



**Canadian
Manufacturers &
Exporters**

I N F L U E N Z A P A N D E M I C :

Continuity Planning Guide for Canadian Business

March 2006

**Canadian Manufacturers & Exporters
Run by Business, For Your Business**

Disclaimer

Canadian Manufacturers & Exporters (CME) has prepared this guide to promote best practices in planning for a possible influenza pandemic. The information is current as of the date of publication. However, further work is being undertaken in this area, and consequently changes, deletions, additions, or other amendments may be made to this information without notice. Users should check for more up-to-date information on CME's web site (www.cme-mec.ca) and other websites listed in this document.

The information in this document is not intended to cover every situation. Details which may be relevant to a user's particular circumstance may have been omitted. Users are advised to seek professional advice before applying any information contained in this document to their own particular circumstances. Users should always obtain appropriate professional advice on the medical issues involved.

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Canadian Manufacturers & Exporters (CME) is Canada's largest trade and industry association. Its mandate is to promote the competitiveness of Canadian manufacturers and enable the success of Canadian businesses in world markets. CME's membership is drawn from all sectors of Canada's manufacturing and exporting community, and from all provinces and territories. Over 85 percent of CME's members are small- and medium-sized enterprises. The association also represents Canada's leading global enterprises. Together, CME's members account for an estimated 75 percent of total manufacturing production in Canada and 90 percent of Canadian exports. For more information, or to become a member, call 1-800-268-9684 or visit www.cme-mec.ca.

1. Introduction

This guide is designed to help businesses minimize the risk that an influenza pandemic poses to the health and safety of employees, the continuity of business operations, and their bottom line. It is intended to provide all businesses in Canada with the basic information they require in preparing a continuity plan to mitigate the potential effects of a pandemic.

In response to the threat posed by the continuing spread of the H5N1 virus (avian influenza or 'bird flu'), the World Health Organization (WHO) has recommended that all countries undertake urgent action to prepare. While there is no way to predict either exactly when the next pandemic might occur or the severity of the impact, the WHO has stated that the risk of the H5N1 virus developing into the next human pandemic influenza is immediate and very real.

In January 2006, the avian flu virus spread west from Southeast Asia to Turkey, claiming the first human cases and deaths outside of Southeast Asia and China. In February 2006, the virus reached Africa and the Caspian Sea. Experts warn that no matter how prepared Canada is, we will not be spared from a pandemic, and that it could claim as many as 58,000 lives (*See Fast Facts, Page 3*). Once a pandemic virus emerges, it will be too late to begin planning. The virus is highly contagious and spreads quickly. There will be only a 20-to-30 day window between emergence and pandemic, while it will take four-to-five days for a patient to become symptomatic.

As with any risk that threatens the viability of business operations, continuity planning is critical. All businesses will be affected by an influenza pandemic. In addition to the threat to human health, the economic impacts of a pandemic, including absenteeism in the workplace or the downstream effects stemming from supply-chain and travel disruption, will be significant and widespread.

All businesses should take immediate steps to develop continuity plans that protect employees, minimize disruptions, and contain negative impacts on customers, the economy, and local communities. Companies that provide critical infrastructure services, such as energy, financial services, transportation, and telecommunications services, have a special responsibility to plan for continuing operations in the event of a pandemic and should plan accordingly. While a pandemic cannot be stopped, proper preparation may reduce its impact.

This guide provides need-to-know information that will assist all businesses in Canada in preparing business continuity plans. To that end, the guide contains:

- A background summary of the potential impacts of an influenza pandemic on business;
- An overview of the human resource issues involved; and,
- The critical elements that should be incorporated into business continuity strategies for managing the impact of an influenza pandemic, including how to:

- Maintain essential activities; and,
- Contain/minimize the spread of infection in the workplace.

In addition:

- Appendix 1 provides a comprehensive list of Federal, Provincial and International contacts where businesses can find more information about pandemic influenza and emergency preparedness measures;
- Appendix 2 provides a more detailed background on the nature of an influenza pandemic, and briefly describes the Government of Canada's strategy in preparing for, and managing, a future pandemic;
- Appendix 3 outlines the standard planning assumptions that should be taken into account in pandemic management;
- Appendix 4 sets out key elements of an organization-specific business continuity plan for an influenza pandemic;
- Appendix 5 provides a sample business continuity contact list for pandemic influenza; and,
- Appendix 6 describes an actual case of continuity planning in the form of a brief overview of Alcan's crisis management plan for pandemic influenza.

The information on business continuity planning for a pandemic is necessarily generic, and will need to be adapted to meet the circumstances of each business.

Primary sources of information for this guidebook include Public Safety and Emergency Preparedness Canada (PSEPC)¹, Health Canada², the WHO³, Human Resources and Skills Development Canada (HRSDC)⁴, the Government of New Zealand's *Business Continuity Planning Guide*⁵, the BC Ministry of Health⁶, Vancouver Coastal Health's Regional Pandemic Influenza Response Plan⁷, the Virginia Department of Health, the U.S. government's pandemic flu site⁸, the U.S. Center for Disease Control and Prevention (CDC)⁹, the Canadian Provincial and Territorial Emergency Management Offices¹⁰.

Refer to Appendix 2b for a list of acronyms contained in this guide.

¹ <http://www.psepc-sppcc.gc.ca/prg/em/gds/bcp-en.asp>

² http://www.hc-sc.gc.ca/iyh-vsv/diseases-maladies/avian-aviare_e.html

³ http://www.who.int/csr/disease/avian_influenza/en/index.html

⁴ www.hrsdc.gc.ca

⁵ <http://www.moh.govt.nz/pandemicinfluenza>; http://www.med.govt.nz/irdev/econ_dev/pandemic-planning/business-continuity/planning-guide/planning-guide.pdf

⁶ http://www.gov.bc.ca/bvprd/bc/channel.do?action=ministry&channelID=-8387&navId=NAV_ID_province

⁷ <http://www.vch.ca/public/communicable/pandemic.htm>

⁸ <http://www.PandemicFlu.gov>

⁹ <http://www.cdc.gov/business>

¹⁰ http://209.217.125.7/ep/contact_e.asp

2. Context

2.1 Pandemic Characteristics and Estimated Impact on Canadians

Influenza viruses periodically cause worldwide epidemics, or pandemics, with high rates of illness and death. A pandemic can occur at any time, with the potential to cause serious illness, death and colossal social and economic disruption throughout the world. Experts agree that future influenza pandemics are inevitable, but the timing of the next pandemic cannot be predicted. Since there may be little warning, continuity planning in advance is required to contain the potentially devastating effects of a pandemic.

Fast Facts:

- Pandemic influenza, or flu, is a global outbreak of disease that occurs when a new influenza A virus appears in humans, causes serious illness and then spreads easily from person to person.
- Seasonal flu is a viral infection of the lungs that appears each year between November and March.
- About 8,000 Canadians die each year from seasonal flu. Health Canada estimates that a pandemic flu could claim 11,000 - 58,000 lives.
- Experts agree: it is not a question of if, but when the next flu pandemic will strike.
- An influenza pandemic could last for a year or more, infecting up to one-third of the population of Canada.
- Despite all preparedness efforts, Canada will not be spared from a flu pandemic.
- All businesses, hospitals and government agencies will feel the effects of a pandemic.
- 15 to 35 percent of your workforce may be ill at any one time.
- Unlike other disasters, a flu pandemic will touch everyone in every part of the country, and every part of the world. Moving operations to another location is not likely to be a viable option.
- A flu pandemic could cost the Canadian economy billions of dollars in lost productivity and medical expenses.
- During a pandemic, it will not be business as usual.

Historic evidence suggests that pandemics have occurred three to four times per century. In the last century there were three influenza pandemics (“Spanish flu” in 1918–19; “Asian flu” in 1957–58 and “Hong Kong flu” in 1968–69), separated by intervals of 11 to

44 years. The worst, in 1918–19, killed an estimated 30,000 to 50,000 people in Canada and 20 to 40 million people worldwide. During each of the last three pandemics, the greatest increase in death rates occurred among persons less than 60 years of age; in 1918–19, the greatest number of deaths occurred in those 20 to 40 years of age.

In the event of a pandemic influenza, Health Canada estimates that 4.5 to 10.6 million Canadians would become clinically ill such that they would be unable to attend work or other activities for at least half a day. This proportion, representing 15% to 35% of the population, does not include individuals who contract the virus and feel ill, but continue their usual activities. In addition, it is estimated that between 2.1 and 5.0 million people would require outpatient care, between 34,000 and 138,000 people would require hospitalization, and between 11,000 and 58,000 people would die in Canada during an influenza pandemic.¹¹

A pandemic is not like a physical disaster. A pandemic has unique characteristics when compared with a more “typical” disaster:

- ***Widespread impact:***
The impact of a pandemic would be widespread, even global in extent, not localized to a single area. Therefore there may be little outside assistance. Many business continuity plans (BCPs) assume some part of an organization is unaffected and can take up the required capacity. That is not likely to be possible in the event of a pandemic.
- ***Not a physical disaster:***
A pandemic is not a physical disaster. It has some unique characteristics that require measures to limit social contact such as restriction of movement, quarantine, and closure of public gatherings.
- ***Duration:***
A pandemic would not be a short, sharp event leading immediately to commencement of a recovery phase. Many BCPs assume the event is short/sharp and that recovery can start immediately.
- ***Notice:***
Based on the last two pandemics, it is estimated that the next pandemic virus will be present in Canada within three months after it emerges in another part of the world, but it is, in fact, likely to occur much sooner due to increases in the volume and speed of global air travel.

Upon arrival, the virus will spread across Canada with great speed (In 1918, returning soldiers with influenza traveling on trains carried the virus from Quebec to Vancouver in only a few weeks). The first peak of illness in Canada is likely to occur within two to four months after the virus arrives in Canada. The first peak in mortality is expected one month after the peak in illness.

¹¹ These numbers are estimates and do not take into account the differences in the health care systems, practice patterns and health care seeking behaviour across Canada, nonetheless, they provide a picture of the magnitude and potential impact of the next influenza pandemic.

When pandemic influenza appears in Canada it will probably be some weeks before the full impact on the workforce will be felt, although there may be some early impacts resulting from closures of schools and similar containment measures.

- **Primary effect is on staffing levels:**

Unlike natural disasters, where any disruption to business service provision is likely to be hardware-related, disruption to business operations in the event of a pandemic is anticipated to be mainly human-resource oriented. Businesses should plan for up to 50 percent staff absences for periods of about two weeks at the height of a severe pandemic wave, and lower levels of staff absence for a few weeks either side of the peak. Overall a pandemic wave may last about eight weeks.

In addition, it has been observed that an influenza pandemic usually spreads in two or more waves, either in the same year or in successive influenza seasons. A second wave may occur within three to nine months of the initial outbreak wave and may cause more serious illnesses and deaths than the first. In any locality, the length of each wave of illness is likely to be six to eight weeks.

Staff absences can be expected for many reasons:

- Illness/incapacity (suspected/actual/post-infectious);
- Some employees may need to stay at home to care for the ill;
- People may feel safer at home (e.g. to keep out of crowded places such as public transport);
- Some people may be fulfilling other voluntary roles in the community; and
- Others may need to stay at home to look after school-aged children (as schools are likely to be closed).

A pandemic may have other impacts on businesses, for example:

- The provision of essential services like information, telecommunications, and financial services, energy supply, and logistics may be disrupted;
- Customer orders may be cancelled or may not be able to be filled;
- Supplies of materials needed for ongoing business activity may be disrupted. Further problems can be expected if goods are imported by air or land over the Canada-U.S. border;
- The availability of services from sub-contractors may be affected (this may affect maintenance of key equipment, and is an area that merits close planning attention); and,
- Demand for business services may be affected – demand for some services may increase (internet access is a possible example); while demand for others may fall (e.g. certain types of travel activity).

The Bank of Montreal (BMO Nesbitt Burns), indicates that, depending on the scenario, pandemic influenza could have serious negative impacts on the Canadian economy and significantly impair the ability to conduct business and commercial activities. Their report also points out that:

- Public meetings are likely to be cancelled by the authorities or because of low attendance.
- Canada's trade status may be compromised.
- Impacts on critical infrastructure impacts are likely to be moderate to serious.
- The tourism industry would be badly affected.

Sectors that depend on heavy foot traffic -- retail, leisure, gaming, lodging, and restaurant industries -- could especially take a hit if the avian flu turns into a pandemic. During the SARS outbreak, people avoided densely populated public areas and any place where people congregated in confined spaces. Consumers are likely to cut down on travel and leisure-related expenditures, including transportation, hotels, cruises, entertainment, and visits to theme parks and other public venues.

2.2 Estimated Economic Impact of a Pandemic

Just as it is difficult to forecast the severity of a pandemic, it is hard to predict its economic effects, even if the outbreak's scope and severity are known. Based on past influenza pandemics and the SARS outbreak, the most significant impacts would be a sharp decline in demand as people avoided shopping malls, restaurants, and other public spaces, and a reduction in the labour supply as workers become ill, stay home out of fear, or take care of others who are sick.

The general slowdown in economic activity would reduce gross domestic product (GDP). Business and consumer confidence would be severely eroded. The supply of labour would be restricted (owing to illness, mortality, and absenteeism spurred by fear of contracting the disease). Supply chains would be strained as transportation systems are disrupted. And, arrears and default rates on consumer and business debt would rise. The most important long-term impact of a pandemic is the reduction that would persist in the population and in the labor force after overall demand in the economy returns to normal.

The Congressional Budget Office (CBO) in the United States recently attempted to estimate the economic impacts of a pandemic on the American economy. The estimate is based on three strands of analysis:

- A rough estimate of the supply-side effects of a large proportion of the labor force becoming ill;
- A very rough estimate of a pandemic's impact on demand in individual industries; and,
- A comparison with the impact of the SARS epidemic in Southeast Asia and Canada.

The CBO, in assessing the supply-side impact of a pandemic, estimates that 25-30% of the non-farm business workforce would be infected with the disease, resulting in one to three weeks of missed work and a one to 2.5 percent fatality rate. Under these assumptions, it concludes that GDP would be more than 3 percent lower in the year in which the pandemic occurred than it would have been had the pandemic not taken place.

The following table summarizes the estimated impacts of an influenza pandemic on demand and by industry.

Table 1: CBO Estimates of Economic Impact

Assumed Declines in Demand, by Industry, in the Event of an Avian Flu Pandemic		
(Percent)	Severe Scenario	Mild Scenario
Private Industries		
Agriculture	10	3
Mining	10	3
Utilities	0	0
Construction	10	3
Manufacturing	10	3
Wholesale trade	10	3
Retail trade	10	3
Transportation and warehousing		
Air	67	17
Rail	67	17
Transit	67	17
Information (Published, broadcast)	0	0
Finance	0	0
Professional and business services	0	0
Education/health care		
Education	0	0
Health care	-15	-4
Arts/entertainment/accommodation/food		
Arts and recreation	80	20
Accommodation	80	20
Food service	80	20
Other services except government	5	1
Government		
Federal	0	0
State and local	0	0

Source: Congressional Budget Office.

Note: The severe scenario describes a pandemic that is similar to the 1918-1919 Spanish flu outbreak. It incorporates the assumption that a particularly virulent strain of influenza infects roughly 90 million people in the United States and kills more than 2 million of them. The mild scenario describes a pandemic that resembles the outbreaks of 1957 to 1958 and 1968 to 1969. It incorporates the assumption that 75 million people become infected and about 100,000 of them die from the illness or complications.

