RENFREW COUNTY & DISTRICT PANDEMIC INFLUENZA PLAN

A Planning Guide for Housing, Residential and Social Service Providers

September 2006

"The only thing harder than planning for an emergency is explaining why you didn't."

Adapted with permission from Toronto Public Health – Toronto Pandemic Influenza Plan, June 20, 2006

Renfrew County & District Health Unit would like to extend the following acknowledgements

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Disclaimer: This Planning Guide is a tool to support planning for pandemic influenza in the residential and housing service sector. Renfrew County & District Health Unit is not responsible for any errors, omissions, misinterpretation or misuse of this guide.

1.0 Introduction

1.1 Purpose of this guide

This general planning guide has three purposes. First, it provides background information on pandemic influenza. Second, it outlines Renfrew County & District's (RCDHUs) role during an influenza pandemic. Third, it identifies issues and critical elements of emergency preparedness that homeless and housing service providers should consider in planning for an influenza pandemic. This guide will help service providers develop more detailed service continuity plans for their organization. Although RCDHU will identify broad public health issues, every organization must plan for the specific disruptions it will face during a pandemic. Sector specific issues are outlined in section 6 while sections 1 to 5 of the guide provide general information.

The overall goal of pandemic influenza planning is to reduce illness (morbidity), death (mortality), and social disruption resulting from an influenza pandemic. Although this guide identifies specific issues associated with pandemic influenza, much of the information applies to other emergencies as well.

The homeless and housing service providers planning guide is an evolving document and as planning continues at the federal, provincial and local levels, updated information will be added. For the most up-to-date version of the planning guide, please refer to the Renfrew County & District website at: www.rchu.com

1.2 What to expect

- Pandemic influenza will be caused by a new sub-type of the influenza A virus (see sections 2.3 and 2.4).
- Since pandemic influenza will simultaneously affect the County, the Province of Ontario, and other jurisdictions, for planning purposes we are assuming that there will be no aid from other sources.
- When the World Health Organization (WHO) declares "Pandemic Phase 6" (which means increased and sustained transmission in the general population – see section 2.7), the pandemic influenza strain will probably appear in Ontario a short time afterwards.
- There will be two or three waves of pandemic influenza activity over a one to two year period.
- During the course of an influenza pandemic it is estimated that 15 to 35% of Renfrew County residents will become ill enough that they will be unable to continue with their usual activities for a period of time.
- The severity of illness and the death rate may be just moderately worse than in the usual influenza seen every winter or it may be much more severe. Specifics such as who will be most affected and how they will be affected will not be known until the pandemic virus actually emerges.
- Children and otherwise healthy adults may be at more risk of becoming ill than elderly adults. Elderly people may have some residual immunity if the pandemic is caused by a virus related to one that has previously caused widespread influenza, and if they were infected by that virus earlier in their lives.
- Physical illness is not the only effect of an influenza pandemic. The psychological impact on the public will likely be significant.
- Important community services may need to be curtailed, consolidated, or suspended because of widespread absenteeism in the workplace.
- Community activities may need to be curtailed or cancelled to prevent the spread of infection.
- Supply chains of resources for every sector will likely be disrupted.
- Renfrew County & District Health Unit will implement the Incident Management System (see section 3.1) in Pandemic Alert Phase 5. The Renfrew County & District Pandemic Influenza Plan will continue to be updated as local, provincial, and federal planning proceeds.

2.0 Pandemic Influenza Information

2.1 What is influenza?

Influenza, commonly known as "the flu," is a highly contagious and common respiratory illness caused by a virus. There are three known types of influenza virus – A, B, and C. Types A and B cause seasonal influenza. Only type A is associated with pandemics.

Influenza is usually transmitted from person to person by droplet spread or direct contact.

- Droplet spread refers to spray with relatively large, short range droplets produced by sneezing, coughing, talking or singing. These droplets may spray up to one meter (about three feet) and can land directly in the eye or be breathed in through the nose or mouth.
- Direct contact occurs when there is immediate transfer of the virus through skin to skin contact or kissing. For example, an infected person may cough into his or her hands and then shake hands with another person who may then touch his or her eyes, nose or mouth.

Please see Chapter 2 of the Renfrew County & District Pandemic Influenza Plan for more information on how influenza is transmitted.

The incubation period (the time between being exposed to the virus and the point at which one starts to experience symptoms) is one to three days. Most people recover in seven to 10 days.

Most adults are infectious to others between 24 hours before and up to five days after they develop symptoms. Children and some adults may be infectious for seven or more days after they develop symptoms.

Humans are usually infected by other humans. However, in some rare cases, humans may be infected by close contact with infected birds or mammals such as pigs.

About 30 to 50% of those who are infected by the influenza virus experience no symptoms at all. The remainder will experience symptoms ranging from mild to severe.

- The first symptoms are usually fever, headache, chills, muscle aches, physical exhaustion, and a dry cough.
- Later, the infected person may have a sore throat, a stuffy or runny nose, and a worsening cough.
- Children may feel sick to their stomach, and may vomit or have diarrhea.
- Elderly people and those whose immune system is weak may not develop a fever.

These symptoms may be caused by other viruses or bacteria, not just the influenza virus. Diagnosing influenza depends on laboratory testing and epidemiological characteristics.

In North America, the influenza season is usually from October to April. For most people, seasonal flu is not life threatening. The most seriously affected are the elderly, people with chronic medical conditions, and children less than two years old. For these people, the flu may lead to complications such as pneumonia, which can be fatal.

2.2 Annual influenza immunization

The best way to protect yourself from seasonal influenza is to get vaccinated every fall. The influenza vaccine (or "flu shot") is made from particles of influenza viruses that have been killed and contains three different types of influenza viruses (two types of influenza A and one type of influenza B). Every year, doctors and scientists around the world identify the strains of influenza virus that are circulating, and the vaccine is prepared to protect against the types that are most likely to occur that year. The body needs about two weeks after being vaccinated to build up protection against the virus, and this protection lasts about four to six months. The influenza virus changes each year, so a different vaccine has to be created and used each year.

Everyone should consider being vaccinated against seasonal influenza each year. This immunization may also reduce the chances of a new influenza virus emerging through genetic mixing.

The influenza vaccine is offered free of charge to everyone 6 months and older who live, work, or attend school in Ontario, through family physicians, workplaces, and public health clinics.

2.3 What is an influenza pandemic?

An influenza pandemic occurs when there is an abrupt and major change in the structure of the influenza A virus (known as "antigenic shift"). This change may occur in two ways:

1. When two different influenza viruses infect the same cell, their genetic material may mix (reassortment), resulting in a completely new strain of virus. For example, this may occur when a bird virus and a human virus both infect a pig. Such mixing most often occurs where pigs, birds, and humans live in close proximity to one another.
2. A virus may undergo random mutation. This type of change may occur during the sequential infection of humans and other mammals and lead to a virus more efficiently transmitted between humans.

Since people have little or no immunity to a completely new strain of influenza A virus, it can spread very quickly. When outbreaks occur in one or more countries or worldwide, the event is called a pandemic. The exact nature of the pandemic virus (such as how severely it affects people, how long the incubation period is, and how easily the virus is transmitted from one person to another) cannot be known until the new strain emerges.

2.4 How often do influenza pandemics occur?

From historical records, we know that a pandemic strain of influenza tends to emerge three or four times each century.

In the last century, influenza pandemics occurred in 1918 (Spanish flu), 1957 (Asian flu) and 1968 (Hong Kong flu). The pandemic of 1918-1919 caused between 20 and 40 million deaths worldwide, while the pandemics of 1957 and 1968 caused much less mortality and morbidity. It is generally believed that another influenza pandemic will occur but there is no way of predicting when that might be, nor the level of illness that might result.

2.5 What is the difference between seasonal influenza and pandemic influenza?

The following chart summarizes the main differences between seasonal influenza and pandemic influenza.

Seasonal influenza	Pandemic influenza
Occurs every year (October to April).	Occurred three times in the 20th century.
Occurs during the winter.	Occurs at any time of the year.
For most people, it is an unpleasant but not life-threatening infection.	It is typically a more serious infection for everyone.
Most people recover within one or two weeks without requiring medical treatment.	Some people will not recover, even with medical treatment. Because the illness is more severe, there is greater risk that an infected person may die.
The very young, the very old and people with chronic illness are most at risk of serious illness.	People of every age may be at risk of serious illness.
Vaccine is available in advance.	Vaccine will not be available in advance.
Annual vaccination is recommended, especially for those at risk of serious illness.	The whole population will be offered vaccination when the specific vaccine required becomes available.
Antiviral drugs are available to treat those at special risk.	Antiviral drugs are likely to be in limited supply and will be used according to how the disease develops.

Adapted from:
Department of Health (England) "Pandemic Flu: Frequently Asked Questions" October 19 2005 at www.dh.gov.uk and Ministry of Health and Long-term Care "Differences between seasonal or "annual" influenza and the influenza pandemic" Fact Sheet at www.health.gov.on.ca/english/providers/program/emu/pan_flu/ohpip_fact_sheets.html

2.6 What is avian influenza?

Avian influenza or "bird flu" is a contagious disease of animals, caused by influenza viruses that normally infect only birds and sometimes pigs. Avian influenza viruses have on rare occasions crossed the species barrier to infect humans.

Infection with avian influenza viruses cause two main forms of disease in domestic poultry. One is a mild form that causes hens to have ruffled feathers and produce fewer eggs, and the other is very severe, spreading rapidly and killing most infected poultry.

