

The Medical Health Officer has the authority under the Health Act Communicable Disease Regulation to institute community-based infection prevention measures, including the closure of community facilities. Section 18 states, "A Medical Health Officer may order a publicly or privately operated school, public swimming pool, bathing beach, theatre, recreation hall or any other public gathering place to be closed for the purpose of controlling the spread of a communicable disease."

Examples of public gatherings or facilities/services that may fall within a directive seeking to limit such gatherings include public transit services, childcare facilities, schools, shopping malls/retail settings, places of work, theatres, places of worship, funerals, and community events (e.g., cultural, sporting etc.)

3.5.4 Medical Health Officer Responsibilities

The Medical Health Officer, under the direction of the Provincial Health Officer, will take the lead in providing advice and counsel to local government. In addition, the Medical Health Officer shall take whatever steps are reasonably possible to suppress the disease and protect the public as described in the Public Health Act. The Richmond Health Services HSDA Pandemic Response Plan and the Vancouver Coastal Health Authority Pandemic Influenza Regional Response Plan should be referred to for additional information on the role of the Medical Health Officer before, during and following a pandemic event. See page 1-1 for reference.



4.0 Communications

4.1 Introduction

Accurate, informative and timely communication to City of Richmond staff, community members (the public) and to our pandemic partners/stakeholders (i.e.: Vancouver Coastal Health Authority, provincial government) is a critical component of the overall pandemic response strategy.

This section provides information about the role of communications and outlines the communication plans and activities the City of Richmond would use to provide timely, accurate and credible information to its employees, the public and stakeholders/agencies associated with the pandemic response.

4.2 Communications

This communications section addresses a number of areas critical to successful communications before, during and after a pandemic. It identifies core goals, objectives, strategies, key messages and audiences, approval processes, key spokespersons, media relations and methods of evaluating communication activities and describes specific actions required during the phases/periods of a pandemic (section 2.1.8).

The information needs of internal, external and stakeholder/agency audiences should be assessed during each phase to prepare appropriate messages and information products, and determine strategies. Crisis communication principles are incorporated in each phase.

This communication plan has been developed with consideration of our partners in the community, health sectors and governments at all levels to ensure the common goal of improved readiness to protect the health of the population. It is aligned primarily to support Vancouver Coastal Health Authority's pandemic response.

4.3 Communication Goals (what we want to achieve)

- Provide information to all audiences to assist them in making the best possible decisions about their well-being during all phases of a pandemic; and
- Clearly explain and promote the City of Richmond's Pandemic Plan..



4.4 Communication Objectives (how we intend to achieve our goal)

- Establish a broad network for disseminating information during all pandemic phases;
- Provide clear, accurate messaging to all audiences during all pandemic phases;
- Work in a coordinated effort with all pandemic agencies/partners to release information in a corresponding manner amongst all operational levels.; and
- Firmly adhere to this plan's communications core goals, objectives, strategies, key messages and audiences, key spokespersons, approval processes, media relations and methods of evaluating communication activities.

4.5 Communications Strategy

Communication products that are timely, clearly understood and available through multiple distribution channels will be developed for each pandemic phase.

The pandemic communication strategy is broken down into four pandemic phases/periods, and each phase has its own unique communications requirements:

- 1. Pre-pandemic, predominately animal infections, few human infections (World Health Organization levels 1-3)
- Sustained human to human transmission (ramp-up; World Health Organization level 4)
- 3. Widespread human infection (response; World Health Organization levels 5 & 6)
- 4. Possibility of recurrent events (recovery)

NOTE: the World Health Organization uses a six-phase approach. The grouping and description of pandemic phases have been revised to make them easier to understand, more precise, and based upon observable phenomena. Phases 1–3 correlate with preparedness, including capacity development and response planning activities, while Phases 4–6 clearly signal the need for response and mitigation efforts. Furthermore, periods after the first pandemic wave are elaborated to facilitate post pandemic recovery activities. For more information visit the World Health Organization web site at www.who.int/en/

By following a phased-in approach, the communications needs of internal, external and stakeholder/agency audiences can be anticipated and developed. A range of communication activities will be undertaken at each phase.



4.6 Information Roles and Approval Process

Lead Role

As outlined in section 3.0 of this plan, the Province's Public Health Act gives the Provincial Health Officer and Richmond's Medical Officer the lead responsibility for public health protection.

Vancouver Coastal Health Authority's Vice President, Communications & Community Engagement will be the primary communication lead, responsible for health and communications, in conjunction with Richmond's Medical Health Officer.

Responsibilities include:

- Implement health education campaign; and
- Media inquiries regarding the outbreak.

City of Richmond Role

The City's role is two-fold. It will assist in disseminating Vancouver Coastal Health Authority's issued materials and messaging through its various internal and external distribution channels.

The City also has the important responsibility to provide timely, accurate and clear information internally and externally, about:

- How it is managing the maintenance of essential City services, resources and support services to the community during times of potential high staff absenteeism. If there are any service reductions, facilities closed, courses cancelled, etc; and
- How it is accommodating pandemic-related new services such as alternative care sites, triage centres and other non-traditional health care centres as deemed necessary by Vancouver Coastal Health Authority.

Approval Process

Information, key messages, backgrounders and fact sheets will be developed and preapproved in advance whenever possible.

When an emergency has been declared, the Vancouver Coastal Health Authority information approval process, along with the requirements of the City of Richmond's Emergency Operations Centre (EOC) will be coordinated.



The City of Richmond will follow its established EOC information approval protocols for information pieces. If the EOC is not activated the Senior Communications Officer will coordinate with the Senior Management Team and the Emergency Management Office.

4.7 Key Messages

During a pandemic, Vancouver Coastal Health Authority will take the lead on core message development.

The City's primary messages will express:

- 1. What Vancouver Coastal Health Authority and the City of Richmond are doing to reduce illness and death and minimize societal disruption
- 2. What the public can do to reduce illness and death and minimize societal disruption
- 3. What the City is doing to ensure the maintenance of essential City services, resources and support services to the community during times of potential high staff absenteeism. Clearly and frequently update public on reduced services, facility closures. Educate what essential services means.

For example:

"Vancouver Coastal Health Authority will continue to provide timely and helpful information and advice on how you can protect your health and what to do if you or others become ill."

4.8 Key Spokespersons

Lead: Vancouver Coastal Health Authority

Vancouver Coastal Health Authority is responsible for the official spokesperson(s) in the event of a pandemic. Their primary spokesperson is the Chief Executive Officer or designate. The Medical Health Officer is the primary designate for speaking to and answering media queries.

The City of Richmond

For City related issues and topics, the Senior Manager of Corporate Communications/Emergency Information Officer is the primary spokesperson. Depending on the phase and scope of topic, the Mayor, Councillors or senior City staff may be designated to speak on a topic.



As in all crises, a consistent, identifiable, credible spokesperson will contribute to reducing public anxiety and panic.

As the situation evolves and during each pandemic phase, key spokesperson requirements and roles will be reviewed and evaluated.

Knowledgeable subject matter experts outside the organization may be utilized as required.

4.9 Communications Audiences

From the following lists, we will identify primary audiences (those in a position of high impact) and secondary audiences (those in a position of impact) depending on the pandemic phase. Consideration of these audience's specific needs will be incorporated into information pieces.

Internal

- City of Richmond Mayor and Councillors;
- City of Richmond staff (particularly those dealing with members of the general public and/or vulnerable populations including seniors, children or health compromised individuals);
- Chief Administrative Officer and General Managers;
- Emergency Operations Centre and Call Centre employees;
- Corporate Communications employees;
- Web and Internet Services;
- Unions; and
- Human Resources, Occupational Health and Safety.

Stakeholders, Partners & Agencies

- City customers (i.e.: registrants in City courses & programs, members of community centres);
- Community agencies and groups, e.g. homeless services, settlement and immigration;
- Service providers, emergency shelter services, mental health agencies;
- Other levels of government;
- Neighbouring municipalities; and
- Other communication professionals.



External

- Media TV, radio, print, new technology (Internet), multilingual;
- General public/Richmond residents (recognizing the varying social, cultural and linguistic needs of Richmond's diverse population);
- Business, trade and industry (those situated in Richmond and others who come to Richmond to do business deliver essential resources like food, water, gasoline);
- Volunteer agencies; and
- Visitors/tourist industry.

4.10 Media Relations

The media will be vital to the delivery of timely information to the public during a pandemic.

News reports will be the primary source of information for the vast majority of residents for everything from hand-washing tips to more detailed Vancouver Coastal Health Authority health information, to status of City services and operations.

The media also play a central role in shaping public reaction to the pandemic itself, as well as the public's perception of how efficiently Vancouver Coastal Health Authority, the City and other agencies are responding to it.

The City of Richmond will provide media with:

- A dedicated pandemic influenza media contact and phone number;
- Access to credible spokesperson(s);
- Accurate, consistent, timely and accessible information about City topics/services related to the pandemic;
- Information that is consistent with that from Vancouver Coastal Health Authority, federal and provincial governments and other responding agencies as appropriate; and
- Quick response to rumours or inaccuracies.

Media Relations include on-going media analysis, monitoring to identify trends and assisting in determining strategy and response. Analysis and evaluation will determine the degree to which communications efforts have met objectives.



4.11 Risk Communications

Appropriate risk communication considerations should be applied before, during and after a crisis. Effectively communicating complex, scientific or technical information can improve public responses to a serious crisis. The communication plan takes into account the following:

- Provide information that is relevant and easily understood;
- Protect City of Richmond credibility and reduce the potential for panic;
- Don't over-reassure;
- Don't underestimate risk;
- Acknowledge uncertainty and change of circumstances;
- Acknowledge people's fears and pain;
- Give people things to do to adjust to the new environment;
- Give people a choice of actions to match their level of concern; and
- Promote awareness of the changed environment.

4.12 Evaluation of Communications

Evaluation of the communications functions will improve program delivery and determine if communications is effective in meeting its objectives. The development of evaluation tools to gauge changes in attitudes, behaviours, knowledge, skills, status or levels of functions will be considered for each pandemic period.

Evaluation activities will include monitoring of:

- Media Relations Daily monitoring and analysis of media coverage will determine if the strategy is working and if improvements are required;
- Retaining copies of newspaper clippings and television/radio broadcasts to facilitate lessons learned and evaluation of communications after the pandemic;
- Corporate website pandemic page visits;
- Call centre inquiries and Hot Line inquiries;
- Public presentations; and
- Requests for information.



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5.0 Preparing for a Pandemic

5.1 Corporate Communications

Messages

- External
 - Vancouver Coastal Health Authority education campaign materials;
 - Introduce City's Pandemic Plan (relevant sections to public); and
 - Encourage annual flu shot campaign for residents and local businesses.
- Internal
 - Vancouver Coastal Health Authority education campaign materials;
 - Detailed information and self care instructions; and
 - Encourage annual flu shot campaign for staff.

Information Approval

- Emergency Operations Centre not activated; and
- Senior Manager, Corporate Communications to work with Manager, Emergency Programs.

External Tools

- Refer to Emergency Information Plan for additional, detailed information;
- City Website;
- Spokesperson endorses Vancouver Coastal Health Authority messages to the media;
- Help disseminate Vancouver Coastal Health Authority posters/brochures at City facilities etc;
- Consider multi-lingual materials; and
- Reference to Vancouver Coastal Health Authority, BC Centre for Disease Control and Public Health Agency of Canada websites.

Internal Tools

• Employee intranet;



- Pay notice messages; and
- Face-to-face meetings if taking place, or add onto existing teleconference agendas.

5.2 Essential Services Strategy

- Emergency Programs to coordinate the review and update of pandemic surveys periodically by Division Managers and Department Directors as required;
- Human Resources to develop and review City policies specific to pandemic influenza response, for example, the possibility of limiting use of annual vacation during a pandemic; and
- Directors/Managers to develop strategies to increase social distancing by limiting visitations for public to City Hall, decreasing face to face meeting schedules, increasing teleconferencing, reviewing staff positions for practicality of working from remote locations, telecommuting, etc.