(Source: The Congress of the United States, Congressional Budget Office, 'A Potential Influenza Pandemic: Possible Macroeconomic Effects and Policy Issues')

The estimated demand-side effects add up to about 2 percent of GDP. Combining them with the supply-side impacts implies about a 5 percent reduction in GDP in the year of the pandemic.

While these predictions are based on very rough estimates, they do provide a general picture of the potential economic impact of a pandemic, which may be useful in conducting an economic impact analysis as part of your business continuity plan.

3. Business Continuity Planning for a Pandemic

3.1 What is Business Continuity Planning?

Critical services or products are those that must be delivered to ensure survival, avoid causing injury, and meet legal or other obligations of an organization. Business Continuity Planning is a proactive planning process that ensures critical services or products are delivered during a disruption.

A Business Continuity Plan (BCP) includes:

- Plans, measures and arrangements to ensure the continuous delivery of critical services and products, which permits the organization to recover its facility, data and assets.
- Identification of necessary resources to support business continuity, including personnel, information, equipment, financial allocations, legal counsel, infrastructure protection and accommodations.

Having a BCP enhances an organization's image with employees, shareholders and customers by demonstrating a proactive attitude. Additional benefits include improvement in overall organizational efficiency and identifying the relationship of assets and human and financial resources with respect to critical services and deliverables.

Why is business continuity planning important?

A continuity plan should be an essential element of any business' strategy or operating procedures. In recent years, the impacts that Y2K, 9/11, SARS and the power outage in Ontario, the ice storm in central Canada and other natural disasters have had on Canadian businesses only reinforces the need for continuity plans. Current concern about the risk of an avian flu pandemic further emphasizes the point that continuity planning must take the specific case of highly infectious diseases into account.

Canada's business community is at risk. While many larger companies and essential services have developed contingency plans, most smaller and mid-sized firms have not. This lack of preparedness not only threatens the viability of a large sector of the Canadian economy, but, as in the case of manufacturing, also jeopardizes the delivery of critical goods that depends on complex supply chain systems.

Creating and maintaining a BCP helps ensure that an institution has the resources and information needed to deal with a pandemic.

How is a Business Continuity Plan Different from a Business Resumption Plan?

A Business Resumption Plan describes how to resume business after a disruption. A Disaster Recovery Plan deals with recovering Information Technology (IT) assets after a disastrous interruption. Both imply a stoppage in critical operations and are reactive.

Recognizing that some services or products have to be continuously delivered without interruption, there has been a shift from Business Resumption Planning to Business Continuity Planning.

A business continuity plan enables critical services or products to be continually delivered to clients. Instead of focusing on resuming a business after critical operations have ceased, or recovering after a pandemic occurs, a Business Continuity Plan endeavors to ensure that critical operations continue to be available.

When critical services and products cannot be delivered, consequences can be severe. All organizations are at risk and face potential disaster if unprepared. A Business Continuity Plan is a tool that allows institutions not only to mitigate risk, but also continuously deliver products and services despite disruption.

(Source: Public Safety and Emergency Preparedness Canada

<http://www.ocipep.gc.ca/prg/em/gds/bcp-en.asp>.)

© Public Safety and Emergency Preparedness Canada

3.2 Corporate Preparedness

The Public Health Agency of Canada estimates that during the pandemic 15 to 35 percent of the population will become sick and be unable to go to school or work. This does not include those that may contract the virus and feel ill, but continue their usual activities. The most significant impact on the private sector is likely to be disruption due to employee absenteeism. Employees will be off work due to sickness or having to stay home and care for sick family members. Schools may also be closed forcing parents to stay home and care for children.

Personal hygiene (hand washing, covering nose and mouth when coughing or sneezing), environmental cleaning (rigorous cleaning of all hard surfaces in the workplace), social distancing (avoiding crowds) and possibly screening workers to exclude ill persons, are all strategies aimed at keeping the workforce healthy.

In addition, advance planning by business owners and managers will be critical to protecting employees' health, limiting negative economic impacts, and ensuring the continued delivery of essential services like food, medicine, water and power. Government alone will not be able to provide answers to all of the issues facing Canadians in the event of a pandemic. It will be up to every business to prepare its own continuity plan.

So where do you start? First, ask yourself these questions:

1. How will you maintain your business operations when 15 to 35 percent of the workforce falls ill and up to 50 percent of your workforce may be absent at one time?
2. How can you adapt your existing continuity of operations plans to take this kind of human resources impact into account?
3. How will you cope when the other businesses and suppliers you rely on experience the same absentee rates?
4. How will you adapt to disruptions in the supply chain for the raw materials, goods, and services you require, and how will you get your product to the consumer if your distribution network is hit with high absentee rates?
5. How can existing return-to-work and travel policies be adapted to control the spread of this virus among employees?
6. How will you limit the economic impact of a flu pandemic on your business?

Continuity planning for a pandemic should include:

- ✓ Identification of essential business activities (and the core people and skills to keep them running), and measures to ensure that these are backed-up with alternative arrangements;

- ✓ Mitigation of business/economic disruptions, including possible shortages of supplies; and
- ✓ Minimizing illness among employees, suppliers, and customers.

3.2a Summary Checklist for Business Pandemic Continuity Planning

Planning for pandemic influenza is essential to ensuring the continuity of business operations. The following checklist identifies specific steps that all businesses can undertake now to prepare for a pandemic. Many are also applicable to other emergency situations.

The following information is necessarily generic, and will need to be adapted to meet the circumstances and needs of different businesses and industries. Small and medium sized businesses may not have the resources to follow each of these suggested activities; however, it is recommended that every business, regardless of size, develop at least a basic plan for business pandemic influenza, incorporating each of the main sections listed below.

Plan for the impact of a pandemic on your business:

- ✓ **Identify a pandemic coordinator** and/or team with defined roles and responsibilities for preparedness and response planning. The planning process should include input from employees and labour representatives (Section 3.3.1).
- ✓ **Identify essential employees and other critical inputs** (e.g. raw materials, suppliers, sub-contractor services/products, and logistics) required to maintain business operations by location and function during a pandemic (Section 3.3.2).
- ✓ **Train and prepare an ancillary workforce** (e.g. contractors, employees in other job titles/descriptions, retirees) (Section 3.3.3).
- ✓ **Develop and plan for scenarios** likely to result in an increase or decrease in demand for your products and/or services during a pandemic (Section 3.3.4).
- ✓ **Determine the potential impact of a pandemic on company business financials** using multiple possible scenarios that affect different product lines and/or business sites (3.3.5).
- ✓ **Determine the potential impact of a pandemic on business-related domestic and international travel** (e.g. quarantines, border closures) (3.3.6).
- ✓ **Find up-to-date, reliable pandemic information** from community public health, emergency management, and other sources and make sustainable links (Appendix 1).
- ✓ **Establish an emergency communications plan and revise periodically.** This plan includes identification of key contacts (with back-ups) and chain of communications (including suppliers and customers) (Appendix 5).
- ✓ **Implement an exercise/drill to test your plan**, and revise periodically.

Plan for the impact of a pandemic on your employees and customers:

- ✓ **Forecast and allow for employee absences** during a pandemic due to factors such as personal illness, family member illness, community containment measures and quarantines, school and/or business closures, and public transportation closures (Sections 3.3.3).
- ✓ **Implement guidelines to modify the frequency and type of face-to-face contact** (e.g. hand-shaking, seating in meetings, office layout, shared workstations) among employees and between employees and customers (Section 3.5.4).
- ✓ **Encourage and track annual influenza vaccination** for employees (optional).
- ✓ **Evaluate employee access to and availability of healthcare services** during a pandemic, and improve services as needed (Appendix 1 – *List of Health Authorities*).
- ✓ **Evaluate employee access to and availability of mental health and social services** during a pandemic, including corporate, community, and faith-based resources, and improve services as needed (if applicable).
- ✓ **Identify employees and key customers with special needs**, and incorporate the requirements of such persons into your preparedness plan (if applicable).

Establish policies to be implemented during a pandemic:

- ✓ **Establish Plan Activation Guidelines** (Section 3.4)
- ✓ **Establish policies for employee compensation and sick-leave absences** unique to a pandemic, including policies on when a previously ill person is no longer infectious and can return to work after illness (Section 3.5).
- ✓ **Establish policies for flexible worksite** (e.g. telecommuting) and flexible work hours (e.g. staggered shifts) (Section 3.8).
- ✓ **Establish policies for preventing the spread of influenza at the worksite** (e.g. promoting respiratory hygiene/cough etiquette, and prompt exclusion of people with influenza symptoms) (Section 3.5.1 and 3.5.4, 3.5.5).
- ✓ **Establish policies for employees who have been exposed to pandemic influenza**, are suspected to be ill, or become ill at the worksite (e.g. infection control response, immediate mandatory sick leave) (Section 3.6).
- ✓ **Establish employee contact control and tracing guidelines** (Section 3.7).
- ✓ **Establish policies for restricting travel to affected geographic areas** (consider both domestic and international sites), evacuating employees working in or near an affected area when an outbreak begins, and guidance for employees returning from affected areas (Section 3.3.6).

- ✓ **Set up authorities, triggers, and procedures for activating and terminating the company's response plan**, alerting business operations (e.g. shutting down operations in affected areas), and transferring business knowledge to key employees (Section 3.4).

Allocate resources to protect your employees and customers during a pandemic:

- ✓ **Provide sufficient and accessible infection control supplies** (e.g. hand-hygiene products, tissues and receptacles for their disposal) in all business locations (Section 3.5.2).
- ✓ **Enhance communications and information technology infrastructures** as needed to support employee telecommuting and remote customer access (Section 3.8).
- ✓ **Ensure availability of medical consultation** and advice for emergency response (Appendix 1 and Section 3.3.1 – *Medical Advisor*).

Communicate to and educate your employees:

- ✓ **Develop and disseminate programs and materials covering pandemic fundamentals** (e.g. signs and symptoms of influenza, mode of transmission), personal and family protection and response strategies (e.g. hand hygiene, coughing/sneezing etiquette, contingency plans) (Section 3.5.2).
- ✓ **Anticipate employee fear and anxiety**, rumours and misinformation, and plan communications accordingly (Section 3.3.7 and Appendix 2 – Q&A).
- ✓ **Ensure that communications are culturally and linguistically appropriate** (if applicable).
- ✓ **Disseminate information to employees** about your pandemic preparedness and response plan (Section 3.4).
- ✓ **Provide information for the at-home care of ill employees** and family members (Consult Medical Advisor or Local Health Authority (Appendix 1) for current advice on taking care of ill patients).
- ✓ **Develop platforms (e.g. hotlines, dedicated websites) for communicating pandemic status and actions to employees**, vendors, suppliers, and customers inside and outside the worksite in a consistent and timely way, including redundancies in the emergency contact system (Section 3.8).
- ✓ **Identify community sources for timely and accurate pandemic information** (domestic and international) and resources for obtaining counter-measures (e.g. vaccines and antivirals) (Appendix 2).

Coordinate with external organizations and help your community:

- ✓ **Collaborate with insurers, health plans, and local healthcare facilities** to share your pandemic plans and understand their capabilities and plans (Appendix 1).
- ✓ **Collaborate with federal, provincial, and local public health agencies** and/or emergency responders to participate in their planning processes, share your pandemic plans, and understand their capabilities and plans (Appendix 1).
- ✓ **Communicate with local and/or provincial public health agencies** and/or emergency responders about the assets and/or services your business could contribute to the community (Appendix 1).
- ✓ **Share best practices with other businesses in your communities** to improve community response efforts (Appendix 7 – *Alcan Inc. Influenza Preparedness Plan*).

(Checklist adapted from pandemicflu.gov)

These items are addressed in further detail in the following pages.

As an example of best practice in continuity planning, this guide also provides an outline of Alcan Inc.'s Asian Influenza Preparedness Management System (Appendix 6). While Alcan's plan has been developed for a global business enterprise, it contains much in the way of best practices that can be adopted by businesses of any size.

3.3 Critical Elements of a Continuity Plan

3.3.1 Influenza Manager and/or Committee

In preparing for a potential pandemic, Alcan has created a special committee composed of medical officers, corporate security and corporate communications personnel responsible for assessing the potential threat caused by an influenza pandemic and to prepare Alcan for such an event (*see Appendix for full Alcan pandemic plan*).

While it is not always possible for all companies to form a committee to address the risk of an influenza pandemic, it is important for every business to identify one or more people within the organization to be responsible for workplace health and safety and for developing a Pandemic Influenza Preparedness Plan including measures to ensure business continuity and effective communications.

Some of the tasks the 'Influenza Manager(s)' should perform include:

- ✓ Setting up a system to monitor staff who are ill or suspected to be ill in the event of a pandemic, including contacting staff who are unexpectedly absent from work. Have "contact" issues been addressed? Is someone able to care for them?
- ✓ Setting up a process to facilitate/encourage the return of staff to work once they are better or at the end of a quarantine period; and
- ✓ Ensuring that the workplace has adequate supplies of medical supplies and hand hygiene products, cleaning supplies and masks for people who become ill at work. *It may be difficult to purchase such products once a pandemic begins.*

Medical Advisor

Some larger businesses and industrial establishments have medical practitioners, advisors or physicians on site or on payroll. Smaller businesses may not currently staff medical advisors.

In preparing your business continuity plan, it is advisable that you ensure access to a medical practitioner or advisor for assistance and advice in the event of a pandemic. If your company already has medical staff on site, they should be made aware of the nature of the disease, how it is transmitted, its symptoms and health care precautions available and appropriate. If your current practitioner is unable to fulfill the desired role for your organization, they should recommend another medical practitioner for that function.

Smaller businesses should consider contracting out the services of a local medical physician for this exercise. It is advisable that all businesses contact their local Health Canada office (http://www.hc-sc.gc.ca/home-accueil/contact/branch_sub_e.html) to obtain more information on available options.

3.3.2 Maintaining Essential Business Operations

In the event of a pandemic, it is important that core people and core skills are available to keep essential parts of your business operating. A Business Impact Analysis underpins the Business Continuity Planning process.

In planning for the impact of a pandemic on your business (Business Impact Analysis) you will want to identify essential employees and other critical inputs (e.g. raw materials, suppliers, sub-contractor services/products, and logistics) required to maintain business operations by location and function during a pandemic.

Identification of Critical Operations and People

Issues you should consider include:

- ✓ What are the “essential” parts of the business?
- ✓ Who are the core people required to keep the essential parts of the business running?
- ✓ What are the core skills required to keep the business running?
- ✓ Are there sufficient back-ups for people and skills if there is a high level of absence?
- ✓ Are there other resources (e.g. volunteers, retirees) that could be drawn on if necessary?
- ✓ Is it possible to co-ordinate or operate your business through a “virtual war-room” – that is, remotely, by using telephone and email?
- ✓ Who are the people required to manage your pandemic contingency plan?
- ✓ Do you have systems that rely on periodic physical intervention by key individuals, to keep them going? How long would the system last without attention?

Once the core people and skills are identified, ensure that they are aware of their position and how they will be managed in the event of a pandemic. Consider strategies for minimizing the possibility that they become ill with influenza: e.g. working from home even in very early stages of a pandemic, or other social distancing measures.

If working from home is not a well-established practice in your organization, you may wish to encourage staff to address computer connection or technological issues and enable this option. You may wish to have non-essential staff “stand down” (with appropriate pay arrangements) in the full pandemic phase to help minimize the number of staff who may be exposed to the influenza virus.

In the event of a pandemic, employees have the option of leaving their jobs. They also have the right to refuse to perform work if they believe it is likely to lead to their suffering serious harm. However, their belief must be based on reasonable grounds, and they must have attempted to resolve the matter with their employer before they can continue to refuse.