The H5N1 sub-type that is currently circulating in Asia and parts of Europe is the severe form. This sub-type has infected some humans who have been in close contact with infected birds and over half of these infected individuals have died. There is a possibility that the virus may change to a highly infectious form that spreads very easily from person to person. Such a change could mark the start of a pandemic.

However, current strains of avian influenza will not necessarily become a pandemic strain. The next pandemic could arise from a different influenza virus altogether.

For information on human cases of avian influenza, check the World Health Organization website at: www.who.int/csr/disease/avian_influenza/en/index.html

For more information on avian influenza, see the Public Health Agency of Canada website at: www.phac-aspc.gc.ca/influenza/avian_e.html

2.7 World Health Organization alert phases

Pandemic planning begins with the World Health Organization (WHO) classification system, developed in 1999 and revised in April 2005. The WHO phases are intended to guide planning in individual countries and regions and are incorporated into the Canadian, Ontario, and Renfrew County & District plans. The WHO identifies which phase is occurring internationally and will declare when a pandemic has begun. The Public Health Agency of Canada (PHAC) and the Ministry of Health and Long-Term Care (MOHLTC) will declare when a pandemic period has begun in Canada and Ontario, respectively. The following table outlines the WHO Pandemic Phase Model:

World Health Organization Pandemic Phases

Interpandemic Period*	Phase 1: No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.
	Phase 2: No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus sub-type poses a substantial risk of human disease.
Pandemic Alert Period**	Phase 3: Human infection(s) with a new subtype, but no human to human spread, or at most rare instances of spread to a close contact.
	Phase 4: Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.
	Phase 5: Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).
Pandemic Period	Phase 6: increased and sustained transmission in the general population.

*The distinction between phase 1 and phase 2 is based on the risk of infection or disease from circulating strains in animals. The distinction is based on various factors and their relative importance according to current scientific knowledge. Factors may include pathogenicity in animals and humans, occurrence in domesticated animals and livestock or only in wildlife, whether the virus is enzootic or epizootic, geographically localized or widespread, and/or other scientific parameters.

** The distinction between phase 3, phase 4 and phase 5 is based on an assessment of the risk of a pandemic. Various factors and their relative importance according to current scientific knowledge may be considered. Factors may include rate of transmission, geographical location and spread, severity of illness, presence of genes from human strains (if derived from an animal strain), and/or other scientific parameters.

Postpandemic Period – return to Interpandemic Period.

As of Sept, 2006, the world was in Pandemic Alert Phase 3. We have been in this phase since December 2003.

2.8 Potential health impact of pandemic influenza on Renfrew County & District

Unlike Severe Acute Respiratory Syndrome (SARS), which spread primarily among people within a hospital or within a household, an influenza pandemic will likely spread quickly throughout the general community.

According to the Canadian Pandemic Influenza Plan, during the course of an influenza pandemic, between 15 to 35% of the population might become ill such that they will not be able to continue with their usual activities (e.g., attendance at work or school) for a period of time. This compares to an average of 5 to 20% of the public who are affected by "normal" seasonal influenza outbreaks. Previous influenza pandemics have occurred in two or three waves. Each wave is likely to last six to eight weeks.

Planning for a pandemic is based on this estimate of 15 to 35% of the population being affected. However, when an actual pandemic begins, the specific impact on Renfrew County & District may be different from these estimates.

Estimated Direct Health Impact of Pandemic Influenza on Renfrew County & District

Description	Based on 15% attack rate	Based on 35% attack rate
Clinically ill	15,000 individuals	35,000 individuals
Require outpatient care	6,300 individuals	26,949 individuals
Require hospitalization	70 individuals	558 individuals
Deaths	28 individuals	172 individuals

Based on FLUAID 2.0 – A CDC software designed to provide a range of estimates of the impact of pandemic influenza available at www.cdc.gov/flu/tools/fluaid/

3.0 Role of Renfrew County & District Health Unit During a Pandemic

Renfrew County & District Health Unit takes the lead in developing a local pandemic influenza plan for the County of Renfrew & District. Although local planning is critical, many decisions made at the federal or provincial levels must be followed locally, such as establishing who has priority in receiving vaccination once a pandemic vaccine becomes available.

The specific RCDHU roles during a pandemic influenza emergency response will include:

- Disease surveillance and reporting
- Case investigation and management
- Identification and follow-up of close contacts
- Health risk assessment and communications
- Liaison with hospitals and other agencies
- Community-based disease control strategies
- Vaccine and antiviral medication administration and distribution

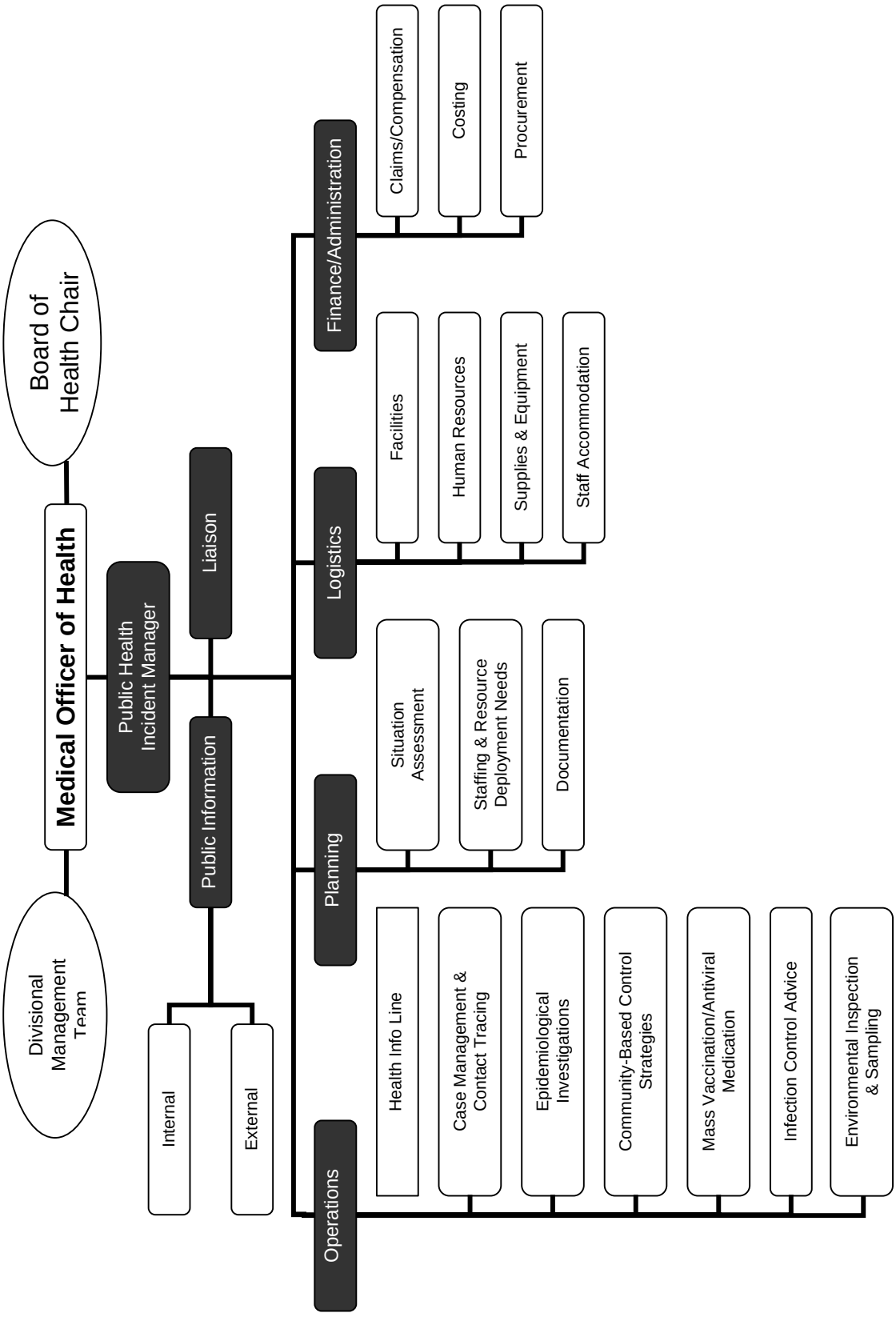
3.1 Incident Management System

The Incident Management System (IMS) is an emergency response model. It provides a way of coordinating the efforts of agencies and resources by using a common organizational structure that can expand or contract based on the scope of response.

The IMS is used by agencies across the County to respond to emergencies. RCDHU has adopted the IMS and will organize itself accordingly to communicate, cooperate and respond collectively with other county wide emergency response partners. Figure 1 illustrates RCDHU's IMS organization and functions in a pandemic which will allow RCDHU to coordinate our own efforts, integrate our activities with other responding agencies and manage resources during an emergency.

For more detailed information on IMS, refer to the Renfrew County & District Pandemic Influenza Plan at www.rcdhu.com

Figure 1: Renfrew County Public Health Pandemic Influenza Incident Management System



4.0 Challenges During a Pandemic

Housing, residential and social service providers will likely face a number of significant challenges as a result of the widespread illness and social disruption that may occur during an influenza pandemic.

4.1 Employee absenteeism

Health Canada estimates that 15 to 35% of the population will become ill during the course of a pandemic and will be unable to work for a period of time. Many people who are not ill may stay home to care for children, other family members, or friends who are ill. As well, some people may stay home due to concerns or fears about potential exposure to influenza in the community and in the workplace. The resulting high rates of employee absenteeism will affect every sector and every part of the county. Strategies to manage staffing shortages include redeploying staff from non-urgent activities or drawing on additional workers such as recent retirees, students, or volunteers.