5.3 Workplace Health and Disease Prevention (Occupational Health and Safety)

- Occupational Heath and Safety and Corporate Communication to provide general infection prevention measures education and information to employees;
- Directors/Managers to identify and implement appropriate engineering and administrative controls identifying all services for which residents visit City Hall and other City facilities and develop alternate methods of services (mail, phone, website, drop boxes etc);
- Occupational Heath and Safety to provide usage education informational materials, courses, and at the direction of the Medical Health Officer, other training as required appropriate to the characteristics of the pandemic at hand;
- Encourage flu vaccinations and proper hand washing. Directors/Managers to consider having hand sanitizers in high traffic areas frequented by employees and the public, for instance on customer service counters;
- With advice from the Medical Health Officer, Directors/Managers examine need, accessibility, and acquisition for a multi-year stockpiling strategy of additional supplies such as hand sanitizer and other first aid supplies; and
- Human Resources to create employee call-in process and distribute process and reporting plan to Staff/Directors/Managers/Supervisors as appropriate.



5.4 Community Support Services

• Social Planning to facilitate dialogue with volunteer organizations including, but not limited to, faith based groups, community groups, and other non-governmental organizations to explore strategies to provide community support services.

5.5 Supply Chain Considerations

It is projected that if the world experiences a severe pandemic similar to that of 1918, critical supplies may be difficult to obtain. Those supplies that may be needed during a pandemic ought to be acquired early in the pandemic event, if they are not already stockpiled. Moreover, until a pandemic enters the recovery phase, and businesses have been able to restore their inventories, supply chains may still be impacted and delivery times delayed.

As a result, the City of Richmond should consider the pre-pandemic engagement of critical suppliers to address potential impacts to contractual obligations that could be caused by a pandemic, and how contracted suppliers' plans can link with the City's own pandemic preparedness efforts. Such recommended pre-pandemic steps could include:

- Establishing strong co-supplier relationships to ensure the provision of stock and critical supplies when workforces are reduced across all industries and supply is limited;
- Inquiring whether or not key suppliers have pandemic influenza contingency plans so that the strength of the overall supply chain can be assessed;
- Reviewing sourcing strategies to ensure that multiple suppliers are available, where possible, for critical products and materials. In times of crisis, a single-source strategy will expose organizations to increased risk;
- Ensuring that supplier organizations have increased levels of key inventory items that could be in significant demand during a pandemic, such as health care products;
- Assessing Richmond's reliance on global suppliers, as customs restrictions may tighten in order to contain the spread of the virus in the early stages of a pandemic; and
- Ensure that the contractual agreements contains a Force Majeure clause that specifically addresses pandemic influenza to protect organizations from being committed to any purchase quantity guarantees that will affect the company during an outbreak.
- Identifying critical tasks in the supply management department and redundancies for as many employees as possible in case of illness or absenteeism.



5.6 Support to Vancouver Coastal Health Authority

The City's support to Vancouver Coastal Heath Authority will need to be clarified when a pandemic is declared. The level of support required by the local health authority will depend on the specific characteristics of the pandemic at hand. A variety of possible scenarios for City support have been articulated. These range from "establish plans and procedures to support Vancouver Coastal Health Authority initiatives" to "local government may be expected to provide non-traditional and non-medical facilities, equipment, personnel and services to support health objectives". Some potential sites have been pre-identified. When a pandemic is declared, Emergency Programs will lead a City team to meet with Vancouver Coastal Health Authority to determine the need and the parameters and agreements necessary for use of City facilities for Alternative Care Sites/Triage Sites and Mass Vaccination Clinics (section 6.6)



6.0 **Response to a Pandemic**

6.1 Activation of the Pandemic Plan

As witnessed in 2009, the emergence of a sustained transmission of an influenza virus that will result in a pandemic may occur and spread throughout North America and the world in a very short period of time.

As outbreaks are identified and spread of the virus increases, the World Health Organization, the Public Health Agency of Canada and Vancouver Coastal Health Authority staff would closely monitor the situation and provide updates to the public and municipalities during all phases of the event.

When the potential for a moderate to severe pandemic is evident (higher attack rates of illness, more severe symptoms, and higher mortality rates), the City of Richmond may activate the Pandemic Plan

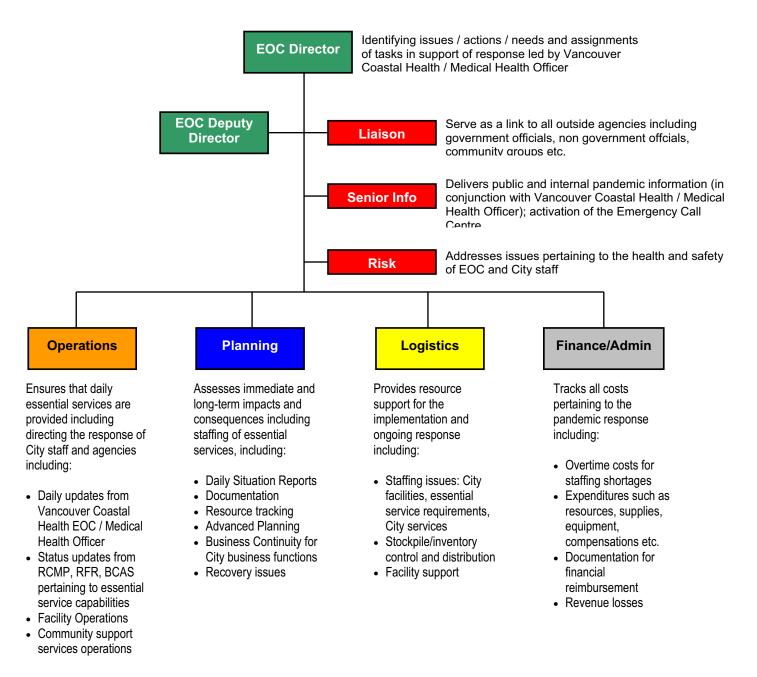
6.2 Response Structure and EOC Applicability

The normal concepts of a 24/7 municipal EOC activation will not apply for response to a pandemic influenza. More than likely, while a pandemic wave might last 6 - 8 weeks, coordinated response efforts would likely be accomplished by conference call.



6.2.1 BCERMS/EOC Organization Chart

This table illustrates the focus of *on-going activities* for the BCERMS functional areas if the structure is implemented by the City during a moderate or severe pandemic. The roles and functions can be assumed through a **virtual EOC** with conference calls, email and intranet as the main means of communications and coordination for the group.





6.2.2 Virtual EOC/Management Team Activities

When a moderate to severe pandemic arrives locally, the pandemic management team including the Medical Health Officer may determine a regular meeting or conference call schedule. Depending on the recommendations for social distancing, the team could meet in person using a large room to enable two metres of social distancing or by conference call.

The Management Team may receive, review or request the following topics and updates for discussion:

- Health updates from the Medical Health Officer or designate;
- Status reports from Corporate Communications and/or other departments;
- Absentee Reports from Directors/Managers; and
- Information on issues or trends through the EOC.

After reviewing the information/reports, the team will be prepared to discuss:

- Health updates/trends/issues for which Directors/Managers should be aware;
- Additional problems/issues brought forward by Directors/Managers to be resolved;
- The staffing and resource needs of Departments/Divisions and possible solutions (redeployment, recruiting, additional supplies etc.); and
- The need for additional staffing/support for community support services or the Emergency Call Centre.

Note: When requesting additional staffing resources, required skill sets will need to be discussed to determine the solution (re-assignment or recruitment). "Just-in-time" training can be provided for those able to perform required services.

6.3 Corporate Communications

Messages

- External
 - Vancouver Coastal Health Authority education campaign materials;
 - Latest information regarding Vancouver Coastal Health Authority and City initiatives (Alternate Care Sites, Triage Centres, Community Support Services, etc.);



- Latest information on essential City services, resource and support services to the community (facility closures, program cancellations etc.); and
- Remind public of City's Pandemic Plan.
- Internal
 - Reinforce Vancouver Coastal Health Authority public health messages;
 - Detailed ongoing information to staff regarding City priorities and their role in delivering essential services to the community;
 - Acknowledgment and appreciation to staff for their efforts during the response (recognize they themselves or an immediate family member may have personally experienced the influenza); and
 - Reference external messages.

Information Approval

- If the EOC is activated, the EOC Director will approve messages; and
- If the EOC is not activated, Senior Manager, Corporate Communications to work with Manager, Emergency Programs, and Senior Management Team.

External Tools

- Media Conferences (Joint, and/or City);
- Regular media briefs and news releases;
- Spokesperson(s) available;
- Consider activation of the Emergency Call Centre;
- City Website;
- Help disseminate Vancouver Coastal Health Authority posters/brochures at City facilities etc;
- Consider multi-lingual materials; and
- Reference to Vancouver Coastal Health Authority, BC Centre for Disease Control and Public Health Agency of Canada websites.

Internal Tools

- Frequent department meetings;
- Employee intranet;



- Pay notice messages; and
- Email.

6.4 Essential Services Strategy

When preparing for a pandemic influenza, all local authorities will be responsible to develop strategies that will lead to the maintenance of essential services (to the best of their ability) and to ensure that support services can be provided to their residents and health authorities during the emergency. In this respect, City of Richmond priorities for pandemic preparedness activities will include:

- Supporting public safety service providers, such as Richmond Fire Rescue and the RCMP, as they activate their business continuity plans and provide essential services;
- Supporting City of Richmond Public Works personnel and contractors, such as water treatment and delivery, waste management, and garbage disposal service providers, as they activate their business continuity plans and provide essential services;
- Ensuring Corporate Communications is prepared to provide information and advice to the public and local businesses through regular media releases and website updates during a pandemic, and to staff members through City intranet sites, bulletins, and various educational materials;
- Reviewing information technology resources and capabilities to support all essential operations during a pandemic; and
- Ensuring Richmond transportation and traffic signals are adequately maintained.

Coordinating with Vancouver Coastal Health Authority for the possible use of facilities in Richmond to facilitate the immunization of the public and the provision of health care in alternate care sites and triage centres.

6.4.1 Pandemic Staffing Strategy

To prepare for a pandemic influenza, all Richmond departments/divisions were asked to complete surveys in which they prioritized their essential services and the positions required to deliver those services during periods of reduced staffing levels. The staffing levels of 85%, 75%, and 60% of normal were chosen as a business continuity strategy to correlate with possible rates of infection from low to high. While most will still be able to provide reduced and prioritized services at 60% staffing levels, the overarching goal is to maintain an adequate level of **essential services** within the City. This may mean a reallocation of staff due to a decrease in activities within certain divisions or a need to maintain essential services within others.



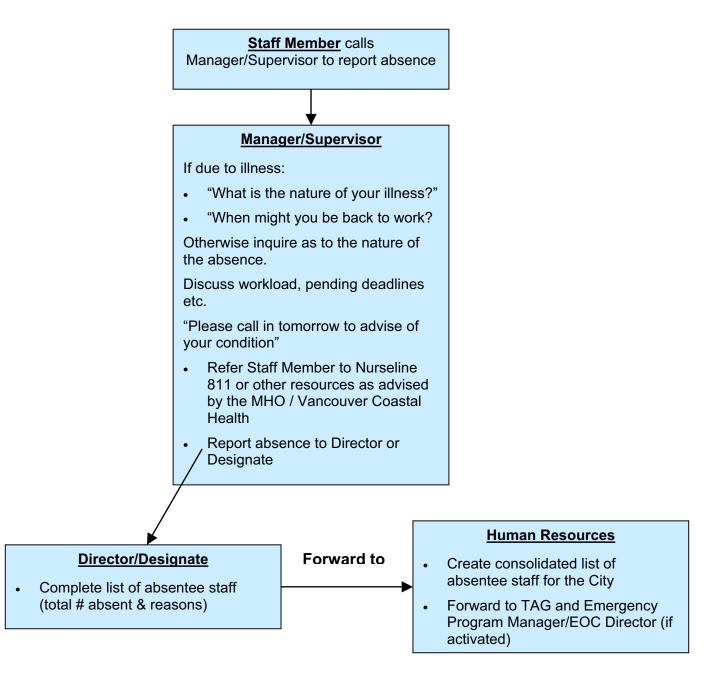
6.4.2 Absentee Reporting

The essential services strategy includes an absentee reporting structure and this process will help to ensure:

- An accurate daily departmental accounting of staff absenteeism and causes;
- A response to maintain essential services by the Virtual EOC/Management Team;
- A means to provide staff with self-care and current health resources information; and
- Contact with staff members who report they are ill.