The right to refuse unsafe work does not apply unless the understood risks of the workplace have materially increased. To avoid such situations, it is best to have had discussions with staff prior to the occurrence of a pandemic.

3.3.3 Business Planning for Absences

Unlike natural disasters, where any disruption to business service provision is likely to be hardware-related, disruption to business operation in the event of a pandemic is anticipated to be mainly human-resource oriented. Individual employers must consider their workforces and their particular circumstances. However, most should plan for up to 50% staff absences for periods of about two weeks at the height of a severe pandemic wave, and lower levels of staff absence for a few weeks either side of the peak. Overall, a pandemic wave may last about 8 weeks.

Standard planning assumptions:

- The impact of a pandemic would likely be widespread, even global, and not localized to a single area. Therefore, little outside assistance may be available.
- Businesses are likely to be confronted with up to 50 percent absenteeism, as many workers become ill, stay home to take care of children or family members, or refuse to go to work, especially in heavily populated office towers.
- 15 to 35 percent of the workforce is likely to become ill at some time during the 8 weeks of a pandemic wave.
- The workplace attack wave follows a pattern similar to that expected in the general population.
- Every person who becomes ill is likely to miss seven days of work.
- There is a 100 percent additional absence rate – that is, for every person in the workforce who gets ill, another does not come to work because of the need to look after a spouse or children, or a disinclination to travel or work.
- The additional absences follow the workplace attack pattern.
- 2 percent of workers who become ill are likely to die.

(See Appendix 3 for additional planning assumptions)

Note that no estimate is made for people doing extra shifts or longer shifts, or for any recruitment into the workforce during the pandemic.

Issues you may wish to consider include:

- ✓ What are critical staff numbers and skills required to keep essential sectors of the business running – at what level does business stop?
- ✓ What arrangements need to be made to minimize risk to staff?
- ✓ Who should make the decision to shut activity down when absence rates threaten safe business continuity?
- ✓ Could some, or all, of your business operations shift to having most staff work from home with little warning?

An influenza pandemic may affect regions of Canada and the world differently in terms of timing, severity and duration. Some regions may be hit earlier, longer or harder.

Businesses with regional offices may need to consider rotating service delivery from hard hit areas to influenza-free areas, or areas that have been declared to be in a post-pandemic period.

Restrictions on movement of people from region to region may be imposed, and rotation of staff may therefore be difficult. Businesses with overseas offices, or which use services outsourced from overseas (e.g. call centres), may be disproportionately affected. Not all countries have the means to cope with a pandemic. Employees and staff contracted outside of Canada may have increased rates of illness and absence.

You may want to consider training and preparing an ancillary workforce (e.g. contractors, employees in other job titles/descriptions, retirees). This might include training your current employees in several areas of the business or ensuring you have a pool of available workers outside the company on call if need arises.

3.3.4 Supply Chain Disruption and Border Closures

Pandemic planning should consider the need for stockpiling of essential supplies. Discuss with key suppliers a plan for regular shipments in the event of shortages or disruptions in transportation systems.

Shortages may occur because of disruptions in transportation systems or inability of suppliers to meet demands because of their own staff shortages. Canadian supplies travel long distances by truck, train and aircraft and are vulnerable to any disruption. Loss of up to 30 percent of workers/drivers and other transportation staff may affect both the production and delivery of needed supplies.

During a pandemic there are likely to be restrictions at ports and airports. Persons leaving an area affected by the pandemic will most likely be screened for signs and symptoms of influenza.

Persons who are ill will be asked to defer travel so as not to spread influenza to other areas that are pandemic free. Supply lines may also be affected by self-imposed travel restrictions, with truckers/transporters unwilling to travel through or to infected areas.

Difficulties at border crossings may substantially affect supply lines. Consideration should be given to purchase of products made in Canada/locally to avoid potential supply problems due to border crossing restrictions implemented at the time of the pandemic.

International air movements may be disrupted in a pandemic, and this may affect the delivery of imported goods, especially if they normally arrive in freight-holds of passenger aircraft.

Emergency funding can be critical immediately following an emergency like a pandemic. Consider the need for pre-approved purchase requisitions and whether special funding authorities may be necessary.

Administration and Logistics

Maintain complete and accurate records at all times to ensure a more efficient emergency response and recovery. Certain records may also be required by regulation or by your insurance carriers. They may prove invaluable in the case of legal action after an incident.

All companies, large or small, should develop plans for ensuring that the impact of shortages of critical supplies and resources is minimized. Before a pandemic, logistics precautions may entail:

- Acquiring equipment.
- Stockpiling supplies.
- Designating emergency facilities.
- Establishing training facilities.
- Establishing mutual aid agreements.

- Preparing a resource inventory.

During an emergency, logistics plans may entail:

- Providing utility maps to emergency responders.
- Providing material safety data sheets to employees.
- Moving backup equipment in place.
- Repairing parts.
- Arranging for medical support, food and transportation.
- Arranging for shelter facilities.
- Providing for backup power.
- Providing for backup communications.

Alternative Transportation Routes

Ensure that your distributors, suppliers, carriers and drivers are aware of alternate routes to your facility and those of your customers. For international shipments, consideration should be given to alternate border crossings in the event of a closure or severe wait times.

A list of border crossings and corresponding wait times is available online at:

<http://www.cbsa-asfc.gc.ca/general/times/menu-e.html>

Planning with Customers

Businesses may suffer from loss of economic revenue and sales due to a reduction in customer numbers. The general public will be advised to avoid crowded situations and to stay home as much as possible.

Businesses will have to alter usual practices in order to meet the needs of their customers during a pandemic. Possibilities of altered practices are:

Business-to-Consumer:

- Extending business hours to accommodate customers wanting service at off peak hours.
- Taking orders over phone/fax for pickup or delivery to minimize the time people are in contact with others.
- Arranging for services to be provided via phone, Internet, fax or mail.

Gain customer confidence by maintaining a healthy workforce and workplace. Screen employees for influenza-like illness and maintain a clean work environment with scrupulous cleaning and hygiene.

Business-to-Business

Ensure that you not only have identified alternate suppliers and contractors, but, as a supplier, you have also given consideration to your customers. Your customers, especially international customers, should be made aware of your BCP and given instructions on how to minimize the impact of a pandemic influenza on their supply chain. This might include identification of alternate suppliers or contractors or alternate transportation routes.

3.3.5 Financial Analysis

An essential part of any business impact analysis is determining the potential effects of a pandemic on company business financials using multiple possible scenarios that affect different product lines and/or production sites. Depending on the sector and severity of the pandemic, the decline in demand could range from 3 per cent (mild scenario, manufacturing industry) to 67 percent (severe scenario, transportation and warehousing industry). Conversely, demand in the health sector will increase.

The *financial analysis* overlays location-specific financial data to loss scenarios, estimating the profitability at risk through lost revenue and the additional costs incurred to mitigate the potential loss of revenue. This allows your business to get the full picture of your true financial exposure.

Financial impact analysis should include:

- ✓ Estimates of the impact of decreases in consumer demand (per cent depends on sector and severity of pandemic);
- ✓ Estimates of supply shortages (plan on the assumption that shortages will take place);
- ✓ Estimates of the cost of employee work days lost (15 – 25 percent absenteeism, 7 days/employee);
- ✓ Costs associated with stockpiling and sufficient surge capacity for shortages in supply;
- ✓ Costs associated with hygiene supplies; and,
- ✓ Costs associated with implementation of alternate communications channels in case normal communication channels become unreliable or overloaded.

See Appendix 3 for additional planning assumptions used to assess the potential impact of a pandemic on the bottom line.

3.3.6 Staff Travel and Expatriates Evacuation Plan

The Department of Foreign Affairs, Consular Division, posts appropriate travel advisories for Canadians travelling to other countries where certain risks exist including those of a pandemic. The Department also provides advice to Canadian government staff and Canadians working in countries abroad. The advice is available at <http://www.voyage.gc.ca/dest/ctry/new-en.asp>

It is possible that once efficient human-to-human transmission of H5N1 occurs certain countries may close their borders sporadically believing (rightly or wrongly) that this measure would be effective in reducing the spread of influenza. Screening (with quarantine measures) could be established at borders.

If justified by risk/benefit analysis it may be advisable to request employees to consider postponing non-essential travel outside Canada when the pandemic starts. Arrangements may also be required for employees who are stranded outside of the country because borders are closed. In addition, it may be advisable to develop an impact analysis model taking into account that many or all of your employees may be restricted from travelling or taking business trips. Communications technologies can be used to minimize the impact of quarantines or border closures.

If your staff does travel overseas for business reasons, your plan will need to include consideration of their management in the event of a pandemic. For example, on declaration of a pandemic, if any staff had recently (within the last 4-5 days) traveled to countries known to be affected by the disease, your business should:

- Advise the employee not to report for work for the duration specified by Health Canada.
- Ask them to follow instructions on the Public Health Agency of Canada's website for self-checking for influenza symptoms, which may include advice to telephone (rather than visit) their medical centre to seek advice immediately if symptoms occur. They should report their travel history to the treating doctor.
- Ask them to document all the people they have been in contact with since returning;
- Check on the staff member during his/her absence from work; and
- Set up a process for ensuring that the employee has completed the time duration and is healthy before allowing him/her to return to work.

Basic Preparedness: Expatriates Evacuation Plan

If applicable, your company should develop an Expatriates Evacuation Plan and ensure that the plan is current.

The template for this plan should outline in detail such items as communications, responsibilities, and contents of departure kits. Non-essential expatriates and expatriate families may be evacuated relatively early in a pandemic.

An international medical assistance service provider like *International SOS* (<http://www.internationalsos.com/>) can assist in the successful evacuation of expatriates.

3.3.7 Communication with Staff

It is likely there will be a high level of anxiety regarding a pandemic and this is likely to contribute to increased work absence and/or increased distress to staff. Suggested ways to manage this include:

- Communicate the possibility of a pandemic – and your organization’s preparedness to manage it – very early to staff. The influenza fact sheet, available from Health Canada’s website (http://www.hc-sc.gc.ca/iyh-vsv/diseases-maladies/flu-grippe_e.html) will be helpful for this purpose;
- Discuss with staff possible health and safety issues, potential for stand down, and leave arrangements if they are ill or need to look after those who are, or who have been “shut out” of childcare and school, etc;
- Have a comprehensive management plan in place which is clearly communicated to staff. Ensure that communications management during the pandemic is part of the plan. It will be important to have systems in place to allow your business to communicate effectively in a pandemic;
- In activating your plan, provide clear, timely and pro-active communications to staff, including how your organization is handling the situation; and
- You may wish to establish a “communications tree” so that people can keep in touch.

Knowledge Management

Key operating and emergency management information should be stored in known, accessible and shared locations.

3.4 Activation of Pandemic Continuity Plan

Health Canada will widely publicize any changes to the pandemic phases that are designed to alert government agencies to action.

***See Appendix 6 for an example of Avian Influenza Crisis Management Alert Levels established by Alcan Inc. in preparing for pandemic influenza.**

Alert levels established by Alcan correspond to the WHO phases listed below. Corporate and local activities are based on the corresponding alert level.

GREEN

Limited number of cases transmitted from sick birds to humans.

YELLOW

Recognized evidence of human to human transmission, but cases are limited to small clusters.

ORANGE

Major outbreaks in specific areas.

RED

Worldwide global epidemic (Pandemic).

The table below provides summary guidance as to how a business might proceed as different stages of a pandemic are reached.

Table 2: Suggested Private Sector Responsibilities and Actions for Business for Each Alert Period

PHASE	Private Sector Responsibilities	Suggested Actions for Business
Interpandemic and Pandemic Alert Periods	<p>Establish plans and procedures to support Health Authority* initiatives to prepare for a pandemic.</p> <p>Develop a program, in conjunction with the Health Authority, to facilitate routine, annual influenza vaccinations of staff.</p> <p>Ensure that areas of responsibility essential for maintenance of your business have been backed up so that appropriate designated personnel can take over management in case of absence due to illness.</p> <p>Identify essential staff and develop contingency plans for operations under prolonged staff shortages and/or shortages of resources</p>	<p>Review business continuity plans.</p> <p>Identify essential services (including contractors), facilities/plants, other production inputs.</p> <p>Plan for up to 50 percent staff absences for periods of 2-3 weeks at the height of the pandemic, and lower levels of staff absences for a few weeks on either side of the pandemic.</p> <p>Assess core staff and skill requirement needs, and ensure essential positions are backed-up by an alternative staff member.</p> <p>Identify ways to increase "social</p>

	<p>Develop plans for procedures to address supply and personnel shortfalls.</p> <p>Arrange and facilitate a meeting with local business leaders regarding the need for mutual aid and support among businesses.</p> <p>Meet with representatives of local businesses to ensure essential businesses stay open.</p> <p>Continue to monitor appropriate information sources for updated information.</p> <p>Consider implementing a telecommuting system so more people can work from home.</p> <p>Implement a health education plan through appropriate workplace health and safety programs.</p> <p>Working with the Health Authority, ensure that self help guidelines are distributed to staff/workers.</p> <p>Consult with the Health Authority on the need to close buildings and cancel public events.</p> <p>Consult with the Health Authority on the need to control the movement of people and commodities in and out of the community.</p>	<p>distancing” in the workplace, reduce movement etc.</p> <p>Consider organizational policies to encourage the sick to stay at home; and enable staff to work from home.</p> <p>Identify ways to minimize illness among staff and customers, and consider how essential messages (e.g. basic hygiene) can be communicated to staff.</p> <p>Identify needs for Personal Protective Equipment (PPE) and cleaning equipment, and check air conditioning. Purchase additional contingency supplies if needed.</p>
<p>Pandemic Period</p>	<p>Increase public information effort designed to keep ill workers at home.</p> <p>Ensure meticulous hand hygiene and environmental cleaning.</p> <p>Cease non-essential services.</p> <p>Be prepared to make arrangements to rotate hours/days of operation, re-assignment of staff.</p>	<p>Alert staff to change in pandemic status.</p> <p>Activate staff overseas travel restrictions.</p> <p>Activate essential business continuity measures.</p> <p>Activate measures to minimize introduction and/or spread of influenza in work place (post notices; social distancing, managing ill staff members, workplace cleaning, etc.).</p>

		<p>Communicate with staff to promote confidence in the workplace.</p> <p>Activate contact tracing where staff become ill at work.</p> <p>Activate process for recovered and non-infected staff members to return to work.</p>
<p>Post-pandemic Period</p>	<p>Review, evaluate and revise your business pandemic response as necessary.</p>	<p>Manage return to business as normal.</p>

**Each region within each province has a local health authority. All regional health authorities for Canada can be found online at: <http://www.chrgonline.com/LinkReqAuthorities.asp>*

3.5 Medical Precautions and Information

This section contains preliminary and notional suggestions to control and prevent the spread of pandemic influenza in a company. Businesses are advised to follow the explicit instructions of PHAC, Health Canada and Provincial and Municipal Health Authorities with respect to the following activities.