To support our health care system and the county's critical infrastructure whenever possible, health care providers or emergency/essential service providers should consider having their spouse/partner stay home to care for sick family members or provide child care.

4.2 Supply chain disruption

Given widespread social disruption and employee absenteeism, supply chains may be interrupted. The pandemic will affect countries around the world, with some regions hit earlier, longer, and harder than others. If border crossings or transportation systems are disrupted, the delivery of supplies may be delayed.

Organizations should purchase from local suppliers wherever possible, make plans for regular shipments, and stockpile six to eight weeks of critical supplies (those required to maintain service operations). In addition to critical supplies, your organization should have an adequate supply of disposable tissues, hand sanitizers, and hand-washing supplies.

4.3 Public health measures

Public health measures are non-medical interventions that may be used to reduce the spread of the influenza virus in the community. These measures may include public education, case and contact management, and community-based disease control measures such as cancellation of public gatherings (e.g., conferences or sporting events) or closure of schools and day nurseries. In addition, the federal government may issue travel restrictions and screening of travelers. These measures will likely disrupt service in the short term.

4.4 Changes in demand for services

During an influenza pandemic, the people of Renfrew County & District will need access to information and municipal and county services (e.g., emergency services, public health services, and clean water) to help reduce the impacts of the pandemic on their health and daily activities.

To prepare for an influenza pandemic, each agency must develop a service continuity plan that:

- identifies the organization's mandated and critical services
- ranks all services in order of priority
- identifies the internal and external effects of disruptions

5.0 Critical Elements of Emergency Preparedness

5.1 Communication

Communication will be critical to an effective response to the pandemic. All organizations should have plans in place for communicating with employees during an emergency. Phone trees or e-mail lists ensure rapid and efficient communication with a large number of employees, provided that employee contact information is kept up-to-date. Your organization may choose to designate one individual who will be responsible for receiving and communicating information. Strategies should also be developed for communicating with clients and community stakeholders about changes to or disruptions in services.

5.2 Education and training

Education and training sessions should be developed and provided to staff regarding emergency and service continuity plans, so they will know their roles and responsibilities. Staff should also be trained in infection control precautions and the proper use of personal protective equipment.

5.3 Skill set inventory

The skills of all employees and the skills needed to provide the critical services of the organization should be recorded. The skill set inventory provides the planners with the ability to identify transferable skills that would allow an employee to be transferred from one task, job, or workplace to another without the need for extensive training or close supervision.

5.4 Service continuity plan

The homeless and housing service providers will need to prepare for pandemic influenza to reduce the impact on their operations and ensure continuation of services wherever possible. Service providers must also begin to prepare for the specific disruptions you may face during a pandemic and develop a service continuity plan. This information will assist you with planning and preparedness for any emergency.

Service continuity planning includes:

1. Establishment of a steering committee or lead individual
2. Service impact analysis
3. Service continuity plan
4. Readiness procedures
5. Quality assurance

1. Establishment of a steering committee or lead individual

The first step in the planning process is to establish a Steering Committee or designate an individual to oversee, support, and direct the development of a service continuity plan. This includes:

- providing strategic direction and communicating essential messages
- approving the results of the service impact analysis
- reviewing critical services
- approving continuity plans and arrangements

2. Service impact analysis

The service impact analysis provides the organization with a list of critical services and identifies how disruptions will affect internal and external stakeholders. The analysis involves the following steps:

- review the mandate of your organization and determine which services must continue during an emergency.
- for each service, identify:
  - ⇒ the impact of a disruption and the length of time the organization or the community could function without the service
  - ⇒ additional expenses that arise due to the loss of service
  - ⇒ intangible expenses such as loss of image or reputation
- identify any insurance requirements
- rank the critical services according to:
  - ⇒ the severity of impact a disruption would cause
  - ⇒ time required to recover from the disruption
- identify internal and external requirements for providing the services:
  - ⇒ internal – employee availability, equipment, facilities, vehicles, etc.
  - ⇒ external – suppliers, utilities, transportation, etc.

3. Service continuity plan

A service continuity plan should be created for each critical service identified in the service impact analysis. The service continuity plan is a detailed list of response and recovery activities and arrangements to ensure that all necessary actions are taken to provide services during an emergency.

In planning for service continuity, organizations should:

- identify risks that might threaten the service and develop methods to eliminate or reduce the risk
- analyze current recovery capabilities and review current recovery plans
- create service continuity plans that can be changed as the severity of the emergency changes; plans should be based on the most realistic and effective option

4. Readiness procedures

The key to any service continuity plan is to ensure that the staff carrying out the plan have been properly trained and that the plan's readiness has been tested. This means:

- briefing all staff on the contents of the plan and their roles in the event of an emergency
- ensuring that managers or staff with specific functions outlined in the plan are trained in those functions and conducting exercises to ensure a high level of competence and readiness

5. Quality assurance

The service continuity plan should be reviewed regularly to identify opportunities for improvement and to ensure that it meets any new demands of the organization or addresses emerging risks.

For further information on service continuity planning, visit Public Safety and Emergency Preparedness Canada at www.psepc-sppcc.gc.ca

5.5 Changes in staffing and redeployment

High rates of absenteeism may result in changes to staffing, chains of command, hours of work, or employee responsibilities. Organizations should discuss these implications with employees, unions, and human resources staff before an emergency begins.

During an emergency, agencies may delegate new job functions to employees or move employees to other job sites where they are most needed.

5.6 Human resources policies

All workplaces should develop alternate human resource policies for a pandemic emergency to address the following issues.

Attendance management

During an influenza pandemic, RCDHU will advise ill people to stay home. However, attendance management policies may create barriers to staff staying home. For example, your organization may require employees to obtain physician notes following a certain number of consecutive days of absence due to illness. During an influenza pandemic the health care system may be overwhelmed with people seeking necessary medical attention. Requests for physician notes will overload the system unnecessarily. Once a local emergency has been declared for an influenza pandemic, current policies that may pose a barrier to effective disease control and prevention should be suspended or revised as appropriate.

Ill employees at work

During a pandemic, some employees will develop symptoms of influenza while at work. These individuals must immediately leave the workplace and should not return to work until five days after the onset of symptoms, or when they feel well enough to return to their duties, whichever is longer. This procedure will help slow the transmission of the virus in the workplace. Ill employees should be requested by their manager or supervisor to leave work even if they do not have sick day credits. Agencies will need to address the issue of compensation for this type of situation.

Emergency scheduling

During a pandemic, work schedules may have to be changed. In planning for these changes, organizations must consider the implications of:

- shift changes
- changes to hours of work
- compensation and scheduling of overtime
- the need to assign the most qualified employees to specific tasks
- training employees for newly assigned work
- provision of food to employees
- parking requirements or reimbursement for transportation expenses
- scheduling of breaks

Current collective agreements, if applicable, may not adequately address these issues. Agencies should negotiate solutions to these issues with each relevant union so that emergency response plans can be implemented effectively and efficiently.

5.7 Occupational health and safety

A pandemic will likely cause a high level of anxiety among the general population. Employees will be concerned about their own health and the health of their families. They may be concerned about potential exposure to influenza in the workplace and, as a result of these concerns, some may refuse to work. Employees will have questions relating to occupational health and safety. Informing employees of their rights, providing training and equipment as appropriate and communicating openly about emergency planning processes will help to alleviate anxiety.

Psychosocial support

People affected by a disaster, such as a pandemic, must adjust to major changes in their lives. People may be grieving for friends or family members and may have to deal with personal or family crises. Many people will need to talk about their feelings and experiences and learn how to face the challenges of an unknown future. Support systems should be considered.

5.8 Infection prevention and control measures

This section provides general information on infection prevention and control. More specific measures for community living settings are outlined in section 6.1.

Infection control measures are actions that can help prevent the spread of the influenza virus in the workplace and other settings. These measures include:

(a) Practise hand hygiene

Clean your hands frequently with an alcohol-based hand sanitizer or soap and water, especially after you cough, sneeze, or blow your nose. A 60 to 90% alcohol-based hand sanitizer is the preferred agent for hand hygiene unless your hands are visibly soiled. If your hands are visibly soiled, you should wash them with soap and water. If you are not near water and your hands are visibly soiled, clean your hands with a moist towelette to remove visible debris, then use an alcohol-based hand sanitizer. The influenza virus is easily killed by soap, hand wash or hand sanitizer products. Therefore gloves or special antibacterial hand wash products are not needed. Hand washing/sanitizing is a very important method to prevent the spread of pandemic influenza.

Hand washing procedure

1. Wet hands.
2. Apply soap.
3. Lather for 15 seconds. Rub between fingers, back of hands, fingertips, under nails.
4. Rinse well under running water.
5. Dry hands well with paper towel or hot air blower.
6. Turn taps off with paper towel, if available.

Hand sanitizing procedure

1. Follow the manufacturer's recommendations on the amount of hand sanitizer to use.
2. Apply the alcohol-based sanitizer to the palm of one hand.
3. Rub hands together.
4. Work the sanitizer in between fingers, the back of hands, and fingertips (covering all parts of the hands and fingers).
5. Keep rubbing hands until they are dry.

For more information on hand hygiene, refer to section 6.1.

(b) Practice respiratory etiquette

People should be encouraged to cover their mouth and nose when they cough or sneeze. This will help stop the spread of germs that can make people sick. It is important to keep your distance (e.g., more than one metre/three feet) from people who are coughing or sneezing, if possible.

Cover your cough procedure

1. Cover your mouth and nose with a tissue when you cough or sneeze or, if no tissues are available, cough or sneeze into your upper sleeve, not your hands.
2. Put your used tissues into the wastebasket.
3. Wash your hands with soap and water or clean them with an alcohol-based hand sanitizer.