Absentee Reporting Flowchart





6.5 Workplace Health and Infection Prevention Measures

During a pandemic, one of the primary goals of the City's response will be to activate measures that attempt to decrease the rate of illness among its employees. The following response strategies have been developed.

Reducing the risk of occupational exposure to a pandemic influenza virus can be achieved by:

- 1. Following basic personal hygiene guidelines (e.g., hand washing, cough and sneeze etiquette).
- 2. Implementing engineering and administrative controls.
- 3. Providing additional directives and policies for managers and employees to limit workplace exposure.
- 4. Utilizing personal protective equipment (PPE).

According to Public Health Agency of Canada guidelines, the general public health measures recommended for organizations includes:

- Public education (e.g., good hand washing practices); and
- Social distancing (e.g., fewer face to face meetings and staying at least 1-2 metres away from others who may be infected).⁸

6.5.1 Personal Hygiene

One of the most important strategies to reduce the risk of occupational exposure to a pandemic influenza virus will be using basic infection prevention measures and personal hygiene practices. Educating and training employees in non-pandemic periods as to the proper applications and principles of infection prevention measures will help to ensure that these practices are followed during a pandemic. These practices can also have potential benefits during annual cold and flu seasons, translating into fewer sick days and reduced employee absenteeism year-round.

⁸ Public Health Agency of Canada. *Frequently Asked Questions for Business*. December, 2008. Available from: <u>http://www.phac-aspc.gc.ca/influenza/faq-control-eng.php#36</u>



Hand Washing

Hand washing is the single most effective method of preventing the spread of communicable diseases and infections.

Influenza is typically spread from person-to-person through droplets produced by coughing or sneezing. These droplets can travel up to a metre, be inhaled by others, or land on surfaces such as doorknobs, countertops, toys or utensils resulting in the virus living on nonporous surfaces for up to 48 hours and making these surfaces a common source of infection.

If a person touches an object or surface that has been contaminated by droplets and then directly touches his/her eyes, mouth, or nose, they can catch the flu. Shaking hands with an infected individual who has droplet secretions on their hand can also be a common method of catching the flu.

During a pandemic influenza, strict adherence to hand washing protocols will contribute significantly to the health of staff. Adopting proper hand washing methods cleans away viruses and bacteria that staff may have picked up from other people, contaminated surfaces, or animals.

Staff should wash their hands **before**:

- Handling or eating food;
- Brushing or flossing teeth;
- Inserting or removing contact lens;
- Treating wounds or cuts; and
- Touching the eyes, nose or mouth.

Staff should wash their hands after:

- Preparing food;
- Having any contact with a person who has pandemic influenza;
- Going to the washroom;
- Blowing their nose;
- Coughing or sneezing;
- Handling garbage;
- Treating wounds or cuts; and



• Touching commonly used items, such as door knobs, bus railings, and bank machines.

Hands should be washed when they are dirty and more frequently when someone in the workplace is sick. Soap and warm water should be used to wash hands. Antibacterial soap is not recommended because bacteria can develop a resistance to it. If soap and water are not available, hand sanitizer should be used to disinfect hands. It should be noted that using hand sanitizer is NOT a replacement for hand washing when soap and water are available.

Proper hand washing consists of the following steps:

- 1. Remove jewellery and watches from fingers and wrists.
- 2. Wet hands under warm running water.
- 3. Apply soap and rub hands together for 10 seconds to produce lather.
- 4. Wash all surfaces thoroughly, including wrists, palms, backs of hands, between fingers and thumbs, and under finger nails, for 20 seconds.
- 5. Rinse hands with fingers pointing downward.
- 6. Dry hands with a disposable towel or hand dryer.
- 7. Dispose of the towel in the nearest waste basket.
- 8. Place any jewellery or watches back on fingers and wrists.

Sanitizing your hands properly with an alcohol-based hand sanitizer consists of similar steps and for the same amount of cleaning time.

Cough Etiquette

Infection control practices should also include respiratory ("cough") etiquette, which involves:

- Covering one's nose and mouth with a disposable, single-use tissue when coughing or sneezing;
- If no tissue is available, coughing/sneezing into the upper sleeve;
- Coughing/sneezing away from other people (if possible);
- Disposing of tissues directly after use into a wastebasket; and
- Washing hands after coughing/sneezing, and after handling used tissues.



6.5.2 Engineering Controls

Engineering controls involve making changes to the work environment to remove work place hazards or place a barrier between those hazards and workers. These changes are favoured over others because they make permanent changes that reduce exposure and do not rely on employee or customer behaviour.

An example of an engineering control would be the installation of a physical barrier at customer service counters where staff meet the public, although this is not the only potential solution. An alternate might be to impose a 2 metre separation between staff and the public, or the use of intercoms for communication or mail drops for the exchange of documentation.

6.5.3 Administrative Controls

Administrative controls include controlling employees' exposure by scheduling their work tasks in ways that minimize their exposure levels and creating policies that further prevent infection in the workplace. While engineering controls might be the preferred method of reducing the exposure of staff to infection, administrative controls are the next best alternative. Examples of administrative controls include:

- The discontinuation of unessential travel to locations with high illness rates as identified by the Public Health Agency of Canada and the World Health Organization;
- Utilizing email, websites, and teleconferencing to minimize face-to-face contact between employees and others and, where possible, encouraging flexible work arrangements such as telecommuting or flexible work hours to reduce the number of employees who must be at work at one time or in one specific location;
- Developing policies to minimize contacts between employees and between employees and the public;
- Encouraging employees to make use of annual influenza vaccine programs;
- Providing employees with up-to-date education and training on influenza risk factors, protective behaviours, and instruction on proper behaviours (for example, cough etiquette, and care of personal protective equipment); and
- Providing resources (e.g., tissues, no-touch trash cans, hand soap, hand sanitizer, disinfectants, and disposable towels) that promote personal hygiene based on multiple variables and recommendations from the Medical Health Officer and/or Public Health Agency of Canada.



Directors/Managers should review staff activities to determine if engineering or administrative controls are appropriate or whether other strategies should be developed to increase social distancing by limiting visitations for public to City Hall, decreasing face to face meeting schedules, increasing teleconferencing, reviewing staff positions for practicality of working from remote locations, telecommuting, etc.

6.5.4 Social Distancing

Social distancing refers to the avoidance of limitation of direct physical contact and face-toface interactions that a person might have in their workday in order to reduce the risk of contracting or spreading influenza. Social distancing should start when suspected or confirmed cases of the pandemic influenza virus have appeared in Richmond. Some practical social distancing measures include the following:

- Replacing in-person meetings and interviews, except where absolutely necessary, with teleconferences and electronic communications;
- Since droplets from sneezing and coughing travel for 1 metre, maintaining a minimum distance of 1 to 2 metres when in direct contact with other co-workers, contractors, or the general public, including the avoidance of hand shaking;
- Working from home, if practical and properly supported by IT infrastructure;
- Using common facilities, such as cafeterias, on a rotating basis over extended time periods to reduce the occupant density at any given time; and
- Having flexible work arrangements so as to reduce the average number of persons present in the office at any given time.

6.5.5 Surface Disinfection

To prevent the potential transmission of the influenza virus from surfaces to the mucosa (e.g., by the hands to the eyes, nose, and mouth), surface disinfection practices may be followed as per Table 3:



Table 3: Cleaning Procedures for Common Items⁹

Surface/Object	Procedure	Special Considerations
Horizontal surfaces and shared equipment such as tables, work counters, desks, offices, door handles, copiers, faxes, etc.	 Thorough cleaning with standard cleaning supplies at an increased frequency, if possible, over regular cleaning cycles. 	Regular commercially available cleaning products are sufficient for this purpose.
	2. Cleaning after uncovered coughs or sneezes.	
Walls, blinds, curtains	Should be cleaned thoroughly at an increased frequency, if possible, over regular cleaning cycles with a detergent.	
Floors	Thorough regular cleaning with standard cleaning supplies.	Detergent is adequate in most areas.
Carpets, upholstery	Should be vacuumed regularly and shampooed as necessary.	
Toilets, urinals	 Thorough regular cleaning with standard cleaning supplies. 	
	2. Cleaning after uncovered coughs or sneezes.	

6.5.6 Personal Protective Equipment (PPE)

City of Richmond first responders, first aid attendants, and others may be required to utilize personal protective equipment (PPE) when performing medical procedures in high risk environments and/or in close contact with individuals who have influenza-like symptoms. Examples of personal protective equipment are gloves, goggles, and respirators (e.g., N95 respirators). For PPE to be effective, it is essential that it be:

⁹ Public Health Agency of Canada. *Infection Control and Occupational Health Guidelines During Pandemic Influenza in Traditional and Non-Traditional Health Care Settings*. June 2006. Available from: http://www.phac-aspc.gc.ca/cpip-pclcpi/pdf-e/annex_f-eng.pdf



- Properly and regularly fit-tested;
- Conscientiously and properly worn;
- Regularly maintained and replaced, as necessary; and
- Properly removed and disposed of to avoid contamination of self, others, or the environment.

Please see section 6.4.7 Exposure Control Plan for recommendations for personal protective equipment.

Respirators

Respirators, in general, can be air supplying (e.g., the self-contained breathing apparatus worn by firefighters) or air purifying (e.g., a gas mask that filters hazards from the air). Employees who are deemed to need a respirator to minimize the likelihood of exposure to the pandemic influenza virus in the workplace will use a type of air purifying respirator (e.g., N95 respirator or a half face-mask elastomeric respirator). If an individual is to be issued a mask that is not a normal piece of protective equipment for their job standards they will be provided the same information, training and testing as those individuals that are issued respirators as part of their standard equipment.

N95 Respirators

N95 respirators are disposable or filtering face piece respirators, where the entire respirator face piece is comprised of filter material. N95 respirators are also known as "particulate respirators" because they protect by filtering particles out of the air as the person breathes. They protect only against particles, not gases or vapours. Since airborne biological agents such as bacteria or viruses are particles, they can be filtered by particulate respirators.

It is important to understand that if you are exposed to infectious material while wearing an N95 disposable respirator, your respirator should be considered contaminated. It is discarded when it becomes unsuitable for further use due to unacceptable contamination or soiling, excessive breathing resistance (e.g., particulate clogging the filter), or physical damage. These masks, during a pandemic, once worn should be disposed of properly and not reused.

To provide the highest degree of protection possible, an N95 respirator must achieve a tight seal where the respirator meets the skin of the face. To achieve a tight seal, the respirator must:

- By design, be capable of achieving a tight seal suitable for the individual's facial structure;
- Be suitable for the wearer's facial structure;
- Be properly fitted and fit-checked;



- Be properly worn by the user; and
- Maintain its seal during use.

Users of N95 respirators should always follow manufacturer guidelines and instructions on use.