The main strategies include;

- Restrict workplace entry of people with influenza symptoms.
- Practise good hygiene and workplace cleaning habits.
- Increase social distancing (i.e., enable telecommuting; avoid face-to-face contacts).
- Manage staff who become ill at work.
- Manage staff who travel overseas

Table 3: Summary of Influenza Protection Measures

Protection Measure	Where Applicable
Hand hygiene, cough etiquette, ventilation	Everyone, all the time
Departmental BCP Policies related to pandemic influenza	Senior Management
Social distancing	Everyone, all the time (leverage technologies)
Protective barriers and HVAC	Physical security staff. To avoid close contact with the public and maintain a clean environment
Health related equipment. Temporary surgical masks, gloves, cleaning substances	Work place health and safety committees- for distribution to all employees
Respiratory masks, eye protection, gloves, gowns, aprons	Front line health care workers in close contact with patients and other high risk areas

3.5.1 Restrict Workplace Entry of People with Influenza Symptoms

On declaration of the pandemic phase, companies should consider posting notices at all entry points advising staff and visitors not to enter if they have influenza symptoms. This notice could be communicated to all employees.

Employees should be advised not to come to work when ill or under quarantine until symptoms are resolved or the quarantine has ended. They should be directed to their family physician and/or to information materials on the websites of health service providers such as the PHAC (http://www.phac-aspc.gc.ca/new_e.html) and Health Canada.

Table 4: What is the Difference Between Influenza and a Common Cold?

SYMPTOM	INFLUENZA	COMMON COLD
Fever	Usual, sudden onset 38-40 degrees 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 after the acute illness	Sometimes, but mild
Debilitating fatigue	Usual, early onset can be severe	Rare
Nausea, vomiting, diarrhea	In children < 5 years old	Rare
Watering of the eyes	Rare	Usual
Runny, stuffy nose	Rare	Usual
Sneezing	Rare in early stages	Usual
Sore throat	Usual	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 ear-ache
Fatalities	Well recognized	Not reported
Prevention	Influenza vaccine; frequent hand-washing; cover your cough	Frequent hand-washing; cover your cough

3.5.1a Sample Influenza Notification *(Taken from the Government of New Zealand's Business Continuity Planning Guide, 2005)*

INFLUENZA NOTIFICATION

Influenza is a contagious disease. There is currently an increase in the numbers of people in New Zealand with influenza. In order to reduce the spread of influenza in this workplace, the following is required of everybody:

DO NOT COME TO WORK if you have:

- chills, shivering and a fever (temperature >38°C)
- onset of muscle aches and pains
- sore throat
- dry cough
- trouble breathing
- sneezing
- stuffy or runny nose
- tiredness.

If some of the above apply to you, please go home and wait until you have recovered before returning to work.

If you have recently arrived from overseas or returned from overseas, please ask to speak to the Influenza Manager (see below)

If you start to feel ill at work, DO NOT leave your work area

Call your Influenza Manager Ext.....

3.5.2 Personal Hygiene

Personal hygiene measures minimize influenza transmission. Communicate these to employees. They include:

- Cover nose and mouth when sneezing or coughing.
- Dispose of used tissues immediately.
- Wash hands frequently.
- Keep hands away from eyes, nose, and mouth.

Hand washing (with soap and water, alcohol-based hand rub, or antiseptic hand wash) is the single most effective measure to reduce risks of transmitting infection.

Ensure supplies of hygiene products (soap, hand towels, gloves, and masks) are available while recognizing that their supply will be reduced in pandemic influenza. Ensure the environment is cleaned regularly and in particular maintain and filter HVAC systems.

Post hygiene notices at entrances, washrooms, hand washing stations, and public areas.

Brochures, newsletters, global emails, notice boards, and payslips are some of the materials that can be used to communicate this advice.

Hand Hygiene

Hand hygiene is an important step in preventing the spread of infectious diseases, including influenza. Hand hygiene can be performed with soap and warm water or by using waterless alcohol-based hand sanitizers.

Transmission of influenza can occur by indirect contact from hands and articles freshly soiled with discharges of the nose and throat of an acutely ill individual. By frequently washing your hands you wash away germs that you have picked up from other people, or from contaminated surfaces, or from animals and animal waste.

The influenza virus is readily inactivated by soap and water. Antibacterial hand wash products are not required because routine products, along with proper hand washing procedures, will inactivate the influenza virus.










Waterless alcohol-based hand sanitizers can be used as an alternative to hand-washing and are especially useful when access to sinks or warm running water is limited. Placing alcohol-based hand sanitizers at the entrance of facilities is useful in preventing transmission of infectious diseases.

3.5.2a Basic Hygiene Notice

PROTECTING YOURSELF AND OTHERS AGAINST RESPIRATORY ILLNESS

- ❖ **HANDWASHING IS THE MOST IMPORTANT THING YOU CAN DO TO PROTECT YOURSELF**
- ❖ Cover your nose and mouth when coughing or sneezing
 - Use a tissue and dispose of this once used in the waste
 - Always wash hands after coughing and sneezing or disposing of tissues.
- ❖ Keep your hands away from your mouth, nose and eyes.
- ❖ Avoid contact with individuals at risk (e.g. small children or those with underlying or chronic illnesses such as immune suppression or lung disease) until influenza-like symptoms have resolved.
- ❖ Avoid contact with people who have influenza-like symptoms.
- ❖ Ask people to use a tissue and cover their nose and mouth when coughing or sneezing and to wash their hands afterwards.

3.5.2b Hand Hygiene Notice – Soap and Water

Hand Hygiene with Soap and Water		
<p>1. Remove jewelry. Wet hands with warm water</p> 	<p>2. Add soap to palms</p> 	<p>3. Rub hands together to create a lather</p> 
<p>4. Cover all surfaces of the hands and fingers</p> 	<p>5. Clean knuckles, back of hands and fingers</p> 	<p>6. Clean the space between the thumb and index finger</p> 
<p>7. Work the finger tips into the palms to clean under the nails</p> 	<p>8. Rinse well under warm running water</p> 	<p>9. Dry with a single-use towel and then use towel to turn off the tap</p> 
<p>Minimum wash time 10-20 seconds.</p>		

3.5.2c Hand Hygiene Notice – Hand Sanitizer

Hand Hygiene with Alcohol-based Hand Sanitizer		
<p>1. Remove jewelry. Apply enough product to open palms.**</p> 	<p>2. Rub hands together palms to palms</p> 	<p>3. Rub in between and around fingers</p> 
<p>4. Cover all surfaces of the hands and fingers</p> 	<p>5. Rub backs of hands and fingers. Rub each thumb.</p> 	<p>6. Rub fingertips of each hand in opposite palm</p> 
<p>7. Keep rubbing until hands are dry. **The volume required to be effective varies from product to product. Enough product to keep hands moist for <u>15 seconds</u> should be applied. Do not use these products with water. Do not use paper towels to dry hands.</p>		
<p>Note: Wash hands with soap and water if hands are visibly dirty or contaminated with blood or other body fluids. Certain manufacturers recommend washing hands with soap and water after 5-10 applications of gel.</p>		

3.5.3 Workplace Cleaning

Virus transmission can also be reduced by cleaning the environment and hard surfaces (sinks, handles, railings, objects, counters) with neutral detergents followed by a disinfectant solution. Influenza viruses can live for up to two days on hard surfaces but are inactivated by disinfectants. Good disinfectants are sodium hypochlorite, granular chlorine and alcohol.

- Surfaces that are frequently touched with hands should be cleaned often.
- Do not share cups, dishes, and cutlery and ensure they are thoroughly washed with soap and hot water.
- Clean the workplaces of employees that have recently become ill.
- Remove all magazines/toys from waiting rooms.

Air Conditioning

There is scientific and medical evidence that influenza can spread in inadequately ventilated internal spaces. These spaces should be well ventilated and in office buildings this is usually done by using HVAC systems. HVAC should be maintained regularly according to appropriate standards and building codes.

3.5.4 Increase Social Distancing

Social distancing means minimizing human-to-human contact in peak phases of pandemic influenza. Contacts are those persons who have had close (one metre or less) physical or confined airspace contact with an infected person within four days of that person developing symptoms. These are likely to include family members and/or other living companions, workmates (if in confined airspace environments) and possibly recreational companions.

Epidemiological evidence from a developing pandemic may change the definition of “contact”. In Canada contact management with respect to reportable diseases is mandated by law (for instance the *Quarantine Act* and other health related *Acts*).

Employees will probably elect not to circulate in crowded places and large gatherings of people during pandemic influenza. It is recommended that business consider the use of new technologies to facilitate social distancing by using communications networks, remote access and web access (among other techniques) to maintain distance.

Suggestions on how to minimize close contact include:

- Avoid face-to-face meetings.
- Minimize meeting times.
- Meet in large rooms.
- Use communications and network technologies and devices to communicate.
- Avoid unnecessary travel (especially to endemic regions).
- Cancel or postpone non-essential meetings/workshops/training sessions.
- Leave a gap between shifts.
- Ventilate the workplace between shifts.
- Avoid cafeterias and restaurants.
- Introduce staggered lunch times.

3.5.5 Summary: How to Stay Healthy During the Pandemic Influenza

Personal Health

- Eat, rest well and exercise in moderation.
- Wash your hands frequently with warm water and soap.
- Cover your nose and mouth when coughing or sneezing.
- Minimize visitors to your home.
- Check up on friends and family who live alone.
- Watch for regular influenza updates from Health Canada.
- Get the influenza vaccine when available.
- It is recommended that people at high risk of getting influenza and its complications and their caregivers receive an annual influenza vaccine.

**Washing hands is one of the most important ways
to prevent the spread of influenza**

Stay away from crowds

- Stock up on basic items.
- Shop at smaller stores with smaller line-ups.
- Shop at off peak hours and find out which stores stay open late/24 hours.
- If possible phone ahead your grocery order for quick pick up.
- Order groceries over the phone/on line for delivery.
- Arrange to pay bills at ATMs, on line or over the phone.
- Cancel or postpone family gatherings, outings or trips.

**If you cannot avoid crowds, minimize the
amount of time you spend around people**

Stay healthy at work

- Work from home or arrange to work flex hours if possible.
- Wash your hands frequently with warm water and soap.
- Use waterless sanitizing gel to clean hands if soap & water are not available.
- Clean objects and hard surfaces that are handled by many people with a disinfectant.
- Use stairs instead of crowded elevators.
- Cancel non-essential meetings: use teleconferencing/video conferencing/emails/fax.

**If you feel unwell stay home,
rest, and drink plenty of fluids**

3.5.6 Personal Protection Materials

In the event of a pandemic, refer to the Public Health Agency of Canada's web site for the most current information on the appropriate Personal Protective Equipment (PPE).

Broadly defined, personal protective equipment or PPE is specialized clothing or equipment worn to protect someone against a hazard. It can range from just a mask or a pair of gloves to a combination of gear that might cover most or all of the body. In the case of influenza, PPE may include using masks and protective barriers.

- ✓ *Using masks:* People with respiratory infection symptoms should use a disposable surgical mask to help prevent exposing others to their respiratory secretions. Any mask must be disposed of as soon as it becomes moist or after any cough or sneeze, in an appropriate waste receptacle, and hands must be thoroughly washed and dried after the used mask has been discarded.
- ✓ *Protective Barriers:* Protective barriers (i.e., glass or plastic) may provide useful protection for people such as front-counter staff or public transport drivers, whose duties require them to have frequent face-to-face contact with members of the public where social distancing is either not possible or not practical.

3.6 Policies for Exposed Employees

All decisions regarding infectious diseases should be based on accurate and up-to-date information, considered in light of your particular situation. When in doubt, contact your local Medical Officer of Health.

Your business may decide to screen employees prior to coming to work or at the workplace to minimize the risk of a sick individual coming to work and infecting the rest of the workforce. Sick employees are encouraged to stay home until their symptoms have disappeared. **In the event of a pandemic, it is recommended that employers check the Public Health Agency of Canada's website (<http://www.phac-aspc.gc.ca/>) for the latest advice.**

Develop a workplace policy around when an employee is fit or unfit to work. The Influenza Like Illness (ILI) Assessment form (see section 3.6a) may be used as a template for screening employees. The criteria for determining fitness to work may depend on the size of the organization and the job responsibilities of the employee.

If a person feels ill, or if someone observes that another person is exhibiting symptoms of influenza at work, they are to contact the "Influenza Manager" **by telephone** if at all possible. Workers who are ill should stay at home until symptoms are resolved.

The Influenza Manager should then do the following:

1. Avoid visiting this person if it can be avoided – manage the process over the phone.
2. Check if the employee has any of the symptoms.
3. If the employee does not have any symptoms like those listed, they are very unlikely to have influenza, and should be reassured but advised to call the Influenza Manager again later or to see their physician if they are still concerned.
4. If the employee does have symptoms that match some of those listed, they should be treated as a "suspect case."

It may be helpful to have a staff influenza notification form completed, including details of any staff and/or visitors they have been in contact with. This information will permit the Influenza Manager to identify recent movements and monitor well-being during the pandemic.

5. The employee should be informed where they can find a surgical mask and instructed to wear it immediately. This is to help protect other staff.
6. The employee should leave work and immediately contact a health professional in the manner advised by Public Health Agency of Canada on its website at that time. This may involve phoning the person's normal doctor or nurse, or a specially designated centre to seek further advice.

The employee's manager should be informed that they have left work.

7. The employee should, if at all possible, avoid public transport when leaving work.
8. Contact management – It is helpful for employers to:
 - Identify contacts (once an employee is suspected to be infected);
 - Advise contacts in person that they have been in contact with a person suspected of having influenza; and,
 - Ask contacts to go home, and stay at home until advised otherwise.
9. The employee's work station should be cleaned and disinfected.
10. Your Influenza Manager will need to set up a system to manage the absence and return to work of the employee and their contacts. Some issues to consider include:
 - Advice to the employee on how long to stay away from work (the Public Health Agency of Canada website will have advice on this once the characteristics of a pandemic are known);
 - Decisions on leave and cover arrangements;
 - Checking on the staff member during his/her absence from work. This will facilitate treatment, contact tracing, etc., if they become ill;
 - Establishing a process in your plan to ensure that:
 - Employees are healthy before allowing them to return to work; and,
 - They are encouraged to return to work once they are well.

Isolation and Quarantine

The *Quarantine Act and Regulations* helps protect Canadians from dangerous and infectious diseases. Under this Act, Public Health Quarantine Officers have the authority to ask a person suspected of having an infectious disease to undergo a medical examination and to detain that person if necessary.

Quarantine may be used in the early stages of the pandemic to stop the spread of influenza.

A person may be placed on quarantine if they have been in contact or exposed to a person with an infectious illness such as influenza. This is because a person with influenza is infectious for 24 hours before they know they are sick. In order to protect the public, Public Health Quarantine Officers can place people on quarantine to prevent influenza from spreading to others. Quarantine means staying at home or in a designated building for 3 days from last exposure until the Public Health Quarantine

Officer is sure that the person is not infected with the flu. Quarantine means not going outside, not going to work, school or other public places and not meeting with other people unless given permission by the Public Health Quarantine Officer.

Quarantine Q&A for Exposed Employees

Why am I on quarantine?

You have been identified as being in contact with someone who has influenza or have recently been in an area with a high rate of influenza. You may have been exposed to the influenza virus and may have spread it to other people. Although you feel well today, you may become ill in a few days. Persons having influenza can spread the virus even when they are still feeling well.

How long do I have to stay on quarantine?

You must stay on quarantine for at least 3 days or until a Public Health Quarantine Officer tells you that it is safe for you to be off quarantine. While on quarantine, someone from public health may call you to see how you are doing and will ask you questions about having fever, chills, aches or a cough. While on quarantine you must stay inside and not go to work or school or visit anyone until you are off quarantine. It is advised that you do not have visitors while on quarantine.

What will happen if I develop symptoms of influenza while on quarantine?