(c) Avoid touching your eyes, mouth and nose

Influenza spreads when the infected respiratory secretions from the mouth or nose of one person come into contact with the mucous membranes (mouth, nose or eyes) of another person. Without even realizing it, you may touch the infected nose and mouth secretions of someone who has influenza (e.g., by shaking hands). If you go on to touch your mouth, nose or eyes, the influenza virus may gain entry into your body, causing infection.

(d) Stay home if you are ill

Most adults infected with influenza can transmit the virus from 24 hours before and up to five days after they begin to experience symptoms. For some adults and for young children, this period may last for seven or more days. Some experts believe that people are most infectious in the first three days after they are infected with influenza. However there are no clear data on how long a person should wait before returning to work or school to minimize the risk of infecting others. The best advice at this time is that adults should not return to their usual activities for at least five days after they begin to experience influenza symptoms (seven days for young children) or when they feel well enough to return to their duties, whichever is longer. It should be made clear that employees must not come into work when they have influenza-like symptoms. If an employee develops influenza-like symptoms while at work they should immediately leave the workplace.

(e) Use of masks

Staff may request masks for protection on the job. The use of masks is a difficult and unresolved issue. There is no evidence that the use of masks in public will protect an individual from infection when the influenza virus is circulating widely in the community. However, a person wearing a surgical mask properly at the time of exposure to influenza may benefit from the barrier that a mask provides.

At this time, federal and provincial plans recommend the use of surgical masks and eye protection for health care workers who provide direct care involving face-to-face contact to patients with influenza-like illness. The plans also recommend that people who are ill with influenza-like illness and who must leave their home to receive medical attention should wear a mask. The plans do not recommend the widespread use of masks as a community-based disease control strategy. However, the federal plan states that members of the public may wish to purchase and use masks for individual protection.

(f) Vaccine administration and distribution

In the event of an influenza pandemic, it will take approximately four to six months to produce a suitable vaccine. Initially, there will not be enough vaccine for everyone. The federal and provincial governments have identified "priority groups" to receive the vaccine. The groups, listed in order of highest to lowest priority, are:

- health care workers
- essential service workers
- persons at high risk of serious illness
- healthy adults
- healthy children

The priority groups may change depending on the nature of the influenza pandemic. RCDHU worked with hospitals and other organizations to ensure that priority groups 1 to 3 were enumerated for vaccine, as an estimate for vaccine requirements. When enough vaccine becomes available, RCDHU will organize mass vaccination clinics to vaccinate the general public. RCDHU will make public announcements about the time and location of these clinics.

(g) Use of antiviral medication

The Province of Ontario is developing a stockpile of the antiviral medication oseltamivir (Tamiflu). However, the stockpile is limited. During a pandemic, antiviral medication will most likely be used to treat those with severe influenza illness. However, as the antiviral stockpile increases, the goal will be to provide treatment to everyone who is ill with influenza. Although the effectiveness of antiviral medications against a novel pandemic virus is unknown it is likely that they will reduce the severity of influenza illness caused by a pandemic.

As of September 2006, the potential role of antiviral medication for prevention of infection (or prophylaxis) during an influenza pandemic is being considered at both the federal and provincial levels of government.

(h) Cleaning workplaces

People with influenza may contaminate their surroundings with respiratory secretions from their nose and mouth. Surfaces that are touched frequently by people (e.g., doorknobs, computer terminals, bathroom faucets or other shared equipment) should be cleaned more often than usual during a pandemic, if possible. Regular cleaning products easily kills the influenza virus, therefore special cleaning agents or disinfectants are not required. Organizations should follow their current infection control protocols for cleaning and disinfecting. Garbage created by a person with known or suspect influenza does not need any special handling and may be placed with the regular garbage for disposal.

(i) Social distancing in the workplace

During an influenza pandemic, the more people you are in contact with, the more you are at risk of coming in contact with someone who is infected with influenza. Social distancing means reducing or avoiding contact with other people as much as possible. Some workplace strategies to achieve this may include:

- minimizing contact with others by using stairs instead of crowded elevators; canceling non-essential face to-face meetings and using teleconferencing, e-mails, and faxes instead; staying one metre (three feet) away from others when a meeting is necessary
- avoiding shaking hands, hugging, or kissing people
- bringing lunch and eating at your desk or away from others

6.0 Housing, Residential and Social Service Providers – Specific Issues

This section of the guide has been developed in collaboration with a sub-committee of Toronto's Infectious Diseases Preparedness Protocol Community Reference Group and reflects specific issues identified by these stakeholders. This section provides sector specific information, which compliments the general information, outlined in sections 1 to 5.

Agencies that provide temporary housing, congregate living spaces or other services for people who are homeless or underhoused such as shelters, drop-in centres, rooming houses, boarding houses, and supportive housing units are extremely diverse. They offer programs to a wide variety of clients, and operate under different organizational and funding structures. This planning guide is intended to support the planning process, and each agency should adapt this guide to its own setting.

What to expect

During an influenza pandemic, community agencies may need to provide basic support to ill individuals, as hospitals will be overwhelmed. Agencies will also need to support the isolation of ill individuals when it is not possible to isolate these individuals elsewhere. Service providers are not expected to provide complex care to ill individuals. If an individual's health status deteriorates, service providers should seek medical attention by contacting a hotline such as Telehealth Ontario, local health care provider, hospital, or 911.

Homeless and housing service provider agencies should consider partnerships with other health and non-health related agencies to develop strategies which may be used during an influenza pandemic. Agencies should consider the following when developing your pandemic influenza plans:

- connect with other health organizations (e.g., community health centres, hospitals, local physicians, public health, volunteer agencies)
- consult existing pandemic influenza plans (e.g., the Renfrew County & District Pandemic Influenza Plan)
- identify ways to share resources during a pandemic
- develop possible scenarios and identify disruptions that will be faced during an influenza pandemic and how they will affect the agency or facility

6.1 Basic principles of infection prevention and control in community living settings

The following are recommendations for routine practices for basic infection control during a pandemic.

(a) Hand hygiene

Hand hygiene is the cornerstone of infection control, particularly during an influenza pandemic.

Promote hand hygiene by:

- teaching clients and staff how to wash their hands
- posting signs reminding clients and staff to wash and/or sanitize their hands
- making hand washing supplies easily accessible, such as alcohol-based hand sanitizer, soap, water, disposable towels, and garbage cans
- providing liquid soap for hand washing, or, if this is not possible, provide each person with his or her own bar of soap and towel to avoid contamination
- during a pandemic, making hand sanitizer available at convenient locations throughout the facility, such as at entrances to the building, in hallways, at doors to rooms, and at the bedsides of ill individuals

(b) Respiratory etiquette

Please refer to section 5.8 (b).

(c) Avoid touching your eyes, mouth and nose

Please refer to section 5.8 (c).

(d) Use appropriate personal protective equipment (PPE)

Agencies will need to support individuals who are ill and are currently living in a community living setting. It is important to base planning on the assumption that not all individuals who are ill with influenza can or need to be hospitalized. The following recommendations for the use of personal protective equipment refer specifically to situations in which housing, residential and social service providers provide "care in place."

- Sit next to rather than in front of a coughing client when providing care.
- Wear a surgical mask and eye protection when providing direct care to an ill client with influenza-like illness.
- Gloves are recommended when there is a risk of hand contact with a client's body fluids. Gloves should be used as an additional measure and not as a substitute for hand hygiene.

How to put on and remove a surgical mask

- Wash your hands before putting on a mask.
- Secure on head with ear loops.
- Place over nose, mouth, and chin.
- Fit flexible nose piece over bridge.
- Adjust fit – snug to face and below chin.
- To remove a mask, front of mask is 'dirty'; handle by earpieces.
- Remove from face, in a downward direction, using ear-loops.
- Dispose of the mask in an appropriate receptacle, such as a garbage can. Do not re-use the mask.
- Wash your hands after removing the mask.

Criteria for selecting eye protection

- Eye protection must provide a barrier to splashes from the side.
- May be safety glasses or face shields.
- May be single use disposable or washable before reuse.
- Prescription eyeglasses are not acceptable as eye protection.

How to put on and remove eye protection

- Position eyewear over eyes and secure to head using ear pieces.
- Outside of eyepiece is 'dirty'; handle by earpieces.
- To remove, grasp earpieces with ungloved hands.
- Pull away from face.
- Place in designated receptacle for reprocessing.

Tips on selecting gloves

- The Public Health Agency of Canada recommends disposable medical gloves made of rubber, vinyl, nitrile, neoprene or latex. Some people may be allergic to latex.
- Medical gloves should never be used when handling cleaning chemicals. For environmental cleaning and disinfecting, general-purpose reusable rubber gloves are appropriate.

How to put on and remove gloves

- Gloves should be used whenever physical contact is expected with any bodily fluid (e.g., saliva, blood, mucous, stool).
- Wash your hands before putting on gloves.
- Pull gloves onto your hands and over the cuffs of your gown, (if wearing gown).
- Change gloves between caring for different individuals.
- To remove gloves, pull the first glove off without touching your hand (glove to glove) and roll the glove inside out as you slip it off. Pull the second glove off by sliding your finger inside the glove (skin to skin) and roll the glove inside out as you slip it off.
- Dispose of the gloves in an appropriate receptacle, such as a garbage can. Do not re-use gloves.
- Wash your hands after removing gloves.