Elastomeric Half-Mask Reusable Respirator

Elastomeric Half-Mask Reusable Respirators are a reusable rubberized face mask that are designed to house two air purifying cartridges. The City of Richmond, Occupational Health and Safety Respirator Program Guideline outlines the requirements for the mask and filter selection, sizing, and fit-testing requirements. Canadian Standards Association (CSA) Standard Z94.4-0.2 on Selection, Use, and Care of Respirators mandates cleaning and sanitizing as part of the care and maintenance program. The CSA requires the user to follow the manufacturer's instructions or procedures authorized by the program administrator in consultation with manufacturer, or CSA recommended procedures for cleaning and sanitizing.

The disposable filters will be discarded when they becomes unsuitable for further use due to unacceptable contamination or soiling, excessive breathing resistance (e.g., particulate clogging the filter), or physical damage to the canisters, or as directed by the manufacturer and/or the City guidelines.

To provide the highest degree of protection possible, an Elastomeric half-mask respirator must achieve a tight seal where the respirator meets the skin of the face. To achieve a tight seal, the respirator must:

- By design, be capable of achieving a tight seal suitable for the individual's facial structure;
- Be suitable for the wearer's facial structure;
- Be properly fitted and fit-checked;
- Be properly worn by the user; and
- Maintain its seal during use.

Users of Elastomeric half-mask respirator should always follow manufacturer guidelines and instructions on use.

Fit-Testing and Fit Checking

WorkSafeBC and manufacturers of approved N95 respirators (e.g., 3M) and elastomeric halfmask reusable respirators require that certified and regular fit-testing take place for potential users of respirators. Fit-testing determines if the respirator provides a good seal to the face



and involves the application of standardized testing procedures. Once the individuals that may require an respirator have been fit-tested, it should be noted that, when used in practice, the respirator must always be:

- Worn by the user in the correct manner;
- Fit-checked to verify adequacy of fit; and
- Kept free of contamination on the outer and inner surfaces.

Fit checking is a procedure used for fit-tested individuals who are donning their masks for the observation of any the leakage of air around the nose piece and sides of the respirator, demonstrated in the instructions of Donning and Doffing Procedures. This check is used during the donning of each wearing of a respirator.

In addition, the user must be clean shaven where the respirator seals to the face, since the presence of stubble can slightly reduce the seal, and thick facial hair can allow significant air leakage. In a pandemic, use of a respirator with stubble or minor facial hair would be preferable to not using a respirator at all.



Donning and Fit-Checking Procedures

The following instructions must be followed **each time** the respirator is worn. Before putting on the respirator, hands must be washed or sanitized and the respirator inspected to ensure there is no damage to its shell, straps, and metal nose-clip.



1. Cup the respirator in your hand with the nosepiece at fingertips, allowing the head straps to hang freely below hand.



2. Position the respirator under your chin with the nosepiece up.



3. While holding the respirator in place, pull the top strap over your head so it rests high on the back of your head.

4. While continuing to hold the respirator firmly in place, pull the bottom strap over your head and position it around your neck, below your



ears. Untwist the straps. Position the respirator low on your nose.





- 5. Using both hands, mold the nosepiece to the shape of your nose by pushing inward while moving your fingertips down both sides of the nosepiece. **Note:** Always use two hands when molding nosepiece. Pinching with one hand may result in improper fit and less effective respirator performance.
- 6. Fit check procedure: The respirator must be checked before each use. To perform the fit check, place both hands completely over the respirator, being careful not to disturb the position, and exhale sharply. If air leaks around your nose, adjust the nosepiece as described in step 5. If air leaks at respirator edges, adjust the straps back along the sides of your head. Perform fit check again if an adjustment is made.



If a proper fit cannot be achieved, staff should seek their supervisor and not enter an area requiring respirator use.¹⁰

Doffing Procedures

To remove a respirator the following instructions must be followed each time:¹¹



1. Without touching the respirator, slowly lift the bottom strap from around the neck up and over the head.



2. Lift off the top strap without touching the respirator.



3. Discard the respirator in a hands-free waste receptacle and wash or sanitize hands.

¹⁰ 3M Health Care, 3M Canada. *Wear It Right*. 2006. Available from:

http://multimedia.3m.com/mws/mediawebserver?666666UuZjcFSLXTt4X&X4XMXEVuQEcuZgVs6EVs6E666 666--



6.5.7 Exposure Control Plan

Summary and Principal Recommendations

To determine the relative risk exposure levels of the various City of Richmond departments and divisions, a survey based on the WorkSafe BC Occupational Health and Safety Guideline G6.34-6 Exposure control plan – pandemic influenza was circulated to managers and directors in late 2008. Together with the results from the survey questions and in consultation with a medical professional, a series of risk categories and recommendations for exposure control were developed. The results of this process can be found in the Exposure Control Plan Summary Chart in this section.

During an influenza pandemic, it is anticipated that the majority of City of Richmond employees will have a relatively low risk of occupational exposure to the pandemic virus in their workplace. This assumption is based on the principle that employees will be educated on the signs and symptoms of influenza, and be able to screen themselves prior to reporting for work if they have any concerns regarding their health or that of their loved ones. As well, social distancing and screening measures, where relevant and possible, will be implemented at work sites to reduce the risk presented by anyone who is not a City of Richmond employee. Some employees, however, will likely face an increased risk due to the nature of their job responsibilities and the environments in which they work. This is particularly true of Richmond Fire Rescue, RCMP, or first aid attendants.

Determination of Risk Exposure Levels

The primary consideration in determining the exposure level for a particular division or department was based on whether or not employees had contact with the public or the potential for contact with persons known to be infected with pandemic influenza. Those who did not have any public contact were deemed to be low risk. Those employees that would have to have contact with the public during a pandemic or even interact closely with infected persons were classified as moderate or high risk, respectively. The determination of moderate and high risk categories also examined the potential for interactions with the public in medical or emergency situations, particularly for Richmond Fire Rescue members and employees working closely with the public at the RCMP, such as Custodial Guards.

The secondary consideration in determining the exposure levels was the environment in which contact with the public or infected persons might take place. Workplace environments that had poor or no ventilation where public contact occurred in small, confined spaces were also seen to place employees at a higher risk of exposure. Table 5 on the following page details the process utilized to determine a relative occupational exposure rating for City of Richmond staff.



Table 4: Exposure Risk Questions

Question	Answer	Result
1. Does the position typically have face-to-face contact	Yes	Proceed to question 2
with the public as a part of their job function?	No	Classify as LOW risk
2. Does the position's contact with the public occur in relatively large, well-	Yes	Classify as MODERATE risk
ventilated areas (i.e., clerical and administrative staff at front-of-house)?	No	Classify as HIGH risk
3. Does the position's interaction with the public include any contact with persons known to be	Yes	Classify as HIGH risk
infected with the pandemic influenza in any size workspace (<i>i.e.</i> , health care worker or fire fighter)?	No	Classify as MODERATE risk

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Exposure Control Plan Summary

Following a survey of all departments/divisions in early 2009, the following exposure control plan was developed to limit staff exposure to potential pandemic influenza.

Department	Division / Section	Risk Exposure Rating(s)	Exposure Rating(s) Rationale	Recommended Mitigation Strategies	Recommended Personal Protective Equipment	Other Recommendations
Office of the CAO/CPMG		Low	No contact with the public	Frequent hand washing		
<u>م</u>	Budgets and Accounting	Low	No contact with the public	Frequent hand washing		
Services Bus	Business Advisory	Low	No contact with the public	Frequent hand washing		
Pay	Payroll and Accounts	Low	No contact with the public	Frequent hand washing		
Pul	Purchasing	Low	No contact with the public	Frequent hand washing		
Ris	Risk Management	Low	No contact with the public	Frequent hand washing		
Sto	Stores	Low	No contact with the public	Frequent hand washing		
Тах	Taxes	Low		Frequent hand washing		
		Moderate when in direct contact with the public	Contact with the public	Limit public face-to-face interactions and maintain social distance of 1-2 metres		
Tre	Treasury Services	Low	No contact with the public	Frequent hand washing		
Dev	Economic Development	Low	No contact with the public	Frequent hand washing		
Bu	Business Liaison	Low		Frequent hand washing		
Re	Real Estate Services	Low		Frequent hand washing		



Department	Division / Section	Risk Exposure Rating(s)	Exposure Rating(s) Rationale	Recommended Mitigation Strategies	Recommended Personal Protective Equipment	Other Recommendations
		Moderate when in direct contact with the public	Contact with the public	Limit public face-to-face interactions and maintain social distance of 1-2 metres		
Corporate Services	City Clerk's Office	Low Moderate when in direct contact with the public	Contact with the public	Frequent hand washing Limit public face-to-face interactions and maintain social distance of 1-2 metres		
	Human Resources	Low		Frequent hand washing		
		Moderate when in direct contact with the public	Contact with the public	Limit public face-to-face interactions and maintain social distance of 1-2 metres or schedule interviews over the phone		Electronic receipt of job applications
	Customer Service	Low Moderate when in direct contact with the public	Contact with the public	Frequent hand washing Limit public face-to-face interactions and maintain social distance of 1-2 metres	Hand sanitizer	Consider Plexiglas barrier for front counter or other means to maintain 1-2 metres social distance Consider alternate means of doing business, i.e., intercom for information, mail slot. etc.
	Information Technology	Low	No contact with the public	Frequent hand washing		

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Corporate Communications Low No contact with the public Fequent hand washing Schedul (miteriolishing) Mater Services Low Noderate when in Moderate when in the public Low Fequent hand washing Schedul Schedul Public Works Mater Services Low Contact with the public Imm public face-to-face direct contact with the public Fequent hand washing Propriet Schedul Roads and Construction Low Contact with the public Frequent hand washing Propriet Schedul Roads and Construction Low Contact with the public Frequent hand washing Propriet Schedul Roads and Construction Low Contact with the public Frequent hand washing Propriet Schedul Roution Low Contact with the public Frequent hand washing Propriet Schedul Schedul <th>Department</th> <th>Division / Section</th> <th>Risk Exposure Rating(s)</th> <th>Exposure Rating(s) Rationale</th> <th>Recommended Mitigation Strategies</th> <th>Recommended Personal Protective Equipment</th> <th>Other Recommendations</th>	Department	Division / Section	Risk Exposure Rating(s)	Exposure Rating(s) Rationale	Recommended Mitigation Strategies	Recommended Personal Protective Equipment	Other Recommendations
Water ServicesLowModerate when in direct contact with the publicContact with the public direct contact with the publicRoads and constructionLowRoads and constructionModerate when in direct contact with the publicRoads and constructionLowServicesLowFleet and EnvironmentalContact with the public direct contact with the publicFleet and EnvironmentalLowRoads and contact with the public (Patroller, Tuck Driver 1)EngineeringLowModerate when in direct contact with the public (Surveyors and Inspectors))ServicesLowServicesLowModerate when in direct contact with the public (Surveyors and Inspectors))Serverage andLow		Corporate Communications	Low	No contact with the public	Frequent hand washing		Schedule media interviews over the phone as possible
Moderate when in direct contact with the public Contact with the public Contact with the public Roads and construction Low Contact with the public Contact with the public Services Low Contact with the public Contact with the public Contact with the public Fleet and Environmental Low Contact with the public Contact with the public Revices Low Contact with the public Contact with the public Engineering Low Contact with the public Contact with the public Services Low Contact with the public Contact with the public Severage and Low Contact with the public Low	Engineering &	Water Services	Low		Frequent hand washing		
Low Contact with the public Moderate when in direct contact with the public Contact with the public Low Low Recycling Depot, Truck Driver 1) Contact with the public Low Contact with the public Image: Second	Public Works		Moderate when in direct contact with the public	Contact with the public	Limit public face-to-face interactions and maintain social distance of 1-2 metres		
Moderate when in direct contact with the public Contact with the public Image: state of the public Low Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Low Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public Contact with the public Image: state of the public		Roads and	Low		Frequent hand washing		
Low Low Anderate when in direct contact with the public (Patroller, Recycling Depot, Truck Driver 1) Contact with the public Low Low Anderate when in direct contact with the public (Surveyors and Inspectors)) Contact with the public and Inspectors)		Construction Services	Moderate when in direct contact with the public	Contact with the public	Limit public face-to-face interactions and maintain social distance of 1-2 metres		
Moderate when in direct contact with the public (Patroller, Recycling Depot, Truck Driver 1)Contact with the public LowLowLowModerate when in direct contact with the public (Surveyors and Inspectors))Contact with the public contact with the public Low		Fleet and	Low		Frequent hand washing		
the public (Patroller, Recycling Depot, Truck Driver 1) Low Moderate when in direct contact with the public (Surveyors and Inspectors))		Environmental Services	Moderate when in direct contact with	Contact with the public	Limit public face-to-face interactions and		
Low Moderate when in Contact with the public direct contact with the public (Surveyors and Inspectors))			the public (Patroller, Recycling Depot, Truck Driver 1)		maintain social distance of 1-2 metres		
Moderate when in Contact with the public direct contact with the public (Surveyors and Inspectors)) Low		Engineering	Low		Frequent hand washing		
Low			Moderate when in direct contact with the public (Surveyors and Inspectors))	Contact with the public	Limit public face-to-face interactions and maintain social distance of 1-2 metres		
		Sewerage and	Low		Frequent hand washing		