If the person on quarantine becomes ill with influenza, notify the Quarantine Officer via your local health authority. You may also seek advice from your family physician. If symptoms are severe and need immediate action, call 911 (Ambulance, Paramedics) or go to the closest emergency department.

Is my family safe?

If you are on home quarantine, you and your family should take certain steps for protection. Your family should stay at least one metre away from you. All of you should wash your hands frequently with warm water and soap. Items handled by the person on quarantine should be washed thoroughly with soap and hot water or a disinfectant such as a 10% bleach solution (made up of one part bleach and nine parts water).

Human Rights Legislation

Under both federal and provincial human rights legislation, employers have a duty to accommodate employees with infectious diseases or those who have been exposed to same. The level of accommodation will depend on the circumstances.

3.6a Influenza-Like Illness (ILI) Assessment Form

An ILI assessment tool may be used as a screening tool to determine if employees should be excluded from work due to illness.

Please check the following:

ILI (Influenza-Like Illness) in the general population is determined by the presence of 1, 2 and 3 and any of 4:a-c, which could be due to the influenza virus:

- | | |
|-------|---|
| _____ | 1. Sudden onset of respiratory illness AND |
| _____ | 2. Fever greater than 38.0 degrees C AND |
| _____ | 3. Cough AND |
| _____ | 4. One or more of the following |
| _____ | a. sore throat |
| _____ | b. joint aches |
| _____ | c. muscle aches or weakness |

**May not be present in elderly people

Persons with influenza-like illness should remain at home until they have fully recovered (usually 7 days or five days after symptoms stop)

Persons, who have been exposed within the last 3 days to someone with influenza-like illness, should stay at home for 3 days until they are sure they are not ill.

Fit to Work

- Recovered from influenza-like Illness (ILI)
- Immunized for longer than two weeks
- On antiviral medication
- Asymptomatic

Unfit for Work

- Has influenza-like Illness (see ILI Assessment Tool above)

Fit to Work with Restrictions

- Due to limited resources, persons with ILI may be asked to work with restrictions
- Recommend such individuals be isolated physically from other employees or customers
- Maintain meticulous hand hygiene and environmental cleaning.

3.7 Contact Management and Tracing

Contact Definition

Close contact is defined as having cared for or lived with a person known to have an infectious disease or having a high likelihood of direct contact with respiratory secretions and/or body fluids of a patient known to have an infectious disease. Examples include kissing or embracing, sharing eating or drinking utensils, close conversation (within one metre), physical examination, and any other direct physical contact between people. Close contact does not include activities such as walking by a person or briefly sitting across a waiting room or office.

Epidemiological evidence from a developing pandemic may change the definition of “contact”. In Canada, contact management with respect to infectious diseases is mandated by law (for instance the *Quarantine Act* and Regulations and other health related Acts).

Contact Tracing

The role of contact tracing may vary according to the phase of the pandemic. At an early phase, when efforts are directed at keeping the pandemic out or in managing small clusters, contact tracing and associated quarantine of cases and contacts will be vigorous. However, if the pandemic affects larger numbers of people across the country, it will not be effective as a strategy to contain the pandemic, and may therefore be dropped.

In any circumstances, employers should urge sick staff members with influenza-like symptoms to return home immediately and contact a health professional in the manner advised by the Public Health Agency of Canada on its website at that time. This should involve phoning the person's normal doctor or nurse, or a specially designated centre to seek further advice, rather than the patient calling in without prior notification.

If the health professional identifies the patient as being a suspect or confirmed case, then the health professional will commence contact tracing in accordance with the protocols set by Health Canada at that time. This is likely to involve making contact with the patient's workplace. As indicated in the previous section, it is helpful for employers to:

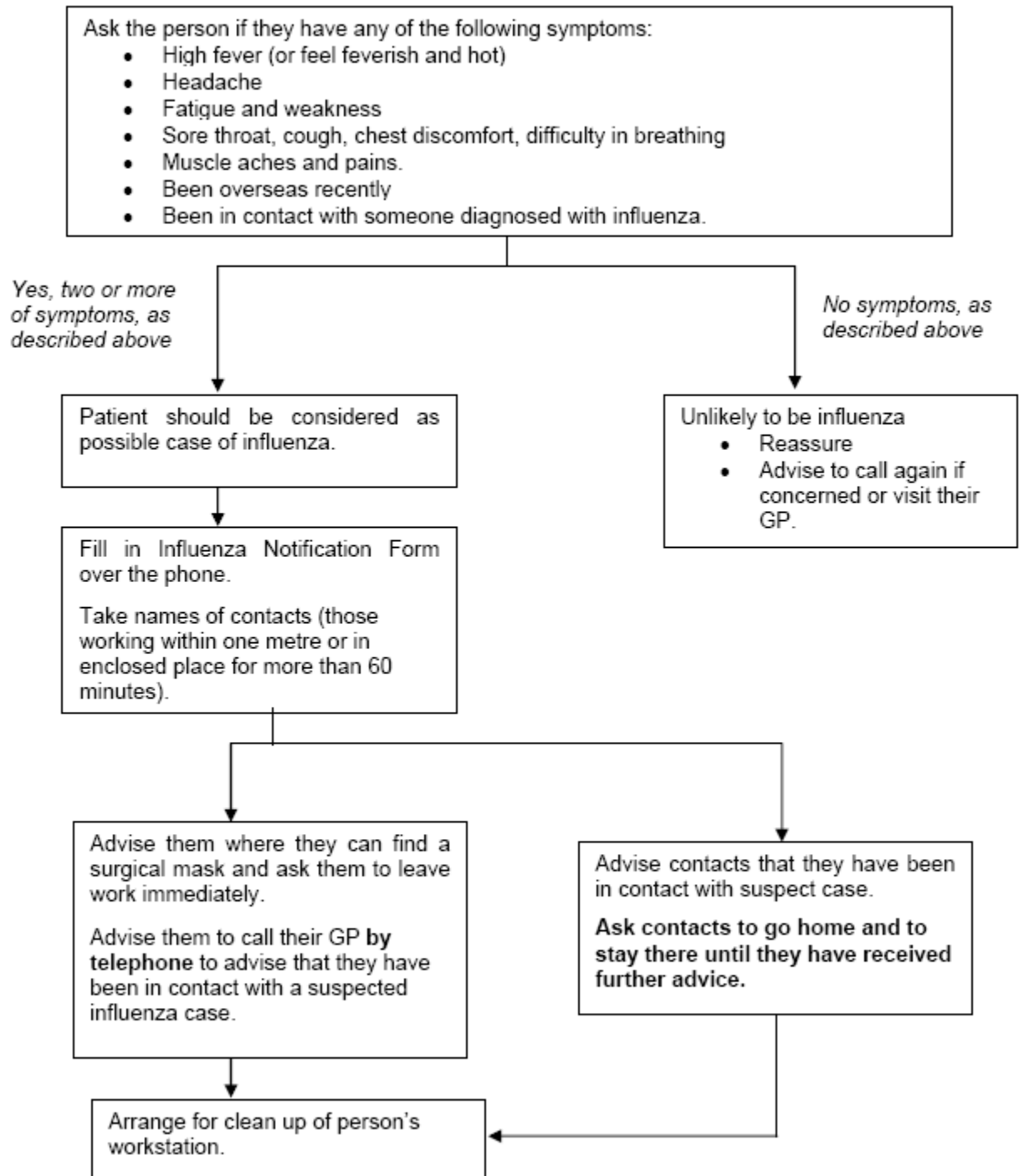
- Identify contacts (once an employee is suspected to be infected);
- Advise contacts in person that they have been in contact with a person suspected of having influenza; and
- Ask contacts to go home, and stay at home until advised otherwise.

Refer to the following three pages for additional resources for contact management and tracing.

3.7a Screening Checklist for Detection and Management of Suspected Pandemic Influenza Cases

Process

- 1) The Influenza Manager receives a call from a person suspecting they may have influenza;
- 2) Do not visit the person if this can be avoided – manage the process over the telephone;
- 3) Follow the flowchart below.



3.7b Notification Form: Suspected Influenza Case at Work

Details of Affected Staff

Name:	Worksite:	Location of Isolation:
Job title:	Nationality if Visitor to Site:	Date of birth:
Address:		
Telephone no: _____ (W) _____ (H) _____ (M)		
Symptoms noticed:		
Fever <input type="checkbox"/>	Body aches <input type="checkbox"/>	
Headache <input type="checkbox"/>	Fatigue <input type="checkbox"/>	
Dry cough <input type="checkbox"/>	Others <input type="checkbox"/>	Details: _____
Cold <input type="checkbox"/>		
Time of fever on-set: _____		
Time of isolation: _____		
Travel history over the past 8 days:		
Countries visited _____		
Flights taken: _____		
Where referred:		
Contact List (See separate page)		

Details of Reporter

Name:
Job title:
Telephone no: _____ (W) _____ (H) _____ (M)

3.7c Contact List

Close contact is defined as having cared for or lived with a person known to have an infectious disease or having a high likelihood of direct contact with respiratory secretions and/or body fluids of a patient known to have an infectious disease. Examples include kissing or embracing, sharing eating or drinking utensils, close conversation (within one metre), physical examination, and any other direct physical contact between people. Close contact does not include activities such as walking by a person or briefly sitting across a waiting room or office.

Epidemiological evidence from a developing pandemic may change the definition of “contact”. In Canada, contact management with respect to infectious diseases is mandated by law (for instance the *Quarantine Act* (<http://lois.justice.gc.ca/en/Q-1/99147.html>) and Regulations and other health related Acts).

Retain this list and provide to his/her designated officer on request.

Persons whom the affected staff has interacted with since displaying symptoms.			
Name	Email	Telephone No.	Address
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

3.8 Communications

You may have the most comprehensive and up-to-date plan possible, but without effective and up-to-date communication of that continuity plan with your employees, management, other business units in your organization, government, key suppliers, key customers, and key contractors, your plan will fail.

Some suggested steps to take to ensure an effective communications network include:

- Implementation of a dedicated email database to send information and receive feedback
- Translation and posting of all avian influenza-related documents on corporate intranet sites in all applicable languages
- Distribution of BCP Influenza Crisis Management Plan and key points to all Managers/Communicators/Security Officers
- Distribution/translation and web posting of pandemic fact sheet
- Leverage all internal communications tools
- Conduct ongoing media monitoring

It is important to ensure that communications are culturally and linguistically appropriate, and that your supply chain is involved in developing and executing the plan.

Leverage New Communication Technologies

It is possible to leverage technologies in pandemic influenza to avoid face-to-face meetings, increase social distancing and cut down on human-to-human virus transmission. Contact your technical staff to further explore the following options.

Technologies you may want to consider include:

- ✓ Remote Access Technologies: These technologies promote telecommuting and permit employees to work at home or at an alternate site while maintaining connectivity to the headquarters network access server.
- ✓ Distributed Computing Environment (DCE): We live in the world of the distributed computing environment (DCE) often called the “client server model”. This model permits employees to work remotely from their normal workstation. Connectivity is maintained by the Internet, extended networks, remote access, telecommunications devices, wireless devices and other technologies.
- ✓ Application Web Enablement: Web enabling applications facilitate secure access to applications via a browser software client over the Internet. This capability can be harnessed to facilitate flexible end-user application access in pandemic influenza. If applications are web-enabled, end-users can access

them using the Internet from anywhere (including their homes) using a client device that supports a browser.

- ✓ Communications Systems: Employees working remotely in pandemic influenza must be able to communicate with headquarters or the alternate site using telecommunications systems. It is paramount to ensure the high availability of such systems.

Communications systems include:

- Internal and external voice communications systems
- Video and phone conferencing
- Local Area Networks (LANs)
- Virtual Local Area Networks (VLANs)
- Wireless implementations and devices
- Local loop phone systems using the Plain Old Telephone System (POTS)
- Wide Area Network (WAN)
- Private Branch Exchange (PBX)
- Facsimile services
- Cell-phones
- Blackberries
- Personal digital devices
- Satellite phones.

The objectives of the BCP coordinator working with IT network staff and communications specialists are to ensure that during pandemic influenza:

- ✓ Communications systems are interoperable with other systems;
- ✓ Layers of redundancy are built in (if they fail, other systems will take over);
- ✓ Systems are highly available (robust and resilient);
- ✓ Sensitive information is protected (encryption and other technologies); and,
- ✓ Systems are regularly tested to ensure these objectives.

Without the ability to communicate with stakeholders, partners, the media and employees during pandemic influenza there will be no command and control and the “chaos” period is likely to be prolonged. Building highly available communications systems is a must for both normal operations and disruptions. This is vital to the successful recovery of critical services.

The BCP coordinator should work with the network staff to ensure the safeguards implemented are cost-effective and are justified by a business case to which the coordinator should have input.

1-800 Information Line

Employees working remotely will need instructions, information on reporting to work, and information related to the scope, risks, magnitude and possible duration of disruptions. A 1-800 information line is a common BCP solution to this problem.

The voice message can be pre-recorded and updated when required. Access to the voice recordings can be controlled by using a PIN provided to all employees. It is advisable to keep the length of the recording to a minimum.

4. Human Resource Considerations

****Please note that this section provides a brief overview of some of the human resource issues you may have to consider when developing your BCP. Please refer to the specific provincial and federal legislation applicable to your jurisdiction and type of business, and consult the health and safety officer or human resource expert in your company when developing your BCP in order to ensure a clear understanding of the rights and obligations involved for both employer and employee.***

Federal and provincial government labour ministries and corresponding regulations are listed at the end of this section.

Planning to face an influenza pandemic in Canada must include preparing your workplace to deal with the spread of communicable diseases, and employees (including unions, if applicable) must be involved in such planning.

The extent of your planning in this area will depend on the nature of your business/workplace. Larger enterprises, or those providing essential services or infrastructure, should maintain a reasonably high level of preparedness.

Smaller workplaces, and those providing “non-essential” services, will benefit significantly from some degree of preparedness. Planning will reduce the human cost and improve business viability during and after a pandemic.

Any Risks to Employees and Others Must be Reasonable

Any employer or other person who controls the workplace has responsibility for the health and safety of employees and others there, and to ensure that employees’ actions or inactions do not cause harm to others.

Independent contractors and volunteer workers have the right to withdraw their labour or services at any time, including when they feel the work environment presents an unsatisfactory level of risk.

Deciding Whether a Workplace Should Stay Open

A workplace may close through lack of staff, lack of customers, or because it presents an unacceptable level of risk to employees or others.

Different industries will involve varying degrees of risk in a pandemic, and there will be varying scope for staying in operation while reducing the hazard.

Primary industries for example, should be able to manage hazards with relatively few restrictions. On the other hand, the challenges in the service sector – including health, education, entertainment, hospitality and other industries – will be far greater. In the

health sector, for example, the inherent risks will be compounded by a need to stay open to provide treatment and care.

Preparing for the Possibility of a Workplace or Business Closure

It is strongly recommended that employers discuss this possibility with staff, staff representatives, and contractors as part of their preparedness planning.

This discussion should include identifying whether services can be delivered outside of the workplace in a way that does not pose any health and safety risk, and implementing methods of communicating workplace closure to employees.

Statutory requirements relating to the employment relationship and any specific requirements of employment agreements will not be affected by workplace closure during a pandemic.

In the event that the employer decides, or is required to, suspend business during a pandemic, it is important that the employment conditions during the business suspension are discussed with employees. Those discussions may include, for example, the use of annual leave.

Contractors for services will be subject to their contracts, and contract law generally applies.

If a Workplace or Business Stays Open

If a workplace or business stays open during a pandemic, the appropriate provincial and/or federal legislation (ie. *Canada Labour Code* and Federal and Provincial *Occupational Health and Safety* regulations) will continue to apply according to the circumstances.