(e) Equipment

In all settings where care is delivered, staff should follow procedures for managing and disposing of equipment (e.g., digital thermometers, goggles, gloves, masks) consistent with the Public Health Agency of Canada Guidelines at:

www.phac-aspc.gc.ca/publicat/ccdr-rmtc/98pdf/cdr24s8e.pdf

Take only the equipment needed into the area where care is provided to individuals. Clean and disinfect all reusable equipment. Whenever possible, use disposable equipment that can be safely discarded with the regular garbage. Dispose of this equipment immediately after leaving the room where care has been delivered.

(f) Clean the environment

- Do laundry frequently.
- Every day, clean common rooms and rooms where ill individuals are staying. Be sure to clean tables, doorknobs, and other surfaces that are touched frequently. Use a solution of bleach and water. For general disinfecting, use a mix of 1 part bleach to 100 parts water (approximately 1-teaspoon bleach to 2 cups water). For surfaces that may be contaminated with body fluids, use a more concentrated solution of 1 part bleach to 10 parts water.

- Wipe down phones, computer keyboards, and other equipment with a cloth dampened with a bleach and water solution. During a pandemic, consider wiping communal phones and computers between each use or restricting the use of frequently used items.
- Dispose of all waste promptly.

Cleaning up body fluids

1. Ensure that the area where the body fluid spill has occurred is blocked off.
2. Wash hands for 15 seconds.
3. Put on disposable rubber gloves specific for cleaning. Do not use latex gloves, as they are not designed to withstand cleaning solutions.
4. Pick up any needles or sharps using tongs and place them in a sharps container.
5. Wipe up the spill using disposable paper towels, then place paper towels in a garbage bag.
6. Pour the bleach disinfecting solution (see above) onto all contaminated areas. Be careful not to spill the solution on your skin or clothing.
7. Let the bleach solution sit for 20 minutes.
8. Wipe up any remaining bleach solution with a mop or paper towels.
9. Soak mops or non-disposable materials in the bleach solution and let them air-dry.
10. Remove gloves and place in the garbage bag. Double bag and secure the garbage bag before throwing it out.
11. Wash hands for at least 15 seconds using soap and water.

(g) Food services

During an influenza pandemic, community living settings should reinforce routine food safety and sanitation practices. Facilities should also consider the following:

- reinforce regular hand washing by staff members who prepare food
- discourage the sharing of dishes, cutlery, and other items
- use disposable cutlery and pre-packaged food, if staffing levels are low
- consider stockpiling a 6–8 week supply of non-perishable food, in case deliveries of food are disrupted
- plan for alternative food supplies, in case regular services are interrupted

For recommendations on proper food handling, call Renfrew County & District Health Unit at 613-732-3629 or 1-800-267-1097.

(h) Develop or review infectious disease protocols, policies, and procedures

Develop or review existing protocols on infection control and response to infectious diseases. For example, during an influenza pandemic:

- Screen all individuals on admission to the facility for Febrile Respiratory Illnesses (FRI), that is, fever and cough, or symptoms of influenza. Individuals with symptoms should be placed directly in isolation until influenza infection can be ruled out.
- Require that all people sanitize their hands upon entering the building. To minimize the number of staff required to oversee this requirement, consider using one primary entrance and closing secondary entrances.

(i) Train staff and clients on routine practices for infection control

- Consider providing in-service education sessions for staff on infection control and use of personal protective equipment.
- Educate clients on hand hygiene, respiratory etiquette, and other infection control practices for example by posting hand washing and respiratory etiquette signs.
- Provide staff access to infection control policies and procedures.

(j) Reduce client mobility

Homeless and under housed populations tend to be highly mobile in part because services are spread across multiple agencies. Over the course of a day, one individual may visit several agencies. During a pandemic, this high mobility may promote the rapid spread of the virus through this population. Strategies to reduce individuals' mobility include:

- limiting the movement of residents, such as transfers between shelters
- limiting the number of clients or visitors at drop-ins or other day programs
- canceling or postponing group activities, if possible
- providing incentives to reduce mobility; for example, re-organizing services so that three meals are offered at one facility, instead of one meal each at three different agencies

6.2 Supporting ill individuals

During an influenza pandemic, community living settings may need to provide basic support to ill individuals, since hospitals will be overwhelmed.

(a) Identifying influenza symptoms

What are the symptoms of influenza?

Infection with influenza can result in a wide range of illness. Half of the infected people will experience symptoms and the other half may not have any symptoms. Symptoms may include the following:

- sudden onset of fever, headache, chills, muscle aches, physical exhaustion, and a dry cough
- subsequent onset of sore throat, stuffy or runny nose, and worsening cough
- children may feel sick to their stomach, vomit or have diarrhea
- elderly and immune compromised people may not develop a fever

How do I know someone has a fever?

Sometimes we think someone has a fever by simply touching their forehead or neck but it is important to confirm a fever by checking his/her temperature. We can measure a person's temperature by using a thermometer with a sleeve placed in the mouth (oral), the ear (tympanic), under the armpit (axillary) or in the bum (rectal). The use of glass mercury thermometers is not recommended as mercury is a toxic substance and there is a risk that glass may be broken. Ideally, a digital thermometer should be used for taking oral, axillary or rectal temperatures and a special ear thermometer should be used for taking a tympanic temperature. These thermometers can be purchased at drug stores.

Someone has a fever if:

- The oral/tympanic temperature is 38°C (100.4°F) or higher.
- The axillary temperature is 38°C (100.4°F) or higher.
- The rectal temperature is 38.5°C (101.3°F) or higher.

(b) Isolation

Not all ill individuals will be able or need to be hospitalized. As a result, many ill individuals will need to be isolated in non-hospital settings. Ideally, an ill individual should be isolated as soon as possible to reduce the transmission of the virus.

Homeless and housing service providers may encounter a range of issues when attempting to provide isolation for an ill individual. Each setting will face its own challenges, depending on the population served, the services offered, and the physical lay-out of the facility. Some agencies, such as drop-in centres, may find care-in-place particularly challenging. The following are some of the issues agencies should consider when deciding on isolation options:

- Individuals in isolation need easy access to washrooms. This may pose challenges in dormitory-style settings. When accommodating a group of ill individuals, consider access to washrooms. If communal washrooms are used, clean them frequently.
- Ill individuals need access to food, drinks, and medications. Staff need to wear appropriate personal protective equipment when bringing supplies and providing support to ill individuals (e.g., surgical mask and eye protection if providing direct face-to-face care within 1 metre of the ill person).
- Agencies should develop strategies for handling violent, aggressive, or non-cooperative clients who are ill and are required to remain in isolation. Ill individuals in isolation may also have other mental health issues that require intervention.
- During an influenza pandemic, policies related to access to smoking, drugs, or alcohol may need to be changed, particularly for individuals in isolation.
- Individuals in isolation may need to refill prescriptions or need access to daily medications such as methadone. Consider what assistance clients and guardians may need for obtaining and taking prescribed or over-the-counter medications.
- Different isolation options from ideal to least ideal, for the isolation of ill clients in community living settings during an influenza pandemic are shown in Figure 2 on the next page. Isolating ill clients in separate facilities is the most ideal. If isolation in a separate facility is not possible, consider the options listed.

Figure 2: Isolation in Community Living Settings

IDEAL

1. Maintain Routine Infection Control Practices

- Practice hand hygiene.
- Practice respiratory etiquette.
- Use appropriate personal protective equipment.
- Clean equipment.
- Clean environment.

2. Isolate – in a Separate Facility

3. Isolate Within the Facility

- Separate individuals by more than 1 metre.
- Wear a surgical mask when providing direct care within 1 metre (3 feet).
- Arrange beds so that individuals lie head to toe relative to each other.
- In large rooms, create temporary physical barriers between beds, using sheets or curtains.
- Direct ill individuals to hospitals, if necessary.