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Department	Division / Section	Risk Exposure Rating(s)	Exposure Rating(s) Rationale	Recommended Mitigation Strategies	Recommended Personal Protective Equipment	Other Recommendations
	Drainage	Moderate when in direct contact with the public (Pipe Layer, Truck Driver 1 and Labourer 2)	Contact with the public	Limit public face-to-face interactions and maintain social distance of 1-2 metres		
	PW Admin	Low	No contact with the public	Frequent hand washing		
	Facility Operations, Maintenance, Planning and Construction	Low Moderate when in direct contact with the public (Maintenance Coordinator, Project Manager, Project Coordinator, Engineer in Training and Building Systems Maintenance Worker)	Contact with the public	Frequent hand washing Limit public face-to-face interactions and maintain social distance of 1-2 metres		
Law & Community	Richmond Fire Rescue	Low		Frequent hand washing		
oarery		Moderate when in direct contact with the public during fire investigations	Contact with the public	Frequent hand washing Limit public face-to-face interactions and maintain social distance of 1-2 metres	Per advice of the Medical Health Officer, in accordance to the characteristics of the pandemic and the recommendations from PHAC and BCCDC	Per advice of the Medical Health Officer, in accordance to the characteristics of the pandemic and the recommendations from PHAC and BCCDC

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Department	Division / Section	Risk Exposure Rating(s)	Exposure Rating(s) Rationale	Recommended Mitigation Strategies	Recommended Personal Protective Equipment	Other Recommendations
		High potential for contact with infected persons for Code 3 response to influenza situations	Contact with the public in small poorly ventilated workspaces	Frequent hand washing	Per advice of the Medical Health Officer, in accordance to the characteristics of the pandemic and the recommendations from PHAC and BCCDC	Per advice of the Medical Health Officer, in accordance to the characteristics of the pandemic and the recommendations from PHAC and BCCDC
	RCMP – Records, Community Police Stations / Crime Prevention Programs and Court Liaisons	Moderate when in direct contact with the public	Contact with the public	Frequent hand washing Limit public fact-to-face interactions as able and maintain social distance of 1-2 metres	Follow guidelines established by RCMP E Div Occupational Health	Consider Plexiglas barrier for Community Police Stations or other means to maintain 1-2 metres distance Consider alternate means of doing business, i.e., intercom for information, mail slot, etc. Follow guidelines established by RCMP E Div Occupational Health

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Department	Division / Section	Risk Exposure Rating(s)	Exposure Rating(s) Rationale	Recommended Mitigation Strategies	Recommended Personal Protective Equipment	Other Recommendations
	RCMP – Front Office	High when in direct contact with public	Contact with the public	Frequent hand washing Use of PPE Limit public face-to-face interactions and maintain social distance of 1-2 metres	Follow guidelines established by RCMP E Div Occupational Health	Consider Plexiglas barrier for front counter or other means to maintain 1-2 metres distance Consider alternate means of doing business, i.e., intercom for information, mail slot, etc. Follow guidelines established by RCMP E Div Occupational Health
	RCMP – Administration and Custodial Services	Low High when in direct contact with the public (Custodial Guards)	Contact with the public	Frequent hand washing Limit public face-to-face interactions and maintain social distance of 1-2 metres	Follow guidelines established by RCMP E Div Occupational Health	Follow guidelines established by RCMP E Div Occupational Health
	RCMP – Executive Assistants	Low	No contact with the public	Frequent hand washing		
	RCMP – Victim Witness Services	Moderate when in direct contact with the public (Volunteer Caseworkers, Program and Assistant Coordinators)	Contact with the public	Frequent hand washing Limit public fact-to-face interactions as able and maintain social distance of 1-2 metres	Follow guidelines established by RCMP E Div Occupational Health	Follow guidelines established by RCMP E Div Occupational Health

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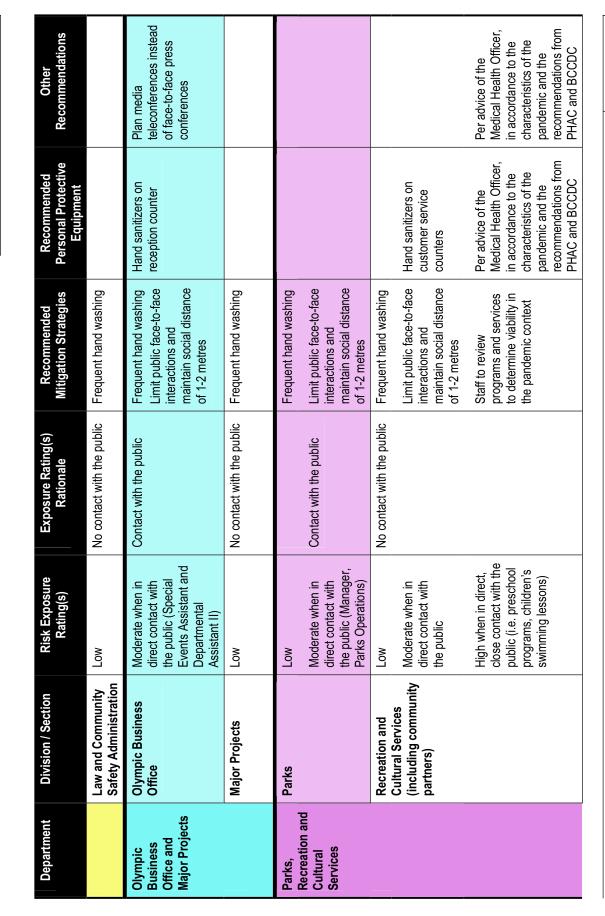
Richmond

Pandemic Plan

Department	Division / Section	Risk Exposure Rating(s)	Exposure Rating(s) Rationale	Recommended Mitigation Strategies	Recommended Personal Protective Equipment	Other Recommendations
		High	Contact with infected persons Contact with the public in small, poorly ventilated workspaces		Follow guidelines established by RCMP E Div Occupational Health	Follow guidelines established by RCMP E Div Occupational Health
	RCMP – Finance	Low	No contact with the public	Frequent hand washing		
	RCMP – Exhibits	Low	No contact with the public	Frequent hand washing		
	RCMP – Computer Services	Low	No contact with the public	Frequent hand washing		
	Emergency Programs	Low		Frequent hand washing		
		High when in direct contact with the public (ESS interviews with evacuees)	Contact with the public	Limit public face-to-face interactions and maintain social distance of 1-2 metres	Per advice of the Medical Health Officer, in accordance to the characteristics of the pandemic and the recommendations from PHAC and BCCDC	Per advice of the Medical Health Officer, in accordance to the characteristics of the pandemic and the recommendations from PHAC and BCCDC
	Law	Low	No contact with the public	Frequent hand washing		
	Community Bylaws	Low		Frequent hand washing		
		Moderate when in direct contact with the public (Bylaw Officers)	Contact with the public	Limit public face-to-face interactions and maintain social distance of 1-2 metres	Per advice of the Medical Health Officer, in accordance to the characteristics of the pandemic and the recommendations from PHAC and BCCDC	Per advice of the Medical Health Officer, in accordance to the characteristics of the pandemic and the recommendations from PHAC and BCCDC

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Richmond



Response to a Pandemic 2706611 / August 28, 2009

Richmond	

Department	Division / Section	Risk Exposure Rating(s)	Exposure Rating(s) Rationale	Recommended Mitigation Strategies	Recommended Personal Protective Equipment	Other Recommendations
Planning and	Policy Planning	Low		Frequent hand washing		
Development	Development Applications	Low	No contact with the public	Frequent hand washing		
	Building Approvals	Moderate when in direct contact with the public	Contact with the public	Frequent hand washing Limit public face-to-face interactions and maintain social distance of 1-2 metres		
	Transportation	Low	No contact with the public	Frequent hand washing		



6.6 Role of Human Resources

Human Resources will have a primary role in not only the essential services strategy but also many others including the issues listed in Table 5: HR Related Issues and Solutions. Their expertise in staffing, recruitment, benefits and compensation, collective agreements, and workplace health will be required for many of the pandemic initiatives and response strategies.

Although some normal human resource responsibilities may decrease during a pandemic, others may increase such as the need for:

- Expertise/consultation for any changes to compensation, hours of work, shifts etc. for novel pandemic staffing schedules;
- Occupational Health support to monitor/maintain adequate health and disease prevention supplies, including hand sanitizer, hand washing facilities, and personal protective equipment;
- Liaison with Unions to resolve unique operations/workplace issues in relation to the collective agreements;
- Development of pandemic policies, as required;
- Novel recruiting strategies and shortened hiring processes;
- Monitoring of absenteeism and leave provisions; and
- Assistance to the families of City employees in the event of the employee's death.

Additionally, education of supervisors and management staff will be required on the issues of confidentiality, privacy, ethics, human rights and collective agreements.



6.7 Table 5: HR Related Issues and Solutions

HR Issues	Applicable Response Solutions
Staff will become ill and be unable to work. Some will develop health complications that will mean longer absences	 Essential Services Planning Absentee Reporting Structure
 Staff may be unable to work to care for sick family members or for children who are now at home due to school or daycare closures Some staff may demand/request to work from home 	 During the World Health Organization Phase 5 (Ramp-Up): Directors/Managers to review positions for strategies to reduce staff exposure to infection
Sick/vacation leave use during pandemic period	 Monitor sick leave through absentee reporting structure and consider extending paid leave to minimize hardship Develop policy to limit granting of vacation during the pandemic unless it is used to supplement sick days or family related absences
Usual face-to-face interaction may cease and most meetings and discussions will take place on the phone/email/messaging	 Essential Services Planning Exposure Control Plan measures
Some employees may object to redeployment to other work areas and changes to shifts that are not consistent with their Collective Agreement and job activities	 Essential Services planning Collective Agreements will not limit or interfere with the City's need to provide essential services – Provincial legislation will intercede if necessary
Some staff may refuse to work	Develop a Refusal to Work Policy



6.8 Support to Vancouver Coastal Health Authority

Vancouver Coastal Health Authority will notify the City of Richmond of the need for alternate care site facilities and have established triggers for their implementation.

Mass Vaccination Clinics

The Vancouver Coastal Health Authority Pandemic Influenza Regional Response Plan states that mass vaccination will likely take place following the first pandemic wave (i.e., once a vaccine is made available and distributed to the provinces). Vancouver Coastal Health Authority will develop a mass vaccination plan for each community and identify and operate a facility for this purpose.

It must be noted, however, that once such a facility(s) has been requested for use by Vancouver Coastal Health Authority during a pandemic, such a request would progress through the appropriate owner /operator approval / negotiation process.