4.1 Canada Labour Code and Occupational Health and Safety Regulations

****Please note that there are some differences between federal and provincial legislation related to occupational health and safety. While the Canada Labour Code regulates some industries, most companies must also comply with applicable provincial legislation (see below for contact information).***

The *Canada Labour Code Part II* and its regulations, the 'Canada Occupational Health and Safety Regulations' regulate aspects of health and safety in the workplace including hazardous substances like a biological virus. The human resources strategies devised for the BCP must comply with the *Code* and its regulations. The BCP Coordinator should liaise with the following entities (if applicable) while preparing the BCP:

- Work Place Health and Safety Committees
- The Health and Safety Representative
- Policy Health and Safety Committees
- The Health and Safety Officer.

The *Code* establishes the legislative framework and duties and responsibilities of the employer and employees. The *Regulations* provide the detailed requirements.

A hazardous substance could include the pandemic virus since it is a biological agent. A hazardous substance is defined as:

“a controlled product and a chemical, biological, or physical agent that, by reason of a property that the agent possesses, is hazardous to the safety or health of a person”

The most relevant sections of the *Canada Labour Code Part II Occupational Health and Safety* are:

Section 124. Every employer shall ensure that the health and safety at work of every person employed by the employer is protected.

Section 125. (1) Without restricting the generality of section 124, every employer shall, in respect of every work place controlled by the employer and, in respect of every work activity carried out by an employee in a work place that is not controlled by the employer, to the extent that the employer controls the activity,

(p) ensure, in the prescribed manner, that employees have safe entry to, exit from and occupancy of the work place;

(s) ensure that each employee is made aware of every known or foreseeable health or safety hazard in the area where the employee works;

Section 128. (1) Subject to this section, an employee may refuse to use or operate a machine or thing, to work in a place or to perform an activity, if the employee while at work has reasonable cause to believe that

(b) a condition exists in the place that constitutes a danger to the employee...

Section 145 (2) If a health and safety officer considers that a condition in a place constitutes a danger to an employee while at work,

(a) The officer must notify the employer of the danger and issue directions in writing to the employer directing the employer, immediately or within the period that the officer specifies, to take measures to

- (i) correct the hazard or condition or alter the activity that constitutes the danger,
- (ii) protect any person from the danger...

If the employer agrees that a danger exists, the employer shall take immediate action to protect employees from the danger.

The full *Canada Labour Code Part II - Occupational Health and Safety* is available online at: <http://laws.justice.gc.ca/en/L-2/146493.html#rid-146499>

Three Rights of Employees

The *Code* provides three rights:

- Right to Know;
- Right to Participate;
- Right to Refuse.

Right to Know: Employees have the right to be informed of known or foreseeable hazards such as pandemic influenza. They must be given the information, instruction, training and supervision necessary to protect their health and safety. Effective communication will be crucial in preparing for and controlling pandemic influenza.

Right to Participate: Employees have the right and responsibility to identify and correct job-related health and safety issues. They could exercise this right during pandemic influenza. Employees can also participate through a complaint process and may complain if pandemic influenza has not been well handled.

Right to Refuse: Employees can refuse work where there is reasonable cause to believe:

- A dangerous condition exists;
- An activity constitutes a danger to one or more employees.

It is possible that employees may refuse work when pandemic influenza poses a danger.

Duties of Employers and Employees

Employers: Under Section 124 employers must ensure the health and safety of every employee is protected. This may require implementing programs, plans and response actions for pandemic influenza.

Employees: Under Subsection 126. (1), employees have obligations to prevent occupational related injuries and diseases. They must take reasonable and necessary precautions to ensure their own and others' health and safety.

In the event of pandemic influenza, employees could exercise this obligation and would require guidance, training, education, cleaning substances and protective clothing such as protective barriers, gloves and masks.

4.2 Training and Awareness

Risk communication, training and awareness programs will be essential to provide information on pandemic influenza. Supervisors, managers and members of committees will have specific responsibilities.

An employer must provide information, instruction, training and supervision necessary to ensure health and safety. Employers must:

- Ensure supervisors and managers are trained and informed of their responsibilities where they act on behalf of their employer; and
- Ensure policy and work place committees and health and safety representatives are trained and informed of their responsibilities.

Training should include safe practices and procedures, and plans, policies, or programs that the employer develops under the applicable legislation.

Employees, supervisors, managers and members of committees should have specific responsibilities in the BCP for pandemic influenza and should receive appropriate training to exercise these responsibilities.

Training should cover:

- Duties of the employer and employees;
- The three rights of employees; and,
- Procedures required by the applicable legislation.

Training should include steps to follow in cases of refusal to work, when complaints are filed, and when hazardous occurrences need to be investigated.

Methods of instruction can include lectures, films, hands-on demonstrations, and information materials of various kinds. The extensiveness of the training is dependent on the work practices and procedures particular to the work place.

Keep Communication Open and Frequent

In all cases, it will be useful to discuss any likely impacts with employees, unions (if applicable) and others that may be affected beforehand. Whatever agreement and clarification can be achieved before a pandemic will prove a valuable investment should the emergency occur.

The Department of Human Resources and Social Development Canada (<http://www.hrsdc.gc.ca/en/home.shtml>) provides further information regarding human resource issues in a pandemic.

4.3 Selected Federal and Provincial Labour Statutes and Regulations

**Please note that this list is not exhaustive and that other regulations not listed here may apply to your business. The Department of Justice Canada <http://laws.justice.gc.ca/> provides a full list of applicable statutes and regulations broken down by federal and provincial jurisdiction.*

Federal

Canada Labour Code: <http://canlii.org/ca/sta/l-2/>

Canadian Occupational Health and Safety Regulations: <http://canlii.org/ca/regu/sor86-304/>

Canada Labour Standards Regulations: <http://laws.justice.gc.ca/en/L-2/C.R.C.-c.986/index.html>

Department of Human Resources and Social Development Canada:

<http://www.hrsdc.gc.ca/en/home.shtml>

British Columbia

Labour Relations Code <http://www.lrb.bc.ca/code/>

Health Act: http://www.qp.gov.bc.ca/statreg/stat/H/96179_01.htm

Alberta

Occupational Health and Safety Act: <http://canlii.org/ab/laws/sta/o-2/20051114/whole.html>

Saskatchewan

Occupational Health and Safety Act: <http://canlii.org/sk/laws/sta/o-1.1/20051216/whole.html>

Manitoba

Workplace Health and Safety Act: <http://www.canlii.org/mb/laws/sta/w-210/20051114/whole.html>

Labour Relations Act: <http://www.canlii.org/mb/laws/sta/l-10/20051114/whole.html>

Ontario

Ontario Occupational Health and Safety Act:

http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/90o01_e.htm

Labour Relations Act: http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/95l01_e.htm

Quebec

Occupational Health and Safety: <http://www.canlii.org/qc/laws/sta/s-2.1/20051216/whole.html>

Quebec Statutes and Regulations: http://www.canlii.org/qc/index_en.html

New Brunswick

Occupational Health and Safety Act: <http://www.canlii.org/nb/laws/sta/o-0.2/20051114/whole.html>

Nova Scotia

Occupational Health and Safety Act: <http://www.canlii.org/ns/laws/sta/1996c.7/20051216/whole.html>

Prince Edward Island

Occupational Health and Safety Act: <http://www.canlii.org/pe/laws/sta/o-1/20051216/whole.html>

Labour Act: <http://www.canlii.org/pe/laws/sta/l-1/20051216/whole.html>

Newfoundland and Labrador

Occupational Health and Safety Act: <http://www.canlii.org/nl/laws/sta/o-3/20051121/whole.html>

Yukon

Occupational Health and Safety Act: <http://www.canlii.org/yk/laws/sta/159/20041124/whole.html>

Northwest Territories

Safety Act: <http://www.canlii.org/nt/laws/sta/s-1/20051121/whole.html>

Labour Standards Act: <http://www.canlii.org/nt/laws/sta/l-1/20051121/whole.html>

Nunavut

Statutes and Regulations: <http://www.canlii.org/nu/sta/index.html>

Appendix 1 Where Can I Find More Information?

The following websites provide further information about pandemic influenza:

National Updates: *Public Safety and Emergency Preparedness Canada*
(<http://www.psepc-sppcc.gc.ca/>)
Phone: 1-800-484-8302
Email: PHAC_Web_Mail@phac-aspc.gc.ca

Health Canada – Latest Headlines, Advisories and Warnings
(<http://www.hc-sc.gc.ca/>)
Local Health Canada Phone Numbers:
http://www.hc-sc.gc.ca/home-accueil/contact/branch_sub_e.html

Travel Advisories: www.travelhealth.gc.ca

International

- **World Health Organization**
Epidemic and Pandemic Alert and Response (EPR)
(http://www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_5/en/index.html)
- **U.S. Centre for Disease Control (CDC)**
Pandemic Influenza
(<http://www.cdc.gov/flu/pandemic/>)
- **PandemicFlu.gov** – The official U.S. government Web site for information on pandemic flu and avian influenza – Includes a Business Pandemic Influenza Planning Checklist.
(<http://www.pandemicflu.gov/plan/tab4.html>)
- **New Zealand Ministry of Economic Development**
Influenza Pandemic Planning: Business Continuity Planning Guide
(http://www.med.govt.nz/irdev/econ_dev/pandemic-planning/business-continuity/planning-guide/index.html)

Federal

- **Public Health Agency of Canada**
Canadian Pandemic Influenza Plan
(<http://www.phac-aspc.gc.ca/cpip-pclcpi/index.html>)
- **FluWatch** Reports: (<http://www.phac-aspc.gc.ca/fluwatch/index.html>)
- Immunization and Vaccines
(<http://www.phac-aspc.gc.ca/im/index.html>)

- **Public Safety and Emergency Preparedness Canada**
A Guide to Business Continuity Planning
(<http://www.psepc-sppcc.gc.ca/prg/em/gds/bcp-en.asp>)
- **Health Canada**
Global Pandemic Influenza Readiness
(http://www.hc-sc.gc.ca/ahc-asc/intactiv/pandem-flu/index_e.html)
- **Government of Canada – Canada Health Portal**
NEWS ROOM
(http://chp-pcs.gc.ca/CHP/index_e.jsp?pageid=4060)
- **SafeCanada.ca – Pandemic Preparedness**
(<http://www.safecanada.ca/>)
- **Canadian Centre for Occupational Health and Safety**
(<http://www.ccohs.ca/>)
- **Canadian Food Inspection Agency**
Avian Influenza - Latest Information (includes email updates)
(www.inspection.gc.ca/english/anima/heasan/disemala/avflu/situation_e.shtml)

Provincial and Territorial

Provincial and Territorial Emergency Management Organizations (EMOs):

Alberta

Emergency Management Alberta
Tel: 780-422-9000
Fax: 780-422-1549
Web site: <http://www.gov.ab.ca/ma/ema>

British Columbia

Provincial Emergency Program (PEP)
Phone: (250) 952-4913
Fax: (250) 952-4888
Web site: <http://www.pep.bc.ca>

Manitoba

Emergency Measures Organization
Phone: (204) 945-4772
Toll-free: 1 (888) 267-8298
Fax: (204) 945-4620
Web site: <http://www.manitobaemo.ca>

New Brunswick

Emergency Measures Organization
Phone: (506) 453-2133
Toll-free: 1 (800) 561-4034

Fax: (506) 453-5513

Web site: <http://www.gnb.ca/cnb/emo-omu/index-e.asp>

Newfoundland & Labrador

Emergency Measures Division

Phone: (709) 729-3703

Fax: (709) 729-3857

Web site: <http://www.gov.nf.ca/mpa/emo.html>

Northwest Territories

Emergency Measures Organization

Phone: (867) 873-7785

Fax: (867) 873-8193

Web site: http://www.maca.gov.nt.ca/safety/emergency_organization.html

Nova Scotia

Emergency Measures Organization

Phone: (902) 424-5620

Fax: (902) 424-5376

Web site: <http://www.gov.ns.ca/emo/>

Nunavut

Nunavut Emergency Management

Phone: (867) 975-5300

Fax: (867) 979-4221

Ontario

Ontario Emergency Management

Ontario Ministry of Community Safety and Correctional Services

77 Wellesley St. West, Box 222

Toronto, ON

M7A 1N3

Telephone: (416) 314-3723

Fax: (416) 314-3758

Web site: http://www.mpss.jus.gov.on.ca/english/pub_security/emo/about_emo.html

Prince Edward Island

Emergency Measures Organization

Phone: (902) 368-4000

Fax: (902) 368-5544

Web site: <http://www.gov.pe.ca/caag/emo-info/index.php3>

Québec

Direction générale de la sécurité civile et de la sécurité incendie

Phone: (418) 644-6826

Fax: (418) 643-3194

Or one of the regional offices:

Gatineau : (819) 772-3737

Montréal: (514) 873-1300

Rimouski: (418) 727-3589
Trois-Rivières: (819) 371-6703 or your municipality
Web site: http://www.msp.gouv.qc.ca/index_en.asp

Saskatchewan

Emergency Management Organization
Phone: (306) 787-9563
Fax: (306) 787-1694
Web site: <http://www.cps.gov.sk.ca/Safety/emergency/default.shtml>

Yukon

Emergency Measures Organization
Phone: (867) 667-5220
Toll free (In Yukon): 1 (800) 661-0408
Fax: (867) 393-6266
Web site: <http://www.gov.yk.ca/depts/community/emo/>

Other Provincial and Territorial Contacts

Alberta

- **Alberta Health and Wellness**
Alberta's Plan for Pandemic Influenza
(<http://www.health.gov.ab.ca/influenza/PandemicPlan.html>)

British Columbia

- **British Columbia Ministry of Health**
(<http://www.healthservices.gov.bc.ca/pho/pandemic.html>)
- **BC Centre for Disease Control**
Pandemic Influenza Preparedness Plan
(<http://www.bccdc.org/content.php?item=150>)

Manitoba

- **Manitoba Health**
Office of the Chief Medical Officer of Health
Preparing for Pandemic Influenza in Manitoba
(<http://www.gov.mb.ca/health/publichealth/cmoh/pandemic.html>)

New Brunswick

- **New Brunswick Department of Health and Wellness**
New Brunswick Pandemic Influenza Plan
(<http://www.gnb.ca/0053/influenza/index-e.asp>)

Newfoundland & Labrador

- **Newfoundland & Labrador Department of Health and Community Services**

[\(http://www.health.gov.nl.ca/health/\)](http://www.health.gov.nl.ca/health/)

Northwest Territories

- **Government of the Northwest Territories Health and Social Programs**
(<http://www.gov.nt.ca/agendas/health/index.html>)

Nova Scotia

- **Nova Scotia Department of Health**
(<http://www.gov.ns.ca/govt/pandemic/>)

Nunavut

- **Nunavut Department of Health and Social Services**
(<http://www.gov.nu.ca/hsssite/hssmain.shtml>)

Ontario

- **Ontario Ministry of Health and Long-Term Care**
Ontario Health Plan for an Influenza Pandemic
(http://www.health.gov.on.ca/english/providers/program/emu/pan_flu/pan_flu_plan.html)
- **HealthyOntario.com**
(http://www.healthyontario.com/Health_Feature/Avian_Flu_Facts.htm)

Prince Edward Island

- **Prince Edward Island Department of Health and Social Services**
(<http://www.gov.pe.ca/health/>)

Quebec

- **Santé et Services sociaux Québec**
(<http://www.msss.gouv.qc.ca/sujets/santepub/pandemie/index.php?pandemic>)

Saskatchewan

- **Saskatchewan Health**
(<http://www.health.gov.sk.ca/>)

Influenza Avian Flu Pandemic Fact Sheet

(http://www.health.gov.sk.ca/rr_flu.pdf)

Yukon

- **Yukon Health and Social Services**
(<http://www.hss.gov.yk.ca/>)

Appendix 2 Background on Influenza Pandemic, Terminology, List of Abbreviations

**The questions and answers below are adapted from the website of the Public Health Agency of Canada (© Public Health Agency of Canada, 2005) and are also available online at: http://www.phac-aspc.gc.ca/influenza/pandemic_qa_e.html. As the information below (taken March 2006) will change as the H5N1 situation develops, please refer to the Public Health Agency of Canada for the most up-to-date information available.*

AVIAN INFLUENZA A (H5N1) SITUATION UPDATE:

http://www.phac-aspc.gc.ca/tmp-pmv/2006/h5n1060209_e.html

What is avian influenza?