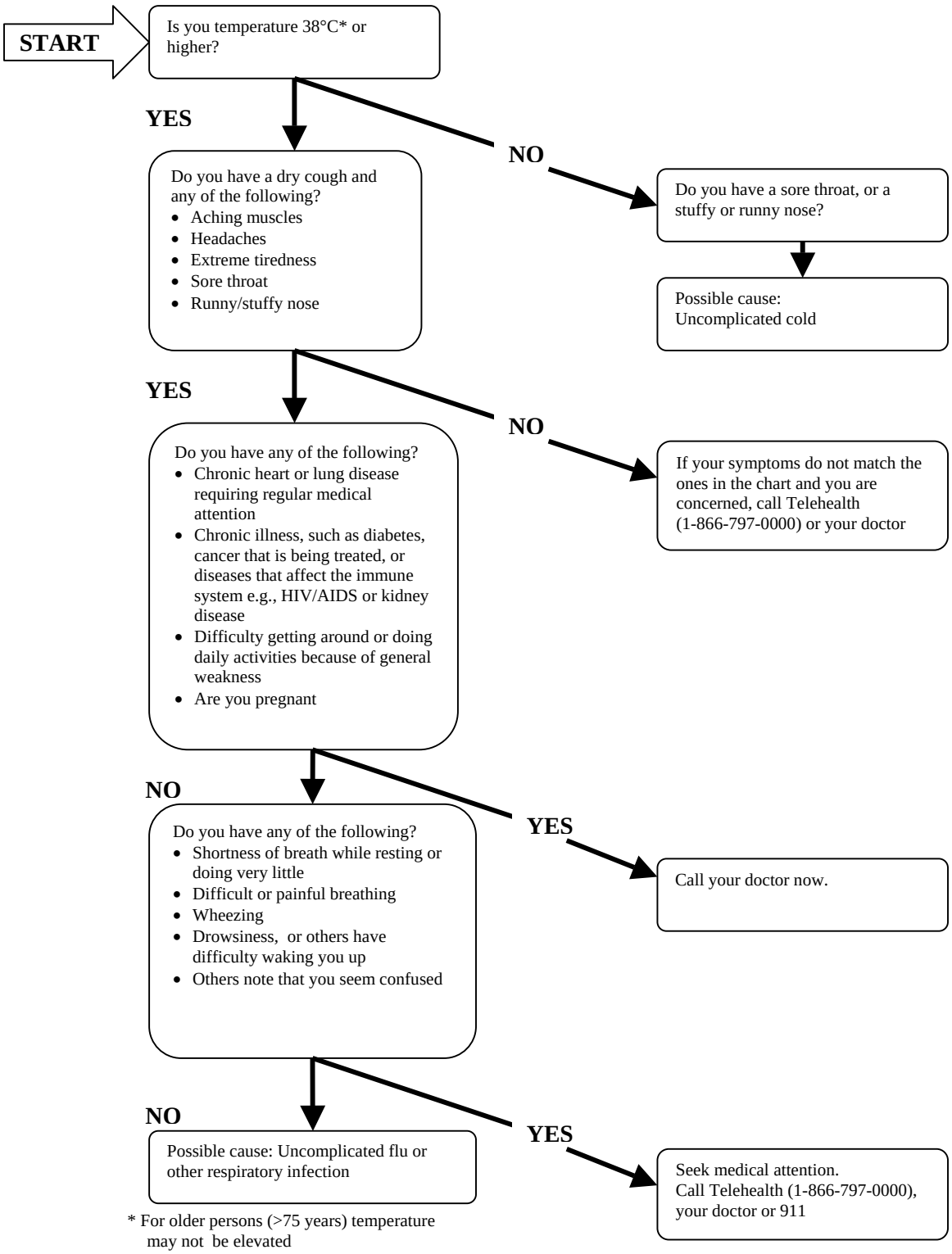
1 Person Ill	2 – 10 People Ill	More than 10 People Ill	Majority of People Ill
Isolate in separate room	Accommodate together in common area	Accommodate together on one floor or in a separate section of the building	Accommodate Together throughout the entire site
Isolate in shared room	Accommodate together in common area	Accommodate together throughout the entire site	Close facility
Isolate in large shared space	Accommodate together at one end of floor		

LEAST IDEAL

(c) Illness progression

RCDHU's decision-making tool on when to seek medical attention, adapted from the Canadian Pandemic Influenza Plan self-care algorithm for adults, is provided to assist with decision making on whether an ill individual can look after himself or herself, or needs general medical advice or immediate medical attention (see Figure 3).

Figure 3: Decision- making tool for seeking medical attention for adults



Adapted from Health Canada's Canadian Pandemic Influenza Plan – February 2004

Some agencies have on-site nursing or medical care or close ties with organizations or health care workers who can provide advice on the clinical management of ill individuals. The following planning strategies may strengthen an agency's capacity to make such decisions:

- Prepare contact lists of health providers and organizations.
- Consider discussions to engage them in providing consultation if needed. For example, boarding houses may have a designated house doctor to provide care for residents.
- Develop partnerships with health care providers, walk-in clinics, and family physicians or strengthen ties with organizations with expertise in the health care needs of homeless and under- housed populations, such as community health centres and family health practices.
- Consider creating an informal network for homeless service providers and health care providers for emergencies such as an influenza pandemic.

An ill individual may refuse treatment or isolation. Renfrew County & District Health Unit's Medical Officer of Health has the capacity to legally order isolation and/or treatment for certain communicable diseases if necessary to reduce risk to the community. However, during an influenza pandemic, this is not likely to occur as there will be too many cases to contain the spread of the virus. Staff should do their best to persuade ill individuals to accept treatment.

What can clients do if they have a fever?

- Dress in lightweight clothing and keep the room temperature around 20°C (68°F).
- Drink plenty of cool fluids to replace fluids lost in sweat.
- Eat nutritious meals (e.g., soup).
- Acetaminophen (e.g., Tylenol™, Tempra™) is an over-the-counter medication that will help reduce fever. Use the dose and schedule recommended on the package or by the clients' doctor or pharmacist. Ibuprofen (Advil™ or Motrin™) may be used for children older than six months and for adults. Acetylsalicylic acid, also known as ASA, (Aspirin™) should not be taken by anyone under 18 years of age because it can lead to brain and liver damage (Reye's Syndrome).

(d) Deaths on site

An ill individual may die from influenza in a community living setting. During the pre-pandemic phase, agencies should establish connections with local funeral homes if connections have not already been established. Staff should have contact information for these funeral homes. The coroner must be notified of all deaths that occur at community living settings.

Community living settings should consider the following points:

- The bodies of people who died of influenza are not considered contagious to others.
- Particular cultural responses to death should be considered when handling human remains.
- Staff and clients may experience heightened anxiety if a death occurs on site, therefore it may be necessary to provide psychosocial support to staff and clients.
- Community living settings will need to identify areas where bodies can be stored temporarily until transportation to a morgue can be arranged, as well as appropriate storage for the deceased's personal effects.

(e) Outreach clients

Agencies should create a master list of clients who are receiving off-site or home-based services and maintain a record of the type of services provided. A "ranking tool" should be developed to prioritize outreach clients based on the service provided and the individual needs of that client.

The client's risk level should be identified to determine the minimum frequency at which they should be seen, given their individual needs (e.g., medication, food). If agencies anticipate they

will not be able to reach their high-risk outreach clients, they should attempt to engage alternative services (community/volunteer) ahead of time to ensure continuity of service.

During an influenza pandemic, service providers should, if possible, screen clients for symptoms of influenza-like illness before a scheduled visit. Clients should be asked to contact the service provider should they develop influenza-like symptoms prior to a scheduled visit.

If outreach clients have symptoms of influenza-like illness, staff should be equipped with and use personal protective equipment and preventive practices, including droplet and contact precautions.

Outreach kit

During an influenza pandemic, every worker doing outreach activities with clients should carry the following supplies (per visit):

- two pairs of disposable rubber gloves
- two pairs of non-latex gloves
- two surgical masks
- two pairs of goggles
- one thermometer
- one bottle of personal hand sanitizer
- 10 moist (preferably alcohol-soaked) hand wipes
- two re-sealable plastic bags for contaminated garbage
- a water-resistant bag to carry supplies (e.g., plastic bag)

These supplies can easily be transported in a backpack or carry bag. Most supplies have expiry dates and care should be taken to make sure the kit does not contain expired items. Also, the kit should be protected from temperature extremes (hot or cold) and moisture (water) as much as possible.

Clients who are not receptive to shelter outreach should be given written information (pamphlets) on medical treatment locations so they can do their own follow-up.

(f) Stockpiling supplies

Agencies should consider stockpiling critical supplies that will enable care on site for ill individuals:

- Medications used to bring fevers down, such as acetaminophen.
- Soap, paper towels, hand sanitizer, hand wipes, and tissues.
- Cleaning supplies, garbage bags, and other waste disposal supplies.
- Personal protective equipment, such as gloves, surgical masks, and goggles.
- Equipment, such as thermometers.

(g) Children whose parents are ill

If a client with children becomes ill in a family shelter and is unable to supervise his or her children, consider the following strategies:

- Ensure client emergency contact information is up to date and, if possible and appropriate, ask clients to identify temporary caregivers for their children.
- Try to locate family members or friends of the client who could care for the children temporarily.
- Find appropriate caregivers within the agency.
- Call Family & Children's Services for support or to arrange temporary custody as a last resort

(h) Closure of agencies

Agencies should consider what would trigger closing the facility or consolidating services at a larger centrally located facility. These triggers will be based on the maximum client capacity and the minimum number of staff needed to support clients. As these numbers vary for each agency, a decision-making tool has been provided to facilitate planning (see Figure 4). Consider the following options to plan for staffing levels becoming inadequate at smaller agencies:

- Create a mobile team of additional staff who could provide supplemental support if smaller agencies require additional staff. During the pre-pandemic phase, staff could participate in training or job shadowing with partner agencies to learn basic practices and procedures. Agencies could develop manuals on their procedures to ensure the quick integration of staff from mobile teams. Health care workers who currently work with agencies providing services for homeless people could join mobile teams and travel from agency to agency as needed.
- Pool resources (For example, food preparation staff could be consolidated at one agency's kitchen to prepare food for a number of smaller sites. In this situation, transportation of prepared food will need to be arranged.)
- Offer services outside the building or off-site in the community rather than at the agency (for example, serve meals outside the building, or have food trucks deliver bagged lunches to community drop-off spots rather than to the agency).
- Draw on additional sources for food preparation and other services (such as volunteers from programs such as Meals on Wheels or community college programs for food handling and social services).
- Broaden target populations or regular client groups in larger agencies (for example, use a wing in a men's shelter for women, if a women's shelter closes).
- For smaller sites with only a few staff, such as boarding houses or rooming houses with staff support, where even a few staff away from work may force services to be terminated, consider alternative arrangements for clients who require care. Some tenants may have specific rights under the Tenant Protection Act or the Innkeepers' Act in such situations.
- Consider adjusting volunteer roles and responsibilities as necessary.

Figure 4: Decision-making tool for closing a facility

The purpose of this table is to help agencies determine their minimum staffing needs and maximum client capacity levels. The minimum number of staff required to ensure that services are provided safely will vary depending on the specifics of each agency.