Alternately, the Medical Health Officer may declare in an order under the powers of the Public Health Act that a facility be used by Vancouver Coastal Health Authority as a mass vaccination, triage, and/or alternate care facility.

In either case, the facility would then be managed and operated by Vancouver Coastal Health Authority. When the facility is no longer required for the pandemic response, control of the facility would return to the owner. Should the facility be owned by the City, Facility Management would then ensure that the building has been cleaned and sanitized to return it to its normal day-to-day operations.

Vaccine may not be initially available for the entire population due to limited supply or delivery schedule. Public Health Agency of Canada will most likely develop a priority vaccination list.

Alternate Care Facilities

Alternate care facilities may be required to augment services provided by traditional medical care facilities to patients affected by pandemic influenza. According to Section 3 of the Richmond Health Services: *HSDA Pandemic Response Plan*, alternate care facilities will be considered secondary sites and will assist residential and home care institutions, social services and hospitals, in meeting the surge in demand for services. These same facilities may also be used for such services as mass vaccination, triage, and/or alternative care.

In a similar process to that outlined above for mass vaccination sites, Vancouver Coastal Health Authority will develop plans for each community for the identification and operation of alternate care sites to supplement current care facilities. This would be subject to a similar



approval / negotiation process or alternately to an emergency order by the Medical Health Officer to declare a facility be used for this purpose.

Vancouver Coastal Health Authority will notify the City of Richmond of the need for alternate care site facilities. It must be recognized, however, that in order to ready the sites for use, it will require appropriate lead time which needs to be clarified and considered by Vancouver Coastal Health Authority staff when it is apparent that the pandemic phases are escalating.

Since it is likely that a pandemic will not start in Canada, the first trigger for the consideration of establishment of alternate care sites may be reports of the severity and epidemiology of the pandemic from other countries. This is likely to be the first indicator of potential demand on traditional health care services when the pandemic reaches Canada.

Vancouver Coastal Health Authority monitors on a daily basis the capacity of its facilities and will keep local governments apprised of its capacity in order t o provide a much lead time as possible to prepare potential facilities for use as alternate care sites.

6.9 Support to Community Services

In all likelihood, health and other service providers may become overwhelmed during a pandemic. Municipalities may be required to facilitate community services support to the public during a pandemic. The City of Richmond will evaluate its resources during the pandemic within its essential services strategy to determine how support to community services may be achieved.



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7.0 Post Pandemic Response

7.1 Corporate Communications

Messages

- External
 - Vancouver Coastal Health Authority education campaign materials; and
 - Latest information on City operations/service/resource/recovery.
- Internal
 - Provide ongoing information to staff regarding recovery steps; and
 - Acknowledge staff and their efforts during the response period.

Information Approval

• If the EOC is activated the EOC Director will approve messages.

If the EOC is not activated Senior Manager, Corporate Communications will work with Manager, Emergency Management, and Senior Management Team.

7.2 Emergency Programs

- Hold debriefings to discuss response;
- Work with agencies to develop recommendations from lessons learned to incorporate into training, plans and exercises;
- Review and revise plans as necessary;
- Coordinate the demobilization of any alternate care site, triage, or mass vaccination sites used by Vancouver Coastal Health Authority upon approval from the Medical Health Officer;
- Work with agencies and departments to develop recommendations from lessons learned to incorporate into training, plans and exercises;
- Coordinate the review and update of department/divisional surveys to ensure the information in the plan remains current and accurate; and
- Continue to maintain situational awareness on research and developments to integrate and incorporate into planning for the pandemic.



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7.3 Community Support Services

- Assess ability to resume to normal provision of community support services;
- Thank all agencies and volunteers; and
- Work with agencies and departments to develop recommendations from lessons learned to incorporate into training, plans and exercises.



8.0 Distribution List

Copy No.

1	Chief Administrative Officer
2	Deputy Chief Administrative Officer
3	General Manager, Business and Financial Services
4	General Manager, Community Services
5	General Manager, Engineering and Public Works
6	General Manager, Law and Community Safety
7	General Manager, Parks and Recreation
8	General Manager, Planning and Development
9	General Manager, Project Development and Facility Services
10	Medical Health Officer
11	Richmond Hospital Emergency Management Coordinator
12	Superintendent of Schools, Richmond School Board
13	Manager, Emergency Programs
13	Coordinator, Emergency Programs
14	Coordinator, Emergency Social Services/Volunteer Management
15-16	City Hall EOC
17-18	Works Yard EOC



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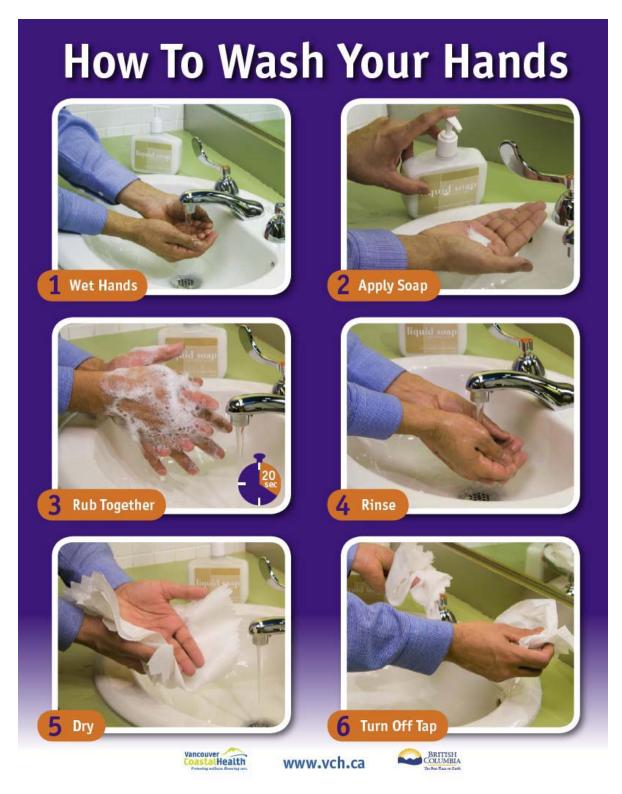


Appendix: Resources

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How to Use a Hand Sanitizer	AP3
Cover Your Cough	AP4
20 Ways to Prepare for a Pandemic	AP5
Look After Yourself	AP6

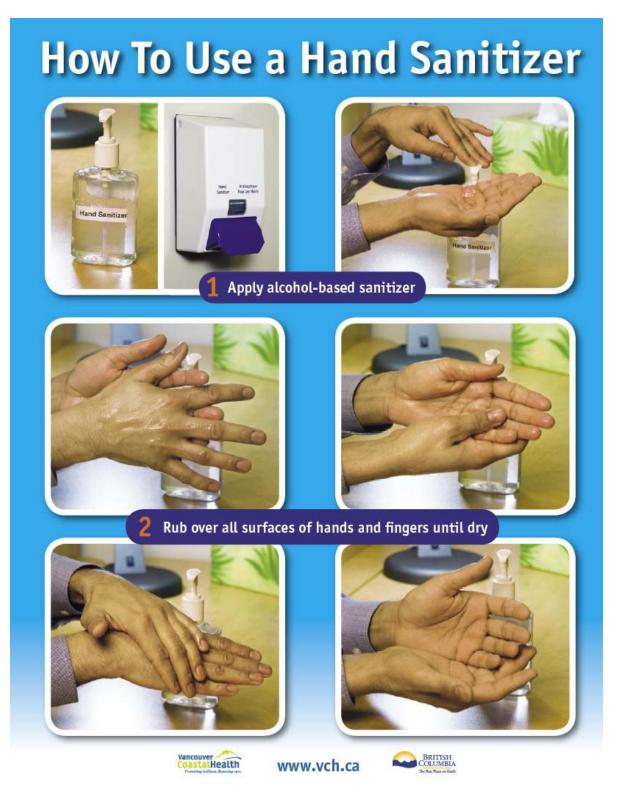


How to Wash Your Hands





How to Use a Hand Sanitizer





Cover Your Cough





20 Ways to Prepare for a Pandemic

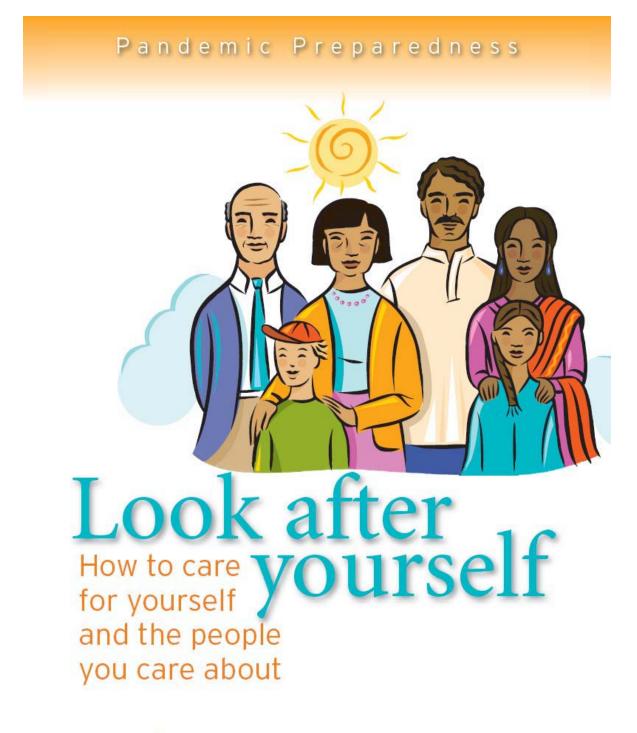


TOP 20 WAYS TO PREPARE FOR A PANDEMIC

- Have an emergency kit on hand with medical supplies and at a minimum a 72 hour (3 day) supply of food and water for all people and pets in your household
- Stay informed and up-to-date check the <u>Ministry of Health</u>, <u>Pandemic Influenza</u> and <u>B.C. Centre for Disease Control</u> websites and read articles, watch the news, and listen to the radio
- 3. Plan to get your annual influenza vaccination to help boost your immune system
- 4. Teach your children good hygiene to protect them from the influenza virus:
 - Wash your hands frequently before eating and after using the washroom keep soap at each kitchen or bathroom sink for hand washing
 - When you are sick, stay home it is the best way to stop the spread of infection
 - Cover your cough and sneeze with a tissue throw your tissue away immediately
- Practice a healthy lifestyle eat healthy foods and get regular exercise to boost your immune system and help protect yourself and others from influenza
- 6. Inform yourself about the basics of pandemic influenza forewarned is forearmed
- Develop your own family plan for a pandemic so you can address issues such as family illness and school or daycare closures
- Designate an out-of-town relative or friend to act as a common contact for your family members
- Make a list of phone numbers of hospitals, doctors, BC NurseLine, Health InfoLine and health units and place them near the phone or on your fridge (refer to the <u>Contacts</u> page) – let family members know where these numbers are located
- 10. Have a financial plan in case you or a family member is unable to work for a period of time due to illness or family illness
- 11. Have enough prescription medicines on hand for at least six months
- 12. Stock over-the-counter medications, such as acetaminophen, ibuprofen or Aspirin[®], antacid and cough/cold medication. Aspirin[®] should not be given to children 20 years or younger because of the risk of Reye's Syndrome.
- 13. If you are able, plan to work from home during a pandemic
- 14. If traveling, check travel advisories on the Public Health Agency of Canada website
- 15. If you have been traveling in areas where influenza activity is high, monitor your health (watch for symptoms of fever and cough). If you have these symptoms, call the BC NurseLine or your doctor
- 16. If you own a business, make sure you have a plan in place to address employee absenteeism and a possible decrease in sales and revenue
- Ask your local government, school district, daycare and employer about their preparations for a pandemic
- Talk with neighbours, seniors and others in your neighbourhood to see if they are preparing for a pandemic, and if they will require any help
- 19. If you know a health care worker, emergency responder or other frontline workers, talk with them now to find out how you can help them during a pandemic
- 20. Review and revise your plans regularly and rotate food and water supplies.