Avian influenza is a contagious viral infection that can affect all species of birds but can, less commonly, infect mammals. While all bird species are thought to be susceptible to infection, domestic poultry flocks are especially vulnerable to infections that can rapidly turn into epidemics. Wild birds may carry influenza viruses without becoming ill due to natural resistance. Wild waterfowl present a natural reservoir for these viruses and can be responsible for the primary introduction of infection into domestic poultry. Further evolution of these viruses amongst poultry may result in strains that are capable of causing a wide range of clinical illness, from no symptoms to a severe epidemic that kills up to 100 percent of infected birds.

Is avian influenza transmissible to humans?

People have contracted avian flu and limited, inefficient human-to-human transmission is suspected in some cases. To date, the avian influenza viruses that have caused illness in people include the H5N1, H7N7, H7N3 and H9N2 subtypes, with H5N1 associated with the most serious illness in humans.

Since January 2004, widespread outbreaks of H5N1 in birds in Asian countries have been associated with human cases and deaths in Asia.

In B.C., two people were infected with avian influenza during a H7N3 outbreak in poultry in 2004. Both cases of infection followed close contact with infected poultry and contaminated materials and resulted in mild symptoms. Both people recovered fully.

In February 2003, the H5N1 strain jumped from birds to infect two members (father and son) of a family from Hong Kong who had travelled to southern China. The father died but the son recovered. A third member of the family, the boy's sister, died of a severe respiratory illness in China.

An outbreak of H7N7 in the Netherlands in 2003 resulted in one death and over 80 cases of mild disease in people. The vast majority of these cases exhibited conjunctivitis, and some of them displayed mild influenza-like illness.

The first documented human infection with H5N1 occurred in Hong Kong in 1997. In that first outbreak, 18 people were hospitalised and 6 of them died.

Why are so many people in places like Vietnam and Thailand dying?

An increase in human cases of avian influenza in Vietnam and Thailand coincides with new outbreaks of the virus in birds. Avian influenza will remain a threat as long as the virus is circulating in the country. Avian influenza viruses become more active in cooler temperatures so it is likely that we'll continue to see more poultry outbreaks as well as human cases.

To date, most human cases have been linked to direct contact with infected poultry. Often, this contact includes high risk exposure during the slaughter, de-feathering and preparation of poultry for cooking.

Poultry marketing, transportation and consumption also increases in Vietnam with the approach of the Lunar New Year in early February. These activities create conditions favourable for poultry outbreaks.

Is there a vaccine for H5N1?

A vaccine is not currently available. At this point though, a genetically modified seed strain for H5N1 vaccine development is available and vaccine manufacturers in several countries, including Canada have acquired this seed strain. Manufacturers are working now to optimize the conditions under which the modified H5N1 virus grows in eggs. This will allow them to develop a virus seed bank for future vaccine production.

The virus has been modified using a technique called reverse genetics so that it can grow in chicken eggs, the main source of influenza vaccine production. The genetic modification also makes the virus less virulent.

How many people have died in these countries?

The WHO provides the most recent information on the cumulative number of cases and deaths since January 28, 2004. Please visit the WHO web site (<http://www.who.int>).

Is avian flu activity in these regions increasing?

According to the World Health Organization and the World Organization for Animal Health, outbreaks in birds in Vietnam appear to be increasing since December 2004, especially in the southern areas. The number of human cases is currently not that different from what we've seen in 2004. Increasing outbreaks among birds in the affected countries increases the chances for human exposure to the virus.

What is Canada doing to help these countries and to prevent the international spread of the virus?

The Public Health Agency of Canada has provided communications and public health support to the region. The Agency continues to work with the WHO, other international organizations and other countries to improve the prevention and control of avian influenza and pandemic influenza preparedness.

Is H5N1 going to evolve into a strain of pandemic influenza?

We don't know for sure whether or not H5N1 will evolve into a pandemic strain but it has shown the ability to mutate so it is a concern. Influenza viruses are constantly changing over time and it is possible that changes in the virus currently affecting Vietnam and Thailand can result in a virus that is more efficiently transmissible to and among humans.

While there have recently been changes in the virus, there is currently no indication that the virus has changed to a form that could result in a pandemic. This possibility is being closely monitored.

How will we know if H5N1 is becoming a pandemic strain?

If H5N1, or any other strain of avian influenza, were to evolve into a pandemic strain of influenza, we expect, based on the scientific research that's been done, that we would see efficient and sustained human-to-human transmission of the virus. This means we would see a large and growing number of new and unrelated cases increasing daily which, to date, has not been the case.

What is the Canadian Government doing to protect us against the next pandemic?

The Public Health Agency of Canada, together with other federal government departments and provincial and territorial governments, has taken and continues to take action in a number of areas to protect Canadians. Activities include:

- Maintaining the **Canadian Pandemic Influenza Plan** (See *Appendix 2A*). The plan maps out how Canada will prepare for and respond to pandemic influenza. The Agency continues to work on the plan based on new information that becomes available. The plan also provides a model for responding to other infectious disease outbreaks.
- Establishing a contract for **pandemic vaccine production**. The World Health Organization has recognized Canada as a leader in pandemic preparedness and one of the few countries in the world to put in place a domestic contract for pandemic influenza vaccine production.
- Developing and testing a **prototype vaccine** against the H5N1 influenza strain to speed up the availability of a pandemic vaccine when it is needed.
- Creating a **national antiviral stockpile** for use against an influenza pandemic. The national stockpile will be used to treat identified priority groups agreed upon by a national expert committee.
- Managing the **National Emergency Stockpile System (NESS)**. The NESS contains everything that you would expect to find in a hospital, from beds and blankets and a supply of pharmaceuticals. This includes a stockpile of antiviral medication.
- Providing **international leadership pandemic preparedness**. For instance, Canada is collaborating with the WHO and other countries and is co-leading with the United Kingdom discussions related to the supply and use of antivirals within the Global Health Security Action Group with the G7 plus Mexico.
- Helping countries affected by H5N1 **develop their capacity to respond** to an emerging infectious disease outbreak. The Public Health Agency's National Microbiology Lab (NML) has been working with Vietnam's National Institute of Hygiene and Epidemiology (NIHE) at their main laboratory in Hanoi, to improve its testing capability for avian influenza.

- Conducting **research to advance the global response to pandemic influenza**. The National Microbiology Lab has been working to increase its vaccine development capacity and contribute to knowledge on pandemic influenza and what makes some strains particularly deadly. The NML has also been developing its ability to create a seed strain for a vaccine utilizing the **reverse genetics** technique. This will ensure that Canada is able to develop an influenza vaccine as rapidly as possible once a pandemic strain emerges.
- Managing a **real-time alert system for serious respiratory illnesses (SRIs)**, including SARS, to ensure timely dissemination of information to the provinces and territories.
- Strengthening **ongoing year round surveillance** for influenza through the national FluWatch system (<http://www.phac-aspc.gc.ca/fluwatch/>). Reports are published weekly or bi-weekly.
- Strengthening linkages with animal influenza surveillance to **improve Canada's ability for early detection of novel flu virus** that can infect humans.
- Putting in place a **hospital-based surveillance system** to detect cases and clusters of severe or emerging respiratory infections and to effectively prevent and contain their spread in acute care facilities.
- Monitoring the global situation and verifying information received from the **Global Public Health Information Network (GPHIN)** alert system. GPHIN tracks thousands of global media stories on public health issues and allows the Public Health Agency to quickly identify and monitor cases of severe respiratory infections around the world.
- Ongoing support and maintenance of **Quarantine Services** at the Toronto, Vancouver, Montreal (Pierre Elliot Trudeau), Calgary, Edmonton, Halifax and Ottawa international airports. Quarantine officers provide health assessments for international travelers that have signs of illness.
- Increasing **public awareness of influenza** and influenza virus through collaboration with the CPHA and the Canadian Immunization Awareness Program (Canadian Coalition for Influenza Awareness).

What do the H and the N mean?

These letters refer to surface proteins, hemagglutinin (H) and neuraminidase (N), on the influenza virus that determine its subtype.

What's the difference between high and low pathogenicity?

The virus is considered low or highly pathogenic based on the severity of the illness in the bird population. Highly pathogenic avian influenza causes a severe disease that escalates rapidly from the onset of symptoms to severe illness and death in the bird population. Deaths in the bird population can approach 100% when the virus is highly pathogenic. Low pathogenic viruses cause less serious illness and the affected birds often recover.

Low and high pathogenicity refers to how the virus behaves in birds. Every precaution has and continues to be taken to protect human health regardless of the virus' pathogenicity in birds.

Should individuals get a flu shot to guard against avian influenza?

The current season flu shot does not protect against avian influenza. Immunization with the current season flu vaccine would be important though for those in close contact with infected poultry because it could reduce the likelihood that a worker would be infected with the human and avian forms of influenza at the same time. If a person were infected with both viruses at the same time, there is a possibility that the two viruses will "mix" and create a new virus against which people have no immunity.

Can mosquitoes transmit avian influenza from birds to people like West Nile?

There is no evidence that the influenza virus can be transmitted by mosquitoes.

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Additional Government Resource for Business Continuity Planning (BCP)

Recognizing that in an emergency situation private organizations must continuously deliver products and services to satisfy shareholders and to survive, Public Safety and Emergency Preparedness Canada has prepared an online summary and general guidelines for business continuity planning (BCP) for Canadian business and industry. They are available at: <http://www.ocipep.gc.ca/prg/em/gds/bcp-en.asp>.

Government Powers in the Event of a Pandemic Emergency

The Chief Public Health Officer (CPHO - Head of the Public Health Agency of Canada), in consultation with the national Pandemic Influenza Committee, monitors and responds to reports of novel influenza viruses circulating the world or in Canada. The CMOH reviews the progression of disease caused by a novel influenza subtype and advises the Minister of Health.

Provincial, territorial health ministries and/or local authorities assume lead responsibility for public communications within their jurisdictions, however, Health Canada is the lead organization for public communications if a pandemic has moved beyond a single province or if a national emergency has been declared. Specific responsibilities of Health Canada include disease surveillance and national guidelines for infection control.

In the event of a pandemic emergency, public communications among all involved national and international organizations will be coordinated by Health Canada. Public communications around an influenza pandemic will occur in the international context.

Establishment and Coordination of Toll-Free Lines and Web Site

In the event of a pandemic emergency, Health Canada will ensure that toll-free information lines are established for the general public (www.hc.gc.ca).

If the emergency escalates, a central, emergency specific website will be established. Health Canada is currently developing options for such a central, emergency specific website.

Minister of Health – Interim Orders

The Minister of Health also has the power to issue an interim order in the event of an emergency if the Minister believes that immediate action is required to deal with a significant risk, direct or indirect, to health or safety. An interim order is intended to address circumstances where there is no time to make a regulation as the law would normally require. An interim order has the advantage of being able to provide a short-term "tailor-made" solution to a specific situation.

An example of an interim order in the event of a pandemic might include:

- Requiring persons arriving in Canada to provide evidence of immunization in certain circumstances (such as where there is an epidemic in another country);
- Requiring people to submit themselves for medical examination;
- Requiring mandatory vaccinations and quarantine.

Declaration of a National State of Emergency

The Prime Minister or the Cabinet can declare a national state of emergency. A national emergency is defined in the National Emergencies Act as "an urgent and critical situation of a temporary nature" that exceeds a province's ability to cope and that threatens the welfare of Canadians and the ability of the Canadian government to preserve the "sovereignty, security and territorial integrity of Canada."

The federal government has special powers in a national state of emergency. The government may, at its discretion:

- Regulate or prohibit travel when it is deemed necessary for health and safety reasons;
- Remove people and their possessions from their homes;
- Use or dispose of non-government property at its discretion;
- Authorize and pay persons to provide essential services that are deemed necessary;
- Ration and control essential goods, services and resources;
- Authorize emergency payments;
- Establish emergency shelters and hospitals; and,
- Convict or indict those who contradict any of the above.

Under the Emergencies Act, the Governor in Council may make various orders or regulations, but only if a state of national emergency has been declared. However, a situation may not justify declaring a state of emergency at the national level, but still require that immediate action be taken to protect the public. It should be noted that the scope of the powers the Minister could exercise is more limited than the powers granted to the Governor in Council under the Emergencies Act.

Appendix 2a WHO Pandemic Phases and Corresponding Management Strategies

Table 1 WHO Pandemic Phases and Corresponding Management Strategies

Phase	Description	Strategy
Inter-pandemic	Normal conditions	General preparedness.
Pre-pandemic Period		
Phase 1	No new influenza virus subtypes have been detected. If present in animals, the risk of human infection or disease is considered to be low.	Strengthen preparedness.
Phase 2	No new influenza virus subtypes have been detected in humans. However, a circulating animal subtype poses a substantial risk of human disease.	Minimize the risk.
Pandemic Alert Period		
Phase 3 (Current Phase)	Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.	Early detection, notification and response.
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.	Containment.
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).	Gain time to implement response measures.
Phase 6	Pandemic: increased and sustained transmission in general population.	Minimize pandemic impacts.
Post-pandemic continuity		Recovery.

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Appendix 2b List of Acronyms

List of Acronyms			
BCP	<i>Business Continuity Plan</i>	ID	<i>Identification</i>
BIA	<i>Business Impact Analysis</i>	ILI	<i>Influenza-Like Illness</i>
BMO	<i>Bank of Montreal</i>	IT	<i>Information Technology</i>
CCRF	<i>Canadian Charter of Rights and Freedoms (Charter for short)</i>	IM	<i>Information Management</i>
CFIA	<i>Canadian Food Inspection Agency</i>	MGI	<i>Policy on the Management of Government Information</i>
CI	<i>Critical Infrastructure</i>	MITSS	<i>Management of Information Technology Security Standard</i>
COE	<i>PSEPC Centre of Excellence for BCP</i>	NCI	<i>National Critical Infrastructure</i>
Code	<i>Canada Labour Code Part II</i>	NHEMS	<i>National Health Emergency Management System</i>
CPIP	<i>Canadian Pandemic Influenza Plan</i>	NERS	<i>National Emergency Response System</i>
CSPS	<i>Canada School of Public Service</i>	PHAC	<i>Public Health Agency of Canada</i>
CSRМ	<i>Continuous Security Risk Management</i>	PIA	<i>Privacy Impact Assessment</i>
DSO	<i>Departmental Security Officer</i>	PIC	<i>Pandemic Influenza Committee</i>
EOC	<i>Emergency Operations Centre</i>	PPE	<i>Personal Protective Equipment</i>
F/P/T	<i>Federal/Provincial/Territorial</i>	PSEPC	<i>Public Safety and Emergency Preparedness Canada</i>
GSP	<i>Government Security Policy</i>	SARS	<i>Severe Acute Respiratory Syndrome</i>
GoC	<i>Government of Canada</i>	TAA	<i>Training and Awareness</i>
GOC	<i>Government Operations Centre</i>	TRA	<i>Threat and Risk Assessment</i>
FAO	<i>World Food and Agriculture Organization</i>	UPS	<i>Uninterrupted Power Supply</i>
GDP	<i>Gross Domestic Product</i>	VPN	<i>Virtual Private Network</i>
GPHIN	<i>Global Public Health Intelligence Network</i>	WHO	<i>World Health Organization</i>
HVAC	<i>Heat, Ventilation, and Air Conditioning</i>	WOAH	<i>World Organization for Animal Health</i>
H5N1	<i>An animal or human virus that could cause pandemic influenza</i>		
HR	<i>Human Resources</i>		

Appendix 3: Pandemic Management Phase – Standard Planning Assumptions

The assumptions contained in this appendix are adapted from information contained in the Canadian Pandemic Influenza Plan (<http://www.phac-aspc.gc.ca/cpip-pclcpi/>).