	Day		Evening		Night	
Roles	Staff (Min.)	Clients (Max.)	Staff (Min.)	Clients (Max.)	Staff (Min.)	Clients (Max.)
Front line, Intake, Assessment, and Counselling						
Supervision						
Nursing						
Cleaning and Supplies						
Food preparation						
Other						
Total						

(i) Staff staying on site

Agencies may want to consider providing space for staff members to stay at the facility, particularly those who may have difficulty securing transportation to and from their homes. Staff should plan for alternative child care arrangements in case transportation services are reduced or schools or day nurseries are closed. If no alternative child care arrangements are available, agencies may want to develop strategies to assist staff.

7.0 Planning Checklist

7.1 Planning Checklist – Short Version

Planning Issues	Completed Yes/No	Comments
Does your organization have an emergency plan?		
Have you identified which tasks and positions would be essential during an emergency?		
Have you considerer how to keep your organization operational with a large number of staff ill and unable to work?		
Have you considered alternative strategies on how to continue service delivery when normal methods are disrupted?		
Do you have a mechanism to monitor increases in staff absenteeism?		
Have you considered how you would communicate information to your staff and clients in an efficient manner?		
Have you considered how you would provide your staff with support and counseling?		
Have you developed a service continuity plan for your organization for decreasing or altering the services that you offer?		
Do you know how to get up-to-date and accurate information about influenza and the pandemic?		
Have you trained your employees on proper hand washing and respiratory etiquette?		
Is your cleaning staff aware of proper disinfecting techniques during a pandemic?		
Have you considered stockpiling necessary supplies?		
Have you considered how to deal with employees who report to work ill?		
Have you made your employees aware of emergency response plans?		
In case of a death on-site, do you know who to contact? (ambulance, coroner, funeral home)?		

7.2 Planning Checklist – Long Version

Planning Issues	Completed Yes/No/Not Applicable	COMMENTS Document who is responsible for each action and the decision making process
Activation/Termination of Pandemic Flu Response Plan		
Who has responsibility for activating the continuity of operations plan for your organization and who is that person's back up?		
Has your organization identified a process through which the decision will be made to activate and terminate the Plan?		
Do you have a communication strategy for reaching employees and business partners as a result of having to implement any section of the continuity of operations plan?		
Decision-making and Reporting		
Who needs to approve the Pandemic Response Plan?		
Who will be in charge and make decisions within your organization on services during a pandemic/emergency episode?		
Who is identified as being in charge in the event of a pandemic influenza and are the roles of the various stakeholders clearly defined?		
Who makes what decisions?		
Who will make decisions about reducing levels of service and/or terminating services temporarily?		
Agencies and Stakeholder Communications		
Do you have a relevant list of all agencies and stakeholders?		
Who notifies the various stakeholders?		
Communications with Staff and the General Public		
Who will be in charge of communicating to the employees in your organization and who is their back up person(s) to resume this responsibility?		
Have you prepared site-specific procedures for notification of office closures and have you delegated staff as contacts for the public?		

Planning Issues	**Completed Yes/No/Not Applicable**	**COMMENTS Document who is responsible for each action and the decision making process**
If mail service is interrupted, is their critical mail delivery for which you need to make alternative arrangements?		
How will reduction/temporary termination of regular services be communicated to local stakeholders and the public?		
Who has authority to issue public service announcements/new releases and who is their alternative?		
How fast can these announcements be produced and approved?		
Do you know where to get up-to-date and accurate information about influenza and the pandemic? • Vaccine and antiviral medications • Infection control • Personal care • Public health measures		
Planning		
Who do you need input from both internally and externally to prepare and review a continuity of operations plan for your agency/business? • Elected officials • Legal counsel • Community partners • Labour unions/bargaining unit		
Who is in charge in the event of a pandemic episode and are the roles of the various stakeholders clearly defined? Who makes what decisions? Who notifies the stakeholders?		
Is the Pandemic Influenza continuity of operations plan integrated with your emergency preparedness plan(s)?		
Who needs to approve the continuity of operations plan?		
Is your organization's continuity of operations plan integrated with the municipal/county emergency plan and Renfrew County & District Pandemic Influenza Plan?		
What is the staff capacity and are there provisions to bring in additional staff or volunteers?		
Have you identified the key services that must be provided? (Note: take into account minor to major lack of availability of staff due to illness.)		

Planning Issues	**Completed Yes/No/Not Applicable**	**COMMENTS Document who is responsible for each action and the decision making process**
Has your organization identified possible key functions, staff positions, and supplies for each key service?		
Testing of the Plan		
How will you test and/or evaluate your continuity of operational Plan?		
How will you test your communication systems, e.g. fan-out?		
Training and Orientation		
What are the training needs pertaining to an influenza pandemic and the continuity of operations plan for internal (staff) and external stakeholders? • Infection control measures • Environmental cleaning • Equipment use • Roles and responsibilities		
What additional training will volunteers and reassigned staff require?		
Educational Materials		
Have educational materials been prepared/obtained?		
Have public education efforts been planned?		
Human Resources		
Is there a list of all employees complete with telephone numbers (home and business) and job titles (including those recently retired?		
Does your organization maintain a fan-out list to contact employees?		
Is there a contact list of all senior staff within your agency?		
If transportation becomes a problem, can employees arrange alternate forms of transportation to work, e.g. carpooling?		
Has your organization addressed the issue of staff being unable to report to work due to possible school and daycare closures?		
Do you currently have adequate staffing for regular day-to-day function?		
Do you have a mechanism to monitor increases in staff absenteeism?		

Planning Issues	**Completed Yes/No/Not Applicable**	**COMMENTS Document who is responsible for each action and the decision making process**
Has your organization prepared an inventory of skills and professional competencies in the event that people from your organization are required to perform duties/functions in other divisions/programs to maintain essential services?		
How has your organization planned to maintain the employee payroll?		
Health and Safety		
Is there a copy of the Health and Safety Manual on site in your organization?		
Have insurance and union issues been addressed?		
Has an inventory been prepared for specialized equipment/facilities that may be needed during an influenza pandemic?		
Have liability issues been addressed for volunteers and re-assigned staff?		
Have support care services been planned for employees? • Psychosocial support • Grief counseling		
Materials and Support		
Who is signing authority for expenditures during an emergency and who is their alternate?		
Are there clearly stated policies and procedures that cover signing authority and acquisitions?		
Is there a mechanism that will ensure that additional equipment (e.g., cell phones, pagers, refrigerators, etc.) can be obtained with minimum delay?		
Who has authority for ordering repair/replacement for equipment and who is their alternate?		
Are you currently stocked with all of the necessary supplies for regular day-to-day function?		
Does your organization have contact lists for all your supplies and alternate suppliers?		
Who authorizes repairs and supply/equipment orders? Are there other employees who can take over this responsibility during an influenza pandemic?		
Who is planning the recovery phase (e.g., depleted supplies or backlogs)?		

Planning Issues	**Completed Yes/No/Not Applicable**	**COMMENTS Document who is responsible for each action and the decision making process**
Documentation and Record Keeping		
Has your organization developed appropriate record keeping procedures for such items as: • Complaints and issues raised • Significant decisions made • Regular reporting to provincial/federal governments as required.		
Are there people in your organization who have sole access to incoming information (e.g., reports, complaints, etc.) and who are their alternates?		
Information and Technology		
Does your organization maintain a central inventory of passwords to office equipment and electronic files?		
If your information and technology person is ill, who is their alternate?		
Does your organization have access to inventory (including serial numbers) of all computer equipment, printers, fax machines, and photocopiers in case repairs are needed?		
Does your organization have contact lists for all equipment repair persons?		
Will there be a website/telephone call-in line to update staff and public?		
Facilities		
Could any of the organization's services be provided from another work location?		
If necessary, could staff live at the work location or alternative work location for some period of time?		
Who is your security contact should there be a problem with physical access to your work location and who is their alternate?		
How are courier packages generally sent out and received?		
Procurement of additional resources		
Who has the responsibility for procurement, e.g., ordering resources and/or equipment during an influenza pandemic?		
Who will be responsible for payment issues related to overtime and/or additional salary issues and who is their alternate?		

Planning Issues	**Completed Yes/No/Not Applicable**	**COMMENTS Document who is responsible for each action and the decision making process**
Who has the authority to hire contract/temporary workers and to take on volunteers and who is their alternate?		
Is there a pre-approval process in place for purchasing additional supplies? If not, how long does it take for the approval process?		
Post Pandemic Influenza		
What are the immediate lessons learned from the previous wave when planning for multiple pandemic waves?		
Who will be responsible for evaluating your response to the pandemic?		
What factors should be included in the evaluation?		
Who will have the authority to notify the various employees, clients and stakeholders regarding the agency's return to full service?		
Who will decide to reinstate full service?		
Adapted from the Ontario Ministry of Health & Long Term Care Pandemic Influenza Response Plan Template – July 27, 2001		

8.0 Glossary of Terms

A

Acute Care Facility – facility or hospital providing emergency, general medical, surgical, psychiatric, obstetric, diagnostic, and other services; and staffed by physicians and other health professionals.

Adaptive mutation – stepwise changes in the composition of an organism, such as a virus, which occur during the infection of humans or other mammals, and make the organism more easily transmitted among humans.

Airborne transmission – the transmission of organisms, such as a bacteria or viruses, through the dispersion of very small infectious droplets (less than 5 microns in diameter). Such droplets can remain suspended in the air for long periods of time and may be inhaled into the lungs.

Antigenic drift – minor changes in the protein structure of the influenza virus.

Antigenic shift – an abrupt and major change in the protein structure of the influenza A virus resulting in a new subtype.

Antiviral medication – medication used to treat individuals who show early signs and symptoms of influenza and to prevent illness among those exposed to the influenza virus.

Asymptomatic – not showing signs or symptoms of disease.