Look After Yourself









Pandemic preparedness

An influenza pandemic is a world wide outbreak of severe influenza (flu).

During an influenza pandemic, demand for health care services will increase at the same time as health care workers are ill with influenza themselves or are staying home to look after sick family members.

Most people who get influenza will not be sick enough to require medical care and can be looked after at home.

We've put together a series of fact sheets and other tools to help you prepare to look after yourself and the people you care about during an influenza pandemic.

Pandemic influenza – what you need to know
Staying healthy in a pandemic
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What to do if someone gets sick
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How to take a temperature
How to measure breathing
When to seek medical care
Who to call
When to seek medical care for an adult with influenza-like illness
When to seek medical care for an older child (6-16yrs) with influenza-like illness
When to seek medical care for an infant or young child (to 6 years) with influenza-like illness 21



Pandemic influenza: what you need to know

What is influenza?

Influenza (the flu) is a highly contagious viral disease. The virus causes an infection of the respiratory tract, including the nose, nasal passages, throat, lungs and bronchial tubes. There are three types of influenza: A, B and C. Only type A causes pandemics in humans.

What is pandemic influenza?

An influenza pandemic is a worldwide outbreak of severe influenza A. Pandemics are caused by new strains of influenza A or strains that may not have circulated among humans for a long time, so people have little or no immunity to them. Pandemic influenza can strike at any time of the year and can cause much more sickness and death than seasonal influenza.

When will the next pandemic happen?

We don't know when the next pandemic will happen. Our experience tells us that it's only a matter of time. In the twentieth century there were three pandemics — in 1918, 1957 and 1968. Pandemics can affect communities in "waves". After a first peak of illness, the rates of illness drop, then one or more waves occur over a period of months.

Will there be a vaccine against pandemic influenza?

Once the strain of influenza that causes a pandemic is identified, it may take several months to develop a vaccine. There may be no vaccine available during the first "wave" of a pandemic. When a vaccine does become available, it will be in short supply. Canadian influenza experts have identified high-risk groups who will receive the vaccine first.

Will there be medications to prevent or cure pandemic influenza?

National and provincial governments are stockpiling enough antiviral medications to treat everyone in Canada who may become ill with pandemic influenza.

How is influenza spread?

Influenza is spread from person to person through droplets produced by coughing or sneezing. These droplets can travel up to 2 metres (6 feet) and can be inhaled by others. These droplets also land on surfaces. If a person touches an object that has been contaminated by droplets and then touches their eyes, mouth or nose, without first washing their hands, they can catch the flu. The time from when a person is exposed to the virus to the time symptoms appear is 1 - 3 days. The virus can survive on hard surfaces such as doorknobs, handrails and toys for up to 48 hours. The virus survives on your hands for 5 minutes.





How long is the influenza virus infectious/contagious?

A person with the flu is contagious for 24 hours before they become sick and for up to 7 days after becoming sick. Children may be contagious for longer than a week.

How do I know if I have influenza?

You may have the flu if you have a sudden onset of fever, cough, headache, muscle pain, sore throat, a runny nose and body aches. Sometimes children with influenza will have nausea, vomiting or diarrhea. Older adults (over 65) and children under 5 may not have a fever when sick with influenza. Although colds and other viruses may cause similar symptoms, influenza weakens a person much more than other viruses. Most healthy people will feel better in about 5 - 7 days. Complications of influenza, such as pneumonia, can be more severe for the elderly, for infants and for people with chronic health problems.

Is it a cold or influenza?

Symptom	FLU (Influenza)	COLD (Rhino Virus)
Fever	Usual, sudden onset 38ºC-40ºC and lasts 3-4 days	Rare
Headache	Usual and can be severe	Rare
Aches and pains	Usual and can be severe	Rare
Fatigue and weakness	Usual and can last 2-3 weeks or more	Sometimes, but mild
Extreme fatigue	Usual, early onset can be severe	Rare
Nausea, vomiting	In children under 5 years of age	Rare
Runny, stuffy nose	Rare	Usual
Sneezing	Rare	Usual
Sore throat	Rare	Usual
Chest discomfort	Usual and can be severe	Sometimes, but mild to moderate
Complications	Respiratory failure; can worsen a current chronic condition; can be life-threatening	Congestion or earache
Prevention	Flu shot; pneumococcal vaccine for those at risk of complications; frequent hand washing, cover your cough and sneezes	Frequent hand washing, cover your cough and sneezes



	Stay healthy during an influenza pandemic
	 Personal health & hygiene You can reduce your chances of catching the flu and improve your chances of a speedy recovery by looking after yourself. Wash your hands often with soap and warm water or use a hand sanitizer. Regular handwashing has been shown to significantly reduce the incidence of respiratory disease. Cover your nose and mouth with a tissue when coughing or sneezing or cough or sneeze into your sleeve. Cover your Cough poster Eat nutritious foods, including plenty of fruits and
	vegetables.
	Get plenty of sleep.
	Exercise in moderation.
	Get your annual flu shot. Don't smoke and don't allow others to smoke in the house or car.
\mathcal{Y}	Get the pandemic influenza vaccine, when it is available.
A	Stay home if you are sick or feel unwell; rest and drink plenty of fluids.
	Avoid crowds
	The more time you spend in contact with others during a pandemic, the more likely you are to be in contact with someone who is carrying the influenza virus. Take steps to limit your contact with others during a pandemic.
	Limit visitors to your home.
	Shop at smaller stores with shorter line-ups.
	Shop at off-peak hours at stores that stay open late or are open 24 hours.
	If possible, phone your grocery order in for quick pick-up or delivery.
X	Pay your bills at an ATM, on-line or over the phone.
	Cancel or postpone family outings or gatherings.
	Work from home or arrange to work flexible hours, if possible.
5 P.	andemic Preparedness



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Take steps to reduce your chances of catching the flu during a pandemic.

- Wash your hands often with soap and warm water or use a hand sanitizer.
- Work from home or arrange to work flexible hours, if possible.
- Clean objects, such as phones and hard surfaces that are handled by many people, with a disinfectant.
- Keep your office door closed.
- Use stairs instead of crowded elevators.
- If you must meet with people, stay 2 metres (6 feet) apart.
- Avoid shaking hands, kissing or hugging people.

Cancel unnecessary meetings; use teleconferencing or video conferencing, telephone, e-mails or fax.

Travel on public transit at off peak hours, drive your car, walk or ride your bike to and from work or school.

Take your lunch and eat it at your desk or away from others; avoid crowded cafeterias and restaurants.



	Be prepared
	If you become ill with the flu, you should stay home, rest in bed and drink plenty of fluids. You should be prepared to cope at home for up to a week.
	Have a fever thermometer in your emergency kit.
	Stock up on:
	Non-perishable food items, such as canned or frozen soups, juices, fruits and vegetables, canned fish, crackers, peanut butter.
	Household cleaning supplies, such as bleach or disinfectant, dishwashing soap and paper towels.
	Personal hygiene products such as soap, hand sanitizer, shampoo and toilet paper.
	Basic over-the-counter medications such as acetaminophen (Tylenol TM or Tempra TM) for fever.
	Prescription medications (two to three month's supply, if possible).
	Look after others
	During a pandemic you can help others to stay healthy.
	Check up on family, friends and neighbours, especially those who live alone.
	Offer to get groceries and run errands for those who are at higher risk of getting influenza or serious complications from influenza, such as seniors or people with chronic medical conditions.
	Keep emergency phone numbers and self-care instructions in a place where everyone in the household can find them.
	Schools and community centres may be closed; keep books and games at home for children to play with.
	Arrange for child care that reduces your children's exposure to crowds.
	Make arrangements for school work to be done from home.
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7 9	andemic Preparedness





Housekeeping

Influenza viruses can live for up to 2 days on hard surfaces. Washing hard surfaces (taps, counters, doorknobs, telephones, railings) with a disinfectant, such as a 10% bleach solution (one part bleach to nine parts water) will kill the influenza virus. Surfaces that are touched frequently with the hands should be cleaned thoroughly and often.

If a member of your household is ill with influenza:

- Keep their personal items separate from those of the rest of the household.
- Don't share towels.
- Don't share eating utensils or drinks with anyone (remember, you may not know who is infectious).
- Keep an adequate supply of products for handwashing and cleaning.

There's no need for special handling of laundry or linen from a person who may have influenza; launder as usual.

There's no need for special handling of garbage generated by a person with influenza.

If someone dies

During a pandemic some people may die at home. The remains of those who die at home should be wrapped in a sheet and kept in a cool, dry place until funeral services are available to collect the body. Bodies of people who have died from influenza are not contagious to others.

What about pets?

Most family pets are not at risk for getting or passing on influenza. Pigs, birds and horses are at risk for getting influenza. If you have these animals as pets or live on a farm, take special care to wash your hands after contact with them.





H	land washing
	Hand washing is the best way to stop the spread of influenza and other viruses.
	When you wash your hands, you wash away viruses and bacteria that you may have picked up from people, contaminated surfaces or animals and animal waste.
	Wash your hands: Before, during and after you prepare food.
	Before you eat.
	After using the toilet.
	After changing an infant or adult diaper.
	After sneezing or coughing or blowing your nose.
\mathcal{X}	After blowing a child's nose.
	When your hands are dirty.
	More frequently when someone in your household is sick.
\bigcirc	After touching commonly used items, such as door knobs, railings, bank machines.
	Use soap and warm water to wash your hands. Do not use antibacterial soap; it encourages antibiotic resistance.
\sum	Carry hand sanitizer with you to disinfect your hands, if soap and water are not available. You can find hand sanitizer in most supermarkets and drug stores.
2	Here are posters showing you how to wash your hands and use hand sanitizer properly. Post them in kitchens and bathrooms at home, work or school.
	How To Wash Your Hands How To Use a Hand Sanitizer
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9 Pande	mic Preparedness



What to do if someone gets sick
Providing care at home to someone with influenza will be common during an influenza pandemic. Ask for help from family members or friends if you live alone, are a single parent with small children or are having a hard time looking after yourself or others.
Stay home when you are feeling ill
Do not go to work or school; you could spread influenza to others.
Avoid other people for seven days after your symptoms start.
Stay in your room as much as possible. Try to keep 2 metres – 6 feet – of distance between you and others in the household who are not sick.
If more than one person in the home is ill, they can share a room.
Get plenty of rest
You will probably feel very tired and weak. Resting allows your body to recover from influenza.
Drink plenty of fluids
Water, juices, clear broths and soups will replace the fluids lost, especially if you have a fever.
If your urine is dark, drink more fluids.
Try to drink a glass of water for every hour that you are awake.
Warm fluids may also help loosen up mucus in your throat and lungs.
Treat fever or muscle aches at home
Acetaminophen (Tylenol TM , Tempra TM) may provide some comfort. Always follow the directions on the package about how much and how often to take acetaminophen.
Never give products containing ASA (acetyIsalicyIic acid, such as Aspirin [™]) to any child under the age of 18 years. Use of ASA products by children can lead to Reye's syndrome, a serious condition affecting the nervous system and the liver.
If you have any concerns,
Call HealthLink BC 811 711 (Deaf and hearing-impaired)



Over-the-counter cough and influenza	
remedies	

If you are buying an over-the-counter medication, check with the pharmacist to see which one is best for you:

- Tell the pharmacist if you are taking other medications or if you have any chronic medical conditions.
- Buy a remedy that treats only one symptom at a time (that way you are not taking substances you may not need or that may cause an unwanted reaction).
- Read the label carefully to see if the ingredients treat the symptom you want to treat.
- Read the label and note any side effects or interactions with other medications.
- Take only the recommended dose on the label.