Clearly, any pandemic would be highly disruptive and disturbing. It would likely unfold in stages, which means protracted uncertainty, and it would happen in many cities in many countries at roughly the same time—it would be pervasive. Dr. Sherry Cooper, Don't Fear Fear or Panic Panic.

This appendix models the potential impact of a large severe pandemic influenza wave on the workforce. The basic scenario is that of the 'Spanish Flu' of November 1918, which killed an estimated 30,000 to 50,000 people in Canada and 20 to 40 million people worldwide. During each of the last three pandemics, the greatest increase in death rates occurred among persons less than 60 years of age; in 1918–19, the greatest number of deaths occurred in those 20 to 40 years of age.

Unlike natural disasters, where any disruption to business service provision is likely to be hardware-related, disruption to business operation in the event of a pandemic is anticipated to be mainly human-resource oriented. Individual employers must consider their workforces and their particular circumstances, however, most should plan for up to 50% staff absences for periods of about two weeks at the height of a severe pandemic wave, and lower levels of staff absence for a few weeks either side of the peak. Overall, a pandemic wave may last about 8 weeks.

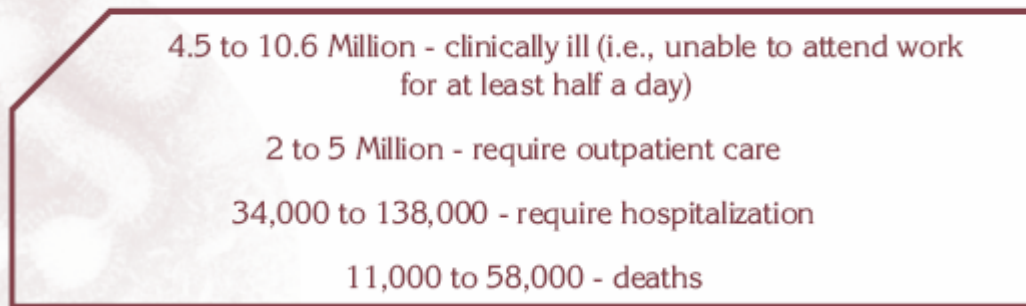
Assumptions

- The impact of a pandemic would likely be widespread, even global, not localized to a single area; therefore, there may be little outside assistance.
- Businesses would be confronted by up to 50 percent absenteeism, as many workers become ill, stay home to take care of children or family members, or refuse to go to work, especially in heavily populated office towers.
- 15 to 35 percent of employees are likely to become ill at some time during the eight weeks of the pandemic wave.
- The workplace attack wave follows a pattern similar to that expected in the general population.
- Every person who becomes ill misses seven days of work.
- There is a 100 percent additional absence rate – that is, for every person in the workforce who gets ill, another does not come to work because of the need to look after a spouse or children, or a disinclination to travel or work.
- The additional absences follow the workplace attack pattern.
- 2 percent of workers who become ill are likely to die.
- No estimate is made for people doing extra shifts or longer shifts, or for any recruitment into the workforce during the pandemic.

In the event of a pandemic influenza, Health Canada estimates that 4.5 to 10.6 million Canadians would become clinically ill such that they would be unable to attend work or

other activities for at least a half a day. This proportion, representing 15 to 35 percent of the population, does not include individuals who contract the virus and feel ill, but continue their usual activities. In addition, it is estimated that between 2.1 and 5.0 million people would require outpatient care, between 34,000 and 138,000 people would require hospitalization, and between 11,000 and 58,000 people would die in Canada during an influenza pandemic.¹²

Figure 1
Estimated impact of Pandemic Influenza in Canada



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These tables, developed by the Public Health Agency of Canada, show the approximate number of people who would become ill during a 15 to 35 percent attack rate pandemic wave affecting the general population. The model used to calculate these numbers does not factor in the potential impact of a vaccine or antiviral drugs, which measures would reduce illness and deaths. Clearly, the number of deaths, as in any influenza season, really depends on how the virus behaves, how it spreads and what can be done to limit these factors.

Table 1
Estimated number of cases by outcome

Outcome	Attack Rate 15%			Attack Rate 35%		
	Mean number	5 th Percentile	95 th Percentile	Mean number	5 th Percentile	95 th Percentile
Death	17,768	10,544	24,954	41,459	24,603	58,227
Hospitalization	46,639	34,042	59,166	108,824	79,431	138,053
Outpatient Care	2,086,327	2,027,496	2,145,282	4,868,097	4,730,825	5,005,657
Ill, no formal care	2,394,443	2,335,458	2,455,967	5,587,035	5,449,401	5,730,591
TOTAL	4,545,177	4,407,545	4,685,464	10,605,415	10,284,265	10,932,623

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¹² These numbers are estimates only and are meant to provide a picture of the magnitude and potential impact of the next influenza pandemic.

It has been observed that an influenza pandemic usually spreads in two or more waves, either in the same year or in successive influenza seasons. A second wave may occur within three to nine months of the initial outbreak wave and may cause more serious illnesses and deaths than the first. In any locality, the length of each wave of illness is likely to be six to eight weeks.

Business continuity plans may need to be reviewed to ensure that they are robust enough to account for significant staff absences and other pandemic-related risks.

Appendix 4: Key Elements of an Organization-Specific Business Continuity Plan for Pandemics

The material in this appendix draws together key points from the planning guide, in a form that may assist individual businesses and other organizations in preparing their own business continuity plan for pandemic.

The material is necessarily generic, and will need to be adapted to meet the circumstances and needs of individual businesses and organizations.

1. Overview and Context

Pandemic overview

- National and community perspective
- Anticipated demands for the goods / services that you provide
- Similarities to and differences from other emergencies

Focus

- The focus of this Plan is on reduction of the impact of a pandemic by:
 - ✓ *Reducing the **incidence***
 - ✓ *Delivering an **effective response***
- In order to achieve this impact reduction, comprehensive planning (readiness) arrangements must be in place
- The Plan needs to consider the appropriate audiences
 - ✓ *Internal (Boards, Management and Staff)*
 - ✓ *External agencies*

Define the structure and key roles *(link with existing Business Continuity Plans)*

- Leadership and direction within the organization in the event of a pandemic
 - ✓ *Who makes the strategic decisions in relation to pandemic?*
 - ✓ *Who communicates to whom internally and externally?*
- Main expectations of staff with key roles
- Allocation of other specific responsibilities (including ownership of this plan and its maintenance)

2. Risk Identification and Analysis

Develop summary statements *(including organizational risk and potential impact corresponding to each pandemic stage, with reference to the Health Canada scenarios)*

- Include the potential impacts on other agencies that you have close relationships with, including
 - ✓ *Suppliers of materials and services*
 - ✓ *Sub-contractors (e.g. essential maintenance)*
- Create and implement plans as per the outline in the following section

3. Required Preparations

Interpandemic and Pandemic Alert Periods – Develop the likely response processes and measures

(with reference to Table 2 of this guide)

General Planning

- Review existing business continuity plans and develop pandemic-specific procedures as appropriate
 - ✓ Identify essential services (including contractors), facilities/plants, other production inputs
 - ✓ Plan for up to 50% staff absences for periods of 2-3 weeks at the height of the pandemic, and lower levels of staff absences for a few weeks on either side of the pandemic
 - ✓ Assess core staff and skill requirement needs, and ensure essential positions are backed-up by an alternative staff member
 - ✓ Identify ways to increase “social distancing” in the workplace, reduce movement etc.
 - ✓ Consider organizational policies to encourage the sick to stay at home; and enable staff to work from home
 - ✓ Identify existing arrangements that might assist pandemic outbreaks
- Establish mechanisms for alerting staff to change in pandemic status
- Establish procedures and triggers for escalation of response

Advanced Planning (Pandemic Period)

- Alert staff to change in pandemic status
- Identify ways to minimize illness amongst staff and customers, and consider how essential messages (e.g. basic hygiene) can be communicated to staff
- Identify needs for PPEs and cleaning equipment, and check air conditioning. Purchase additional contingency supplies

4. Response Actions

Pandemic Period – Implement the specific response processes and measures

Active Response

Border Management

- Alert staff to change in pandemic status
- Activate staff overseas travel restrictions
- Review/test essential business continuity measures
 - ✓ Process familiarization, including training for those with specific roles

Pandemic Management

- Alert staff to change in pandemic status
- Activate measures to minimize introduction and/or spread of influenza in work place (post notices; social distancing, managing ill staff members, workplace cleaning, etc.)

- Activate essential business continuity measures and establish a regular review process
 - ✓ Review and update risk and impact assessment
 - ✓ Set response objectives and identify specific actions required
 - ✓ Decide activities/services to be maintained/discontinued; who needs to come to work
 - ✓ Communicate with staff to promote confidence in the workplace and externally to inform other agencies that you have close relationships with
 - ✓ Review regularly (e.g. weekly)
- Activate contact tracing where staff become ill at work
- Activate process for recovered staff members to return to work

5. Recovery Processes

Post-Pandemic Period – Recovery

- Establish criteria and process for agreeing to return to business as normal
- Review and update risk and impact assessment
- Communicate internally with staff and externally with related agencies
- Manage return to business as normal
- Conduct full debrief process(es)
 - ✓ Update pandemic plan as appropriate
 - ✓ Update Business Continuity Plan as appropriate

The desired outcome of the Plan is to achieve effective preparation and response through *clarity, process familiarity* and *confidence* for staff and other stakeholders.

Appendix 5 Sample Business Continuity Contact List for Pandemic Influenza

PLAN TO STAY IN BUSINESS

If this location is not accessible we will operate from location below:

Business Name

Business Name

Address

Address

City, Province

City, Province

Telephone Number

Telephone Number

The following person is our primary crisis manager and will serve as the company spokesperson in an emergency.

If the person is unable to manage the crisis, the person below will assume management duties:

Primary Emergency Contact

Secondary Emergency Contact

Telephone Number

Telephone Number

Alternative Number

Alternative Number

E-mail

E-mail

PANDEMIC EMERGENCY CONTACT INFORMATION

Public Health Agency Canada Toll-free Number: 1-800-484-8302

Local Health Canada Office Numbers: http://www.hc-sc.gc.ca/home-accueil/contact/branch_sub_e.html

Emergency Contact Numbers: _____

SAMPLE BUSINESS CONTINUITY CONTACT LIST FOR PANDEMIC INFLUENZA

EMERGENCY PLANNING TEAM

The following people will participate in emergency planning and crisis management:

WE PLAN TO COORDINATE WITH CUSTOMERS AND SUPPLIERS

The following customers and suppliers will participate in our emergency planning team:

OUR CRITICAL OPERATIONS

The following is a prioritized list of our critical operations, staff and procedures we need to recover from a pandemic influenza emergency:

Operation	Staff in Charge	Action Plan
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

SAMPLE BUSINESS CONTINUITY CONTACT LIST FOR PANDEMIC INFLUENZA

SUPPLIERS AND CONTRACTORS

Company Name: _____

Street Address: _____

City: _____ Province: _____ Postal Code: _____

Phone: _____ Fax: _____ E-mail: _____

Contact Name: _____ Account Number: _____

Materials/Service Provided: _____

ALTERNATE SUPPLIER

Company Name: _____

Street Address: _____

City: _____ Province: _____ Postal Code: _____

Phone: _____ Fax: _____ E-mail: _____

Contact Name: _____ Account Number: _____

Materials/Service Provided: _____

If this company is not available, we will obtain supplies/materials from the following:

Company Name: _____

Street Address: _____

City: _____ Province: _____ Postal Code: _____

Phone: _____ Fax: _____ E-mail: _____

Contact Name: _____ Account Number: _____

Materials/Service Provided: _____

SAMPLE BUSINESS CONTINUITY CONTACT LIST FOR PANDEMIC INFLUENZA

COMMUNICATIONS

We will communicate our emergency plans with co-workers in the following way:

In the event of a pandemic influenza we will communicate with employees in the following way:

CYBER SECURITY

To protect our computer hardware, we will:

To protect our computer software, we will:

RECORDS BACK-UP

_____ is responsible for backing up our critical records including payroll and accounting systems.

Back-up records including a copy of this plan, site maps, insurance policies, bank account records and computer back-ups are stored on-site _____

Another set of back-up records is stored at the following off-site location:

SAMPLE BUSINESS CONTINUITY CONTACT LIST FOR PANDEMIC INFLUENZA

EMPLOYEE EMERGENCY CONTACT INFORMATION:

The following is a list of our co-workers and their individual emergency contact information:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

ANNUAL REVIEW

We will review and update this business continuity plan in _____.

Appendix 6 Alcan Inc.: Avian Influenza Preparedness

The following presentation is a brief overview of Alcan's overall crisis management plan for influenza pandemic, incorporating the company's medical preparedness, business continuity plan, communications strategy, and the four alert levels and corresponding actions for employees through each step of the process.

Alcan created a Special Committee composed of **EHS FIRST** medical officers, corporate security members and communication employees to study the potential threat caused by an avian influenza outbreak and/or pandemic and to prepare Alcan's reaction should such an outbreak occur. The main role of the committee is to monitor the situation, advise Alcan senior management, and disseminate corporate information.

While Alcan's plan is more targeted towards large businesses, many of the best practices outlined in Alcan's model can be adapted for small and medium-sized businesses. SMEs may not have the resources to follow all of the suggested activities, however, it is recommended that every business, regardless of size, develop at least a basic plan for business pandemic influenza, incorporating the central recommendations.

List of Acronyms:	
BG:	<i>Business Group. BG Heads of Communications are the communication leaders in each business group with the responsibility of disseminating information within their groups.</i>
CMC:	<i>Crisis Management Centre</i>
EHS FIRST:	<i>Alcan's Environment, Health and Safety (EHS) policy and global management system (see http://www.alcan.com.au/home/content.asp?PageID=333&pnav=310).</i>
'Message from Travis':	<i>Travis Engen, President and CEO of Alcan Inc., reference to a stand-by message to be used if Alcan needs to upgrade the alert level to yellow or higher.</i>
SIRDB:	<i>Significant Incident Report Database.</i>

This presentation contains material drawn from a pandemic management plan recently prepared by Alcan. The support that Alcan has provided is acknowledged. Alcan's material is provided on the basis that it is drawn from a specific internal planning document created to address circumstances that arise within its specific business. Alcan shall not be liable for loss suffered by any person resulting in any way from the use of, or reliance on, this material.