Avian influenza ("bird flu") – a disease caused by influenza viruses carried and spread among birds. On rare occasions, avian influenza viruses have crossed the species barrier to infect humans.

C

Cleaning – the physical removal of foreign material such as dust, soil, and organic material (e.g., blood, secretions, excretions and microorganisms) with water, detergents, and mechanical action. Physical cleaning removes rather than kills microorganisms.

Cohort – a group of people. In the case of infection, a cohort is a group of people who have been exposed to or infected with the same organism. The word may also be used as a verb to describe the process of separating infected and non-infected people in the same area or institution.

Communicable disease – an illness due to a specific infectious agent or its toxic products that arises through transmission of that agent or its products from an infected person, animal or inanimate reservoir to a susceptible host; either directly or indirectly through an intermediate plant or animal host, vector or inanimate environment.

Communicable period – the time during which an infectious agent may be transferred directly or indirectly from an infected person to another person, from an infected animal to human, or from an infected person to animal, including anthropods (insects and related species).

Contact transmission – transmission of infection through direct physical contact and/or indirect contact via an intermediate object such as contaminated instruments, door handles, etc.

Contact precautions – precautions taken to prevent the spread of infectious agents through contact transmission.

Contagious - able to be spread from person to person or from living object to nonliving object to living object (such as person to object to person).

Critical services/Products – goods or services that must be delivered without fail to ensure the continuing operation of an organization or agency. These goods and services may be mentioned in the mission statement of the organization, or the organization may have legal requirements for delivering specific services and products.

D

Disaster – a natural or man-made event that harms people, properties, livelihoods, or industries, often resulting in permanent changes to human societies, ecosystems, and environments.

Disinfection – the killing of infectious agents on objects and surfaces by direct exposure to chemical or physical agents.

Droplet precautions – precautions taken to prevent the spread of infectious agents by droplet transmission.

Droplet transmission – the transmission of organisms, such as a bacteria or viruses, by large droplets (greater than 5 microns in diameter) produced by sneezing, coughing, talking or singing. These droplets are propelled a short distance (1 metre/3 feet or less) through the air and can come in contact with the eyes, nose, or mouth of another person, thus infecting them.

E

Emergency – the existence of a dangerous situation or the threat of an impending dangerous situation that will adversely affect the property or the health, safety and welfare of the community.

Emergency Operations Centre – a centralized location from which emergency operations can be directed and coordinated.

Emergency plan - documents that describe principles, policies and methods for carrying out emergency operations and providing mutual aid during emergencies, including such elements as continuity of government, emergency functions of government agencies, mobilization of resources, and public information.

Endemic – the constant presence of a disease or infectious agent within a given geographic area or the usual prevalence of a given disease within an area.

Epidemic – the occurrence of cases of an illness (or an outbreak of illness) in a community or region more often than would normally be expected.

Epidemiology – the branch of medical science dealing with the transmission and control of disease, including the study of epidemics and epidemic diseases.

F

Flu – an abbreviation for influenza which is a highly contagious and common respiratory illness cause by a virus. There are three known types of influenza virus – A, B, and C.

FluWatch – weekly reports produced by the Centre for Infectious Disease Prevention and Control (CIDPC) summarizing influenza surveillance activities in Canada. Influenza surveillance is a collaborative effort involving provincial and territorial ministries of health, participating laboratories, the College of Family Physicians of Canada, designated health professionals, and the CIDPC.

G

Genetic reassortment – the process that occurs when genetic material is exchanged.

H

Host – a person or other living animal infected by an organism such as a virus.

I

Immunity – resistance to an infectious agent usually associated with the presence of protective antibodies or cells.

Immunize –to make immune, that is able to resist a particular disease, most often through administration of a vaccine delivered by a needle.

Incident Management System – a model for the command, control and coordination of emergency response, used by individual organizations working towards the common goal of stabilizing the emergency situation and protecting life, property and the environment.

Incubation period – the time interval between initial contact with an infectious agent and the first appearance of symptoms associated with the infection.

Indirect transmission – the transmission of a pathogen from an infected person to an inanimate object and then to another person.

Infection – a condition in which organisms multiply within the body and cause a response from the host's immune defenses. Infection may or may not lead to clinical disease.

Infection control - activities aimed at the prevention of the spread of pathogens between people or animals.

Infectious agent – a disease-causing virus, bacterium, parasite, or other microbe.

Infectious disease – a disease of humans or animals resulting from an infection.

Influenza - a highly contagious and common respiratory illness cause by a virus. There are three known types of influenza virus – A, B, and C.

Influenza-like illness – acute onset of respiratory illness with fever and cough and one or more of the following: sore throat, joint aches, muscle aches or extreme exhaustion, which could be due to the influenza virus.

iPHIS – a web-based integrated public health information system. iPHIS software provides customized health information management tools for daily case management and for reporting health surveillance data at the regional, provincial, and national levels.

Isolation – the separation of an infected person or animal, during the communicable period of a disease, from others to prevent the spread of the infection to others.

M

Mitigation - efforts to prevent a disaster from ever occurring, or to reduce the effects of a disaster when it does occur.

Morbidity – illness; departure from a state of well being, either physiological or psychological.

Morbidity rate – the number of persons in a population who develop a disease during a specified period of time.

Mortality – death.

Mortality rate – the number of deaths occurring in a population during a specified period of time, usually a year, relative to the number of persons at risk of dying during the period.

Must do – critical services that cannot be deferred or delegated.

Mutation – a permanent, transmissible change in the genetic material of a cell.

N

Novel virus – a virus that has never previously infected humans, or has not infected humans for a long time.

O

Oseltamivir – an antiviral drug effective against influenza A and B viruses that inhibits the neuraminidase protein, effectively trapping the influenza virus within the host cell and preventing it from infecting new cells. This can help in preventing infection (prophylaxis) or in reducing the duration and severity of illness once infected. It is effective if treatment is started within 48 hours of symptom onset. In Canada and the USA, oseltamivir is sold under the brand name Tamiflu.

P

Pandemic – an epidemic occurring worldwide, or over a very wide area, crossing international boundaries, and usually affecting a large number of people.

Pathogen - any organism capable of producing disease.

Pathogenicity – the power of an organism to produce disease.

Personal protective equipment – attire used to protect workers against airborne or droplet transmission of an organism and against exposure to blood and body fluids. PPE generally includes masks, eye goggles, face shields, gloves, gowns and foot-covers.

Pneumonia – an inflammation of the lungs caused by infection.

Primary Care – the first level of care and usually the first point of contact that people have with the health care system. Primary care involves the provision of integrated, accessible health care services by clinicians who are responsible for addressing a large majority of personal health care needs, developing a sustained partnership with patients and practicing in the context of family and community. It includes advice on health promotion and disease prevention, assessments of one's health, diagnosis and treatment of episodic and chronic conditions and supportive and rehabilitative care.

Priority Group – the people most at risk for influenza or those who could spread influenza to those at the greatest risk.

Prophylaxis – prevention of or protective treatment of disease.

Psychosocial supports – outlines the processes specifically designed to prevent or mitigate the development of post-traumatic stress among individuals.

Public health measures – non-medical interventions used to reduce the spread of the influenza virus during a pandemic.

Q

Quarantine – restriction of the activities of well persons or animals who have been exposed to a case of communicable disease, during its period of communicability, in order to prevent transmission of that disease during the incubation period if infection should occur.

R

Respiratory etiquette - simple tips to keep respiratory infections from spreading such as covering your nose and mouth every time you sneeze or cough; using a tissue when you blow your nose; putting used tissues in the trash; and washing your hands frequently, especially if you or someone you are close to is sick.

S

Screening - checking for disease when there are no symptoms.

Sentinel surveillance - surveillance based on selected population samples chosen to represent the relevant experience of particular groups.

Skill set inventory – a record of the skills of all employees and of the skills needed to provide the critical services of the organization. The skill set inventory enables emergency planners to identify transferable skills that would allow an employee to be transferred from one task, job or workplace to another without extensive training or supervising requirements.

Social distancing – a way to reduce the risk of exposure to an organism, such as the the influenza virus, by reducing or avoiding contact with other people as much as possible.

Stockpile – reserve; goods saved for future use or a special purpose.

Strain - a specific genetic variant of an organism.

Sub-clinical infection – the presence of an infection without recognizable signs or symptoms. Of importance because an individual may appear well although infected and thus be capable of spreading the infection to others.

Surveillance – an on-going, systematic method for continuous monitoring of diseases in a population, in order to detect changes in disease patterns and implement prevention and/or control measures in a timely fashion.

Susceptible - a person or animal not possessing sufficient resistance against a particular pathogenic agent to prevent contracting infection or disease when exposed to the agent.
Symptoms – any perceptible change in the body's normal function, appearance or sensation which is experienced by the patient and indicates a disease process.

T

Tamiflu – the name under which oseltamivir is marketed in Canada and the United States.

Transmission – any mechanism by which an infectious agent is spread from a source of infection to other persons or animals.

Triage – a system whereby patients or a group of casualties are sorted according to the seriousness of their illness or injuries, in order to set treatment priorities. In emergency situations, triage is designed to maximize the number of survivors.

V

Vaccination – the act of administering a vaccine

Vaccine – a dead or weakened form of an infectious organism that is injected into the body to stimulate an immune response, without causing disease, and thereby protect against subsequent infection by that organism.

Virulence – the level of pathogenicity of an infectious agent, indicated by death rates among those infected or the ability of the agent to invade and damage tissues of the host.
Virus – a group of infectious agents characterized by their inability to reproduce outside of a living host cell. Viruses may subvert the host cells' normal functions, causing the cell to behave in a manner determined by the virus.