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Start with a standard dose first; it may work fine. Extra strength remedies contain a higher dose of medication and may cause more side effects.

If you have any questions about medications, talk to your pharmacist. HealthLink BC has a pharmacist available from 5 p.m. to 9 a.m. daily.

Call HealthLink BC

711 (Deaf and hearing-impaired)

Other products

During a pandemic, you may hear stories of cures and medications promising to prevent or cure influenza. It's important to remember that only antiviral medications and vaccines, regulated by Health Canada, have been tested and found to be safe for humans. Beware of false promises. If you have any doubts or questions about a product, speak with a pharmacist or your doctor.



	Fours S four (fabrila) saizuras
\bigwedge	Fevers & fever (febrile) seizures
	In most cases, a fever is not serious and is a good sign that your body is working to fight off an illness.
	What to do for fever
	Take off heavy clothing and blankets.
	Dress in lightweight clothing and keep room temperature at 20°C.
	Give lukewarm sponge or tub baths (never use alcohol rubs to bring down a fever).
	Offer cool fluids frequently when the person is awake.
	Give acetaminophen (Tylenol TM or Tempra TM) every 4-6 hours for comfort and to reduce fever. Never give ASA (Aspirin TM) to children.
	Allow the person to rest and stay home if possible for 7 days (to avoid spreading influenza to other people).
	How to take a temperature
	What are fever seizures?
\mathbb{P}	A fever seizure is a convulsion in a child caused by a rapid rise of body temperature to over 39°C (102.2 °F). Most seizures occur within the first day of the child becoming sick and not always when the fever is the highest. Sometimes the seizure is the first sign of a fever in an infant or child.
\mathcal{A}	Signs that your child may be having a fever seizure
	The child may:
	experience sudden stiffness of the muscles of the face, arms or legs on both sides of the body.
	Cry or moan.
A	fall if standing and may pass urine.
	vomit or bite their tongue.
	stop breathing and may begin to turn blue.
	begin to have jerky movements.
\mathcal{H}	not respond to voice or touch.
	A simple fever seizure will stop by itself within a few seconds to 10 minutes. It is followed by a brief period where the child is sleepy or confused. Medication is not needed.
	A complex fever seizure lasts longer than 15 minutes, occurs in one part of the body and happens again during the same illness.
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	What to do if your child has a fever seizure
	Stay calm.
	Leave your child on the floor (you may want to slip a blanket under the child if the floor is hard).
	Loosen tight clothing, especially around the neck.
\mathbf{O}	Move the child only if he or she is in a dangerous location.
	Turn the child on her or his side or stomach to protect the head and to prevent the child from choking if he or she vomits.
	Don't hold your child down.
	Don't force anything into the mouth as this increases the risk of injury.
	Observe closely and time the fever seizure, so you can tell the doctor what happened.
	Seek medical attention
	A doctor should see children as soon as possible after their first fever seizure.
) /	If the seizure ends quickly, take your child to the family doctor or emergency department.
())	If the child is stable, you can also call HealthLink BC
$\mathcal{P}_{\mathcal{A}}$	Call HealthLink BC 811 711 (Deaf and hearing-impaired)
A)	If the seizure lasts longer than 10 minutes, call 911 to have an ambulance take your child to the hospital.
$\langle \rangle$	A doctor should see the child, if there are repeated seizures during the same illness or if this looks like a
$\sum p$	new type of seizure for your child.
A	Preventing further fever seizures
	If your child has a history of fever seizures and has a fever:
\bigcirc	Give your child acetaminophen at the first sign of fever (you may want to have acetaminophen suppositories on hand).
$\mathcal{T}_{\mathcal{O}}$	Sponge or bathe your child in lukewarm water. You may want to apply cool washcloths to the forehead and neck.
\mathcal{H}	Offer your child cool drinks.
\mathcal{D}	
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How to take a temperature

here are 3 ways to take a temperature: 1 In the mouth 2 Under the armpit 3 In the ear

he right method for children depends on the child's age. It is important to get the most accurate mperature reading possible. For older children and teenagers, use the adult method.

he following chart will help you decide which method to use.

Age	Best Method	Second Best Method	Third Best Method
Birth to 2 years of age	Armpit	-	-
2 to 5 years of age	Ear	Armpit	-
5 years - Adult	Mouth	Ear	Armpit

temperature by mouth

Place the tip of thermometer under tongue and close mouth.

Do not bite down on the thermometer.

Do not drink any hot or cold liquids (or smoke) for half an hour prior to taking a temperature.

temperature in the armpit

Place the tip of the thermometer against the skin and hold the arm snugly against chest.



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Taking a temperature in the ear

- Use a clean probe tip each time and follow the manufacturer's instructions very carefully.
- Gently tug on the ear, pulling it back and up. This will straighten the ear canal and make a clear path on the inside of the ear to the eardrum.
- Gently insert the thermometer until the ear canal is fully sealed off.
- Squeeze and hold the button down for one second.
- Remove the thermometer and read the temperature.

Thermometers

There are several types of thermometer. Digital thermometers are made of unbreakable plastic and measure temperatures quickly. They display the temperature so it is easy to read.

If you have any questions when you buy a thermometer, ask the pharmacist, and always follow the manufacturer's instructions.

If you don't have a thermometer, you can tell if someone has a fever by touching his or her skin. If the person's skin is hot and dry, if they have the "chills", if their mouth and lips are dry or if their cheeks are flushed, they may have a fever.

Fever strips will indicate a possible fever but are not an accurate way to measure a temperature.



How to measure breathing

For **adults and older children** watch the chest rise and fall. Use a watch or clock and count the number of times the chest rises (or expands) in one minute (60 seconds).

Children and infants use their stomachs to breathe. You should uncover the child so you can see the stomach. Count the number of times the stomach or chest rises in 30 seconds using a watch or clock. If you count for 30 seconds, you need to multiply by two in order to get the number of breaths per minute.

Compare the number you counted to the chart below. If the child's breathing rate is the same or over the number in the chart, it is a sign that the child is having trouble breathing and you should seek medical attention. If the child has other symptoms or behaviours that you are concerned about, seek medical advice.

Definition of fast breathing:

Age	Number of breaths per minute
Less than 2 months of age	Over 60 breaths per minute
2 to 12 months of age	Over 50 breaths per minute
Over 12 months to 5 years of age	Over 40 breaths per minute
Over 5 years of age	Over 30 breaths per minute

In children under 5 years of age, signs of trouble breathing include:

- grunting with breathing.
- whistling, squeaking or wheezing noise with breathing.
- flaring nostrils with each breath.
- chest rising opposite to the stomach rising.

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When to seek medical care

Older children and teens have the same influenza symptoms as adults. Very young children and infants probably have similar symptoms, but do not know how to tell people they have sore muscles or a headache. These children may be irritable and eat poorly.

The following decision-making tools can help you decide when to seek medical care.

When to seek medical care for an infant or young child When to seek medical care for older children or adolescents When to seek medical care for an adult

Remember, if you have any questions or concerns, you can call your doctor or the HealthLink BC any time.

Call HealthLink BC 811

711 (Deaf and hearing-impaired)

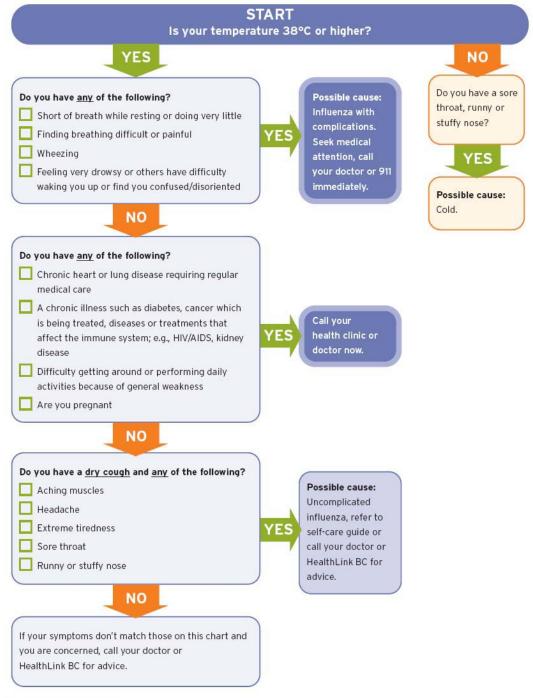


	Who to call
	Print this page and put in on your refrigerator or near your telephone.
	In case of emergency, call 911
	By telephone
	Vancouver Coastal Health Influenza Line: 604-875-4252 press 3
	HealthLink BC: 811
	711 (Deaf and hearing-impaired)
	BC Ministry of Health Information Desk: 1-800-465-4911
	On the web
	Vancouver Coastal Health: www.vch.ca/pandemic
	BC HealthGuide: www.bchealthguide.org/
	Important phone numbers
	Doctor
	Next of kin
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Pandemic Influenza Decision-Making Tool

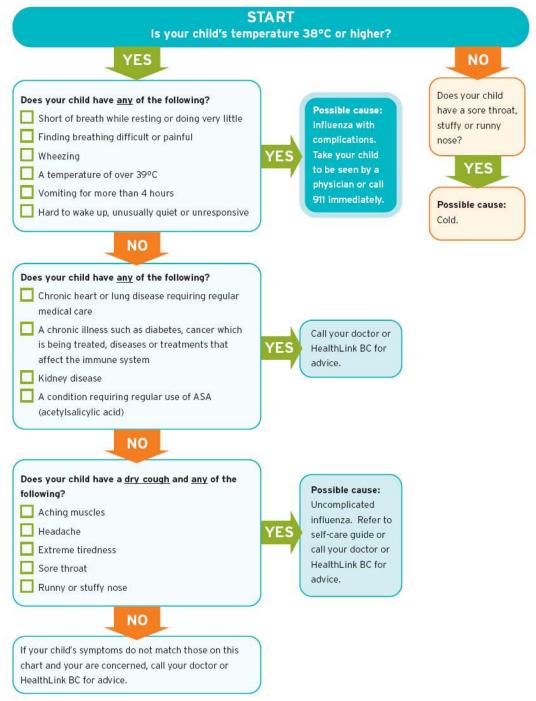
When to seek medical care for an adult with influenza-like illness





Pandemic Influenza Decision-Making Tool

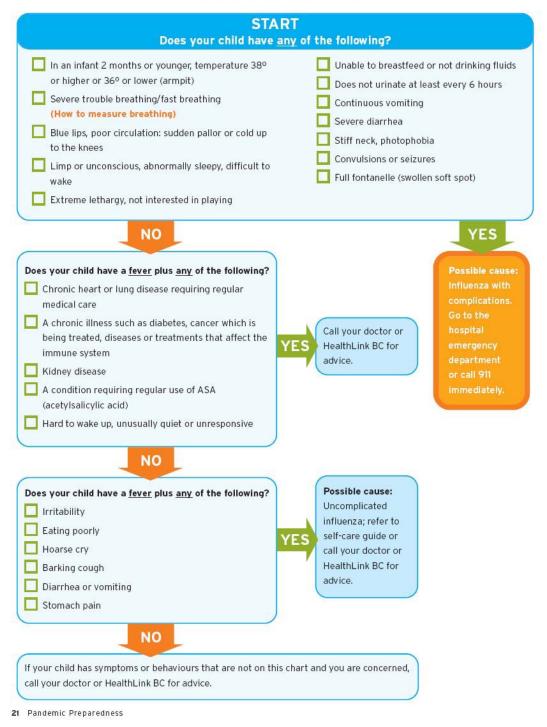
When to seek medical care for an older child (6-16 yrs) with influenza-like illness





Pandemic Influenza Decision-Making Tool

When to seek medical care for an infant or young child (to 6 years) with influenza-like illness





Pandemic Preparedness

Look after yourself

How to care for yourself and the people you care about





2009.05 Rev.



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