



ISSUE BRIEF FOR ORGANIZATIONS

Pandemic Flu and the Need for Contingency Planning



Introduction

Public health experts warn that we are overdue for a flu pandemic. They cannot predict when this will happen, but urge everyone to take steps now to prepare. Planning for a pandemic is a huge and complex task. It is not solely the responsibility of government. We all have a part to play to ensure that Canada is ready to face, and cope, with this eventuality. Planning for a pandemic will also help prepare for other emergencies.

Businesses and organizations in the non-governmental sector have an important role to play by informing their staff members and families, the people they serve, partner organizations, and the broader public about pandemic flu preparedness.

The purpose of this issue brief is to provide background information about the risk of pandemic flu, preparedness planning in Canada, and the potential role of organizations in this effort. Its goal is to supplement planning that is already underway and, more importantly, provide guidance for organizations that do not yet have contingency planning in place for a flu pandemic.

The brief is broken down into four sections:

- 1) Background on the risk of a flu pandemic;
- 2) An overview of flu pandemic planning in Canada;
- 3) Guidelines on contingency planning for a pandemic; and
- 4) Further resources for organizational contingency planning.



1. The Risk of a Flu Pandemic

Defining “pandemic”

A pandemic is a disease outbreak that spreads worldwide. This happens when a new disease appears with the ability to spread easily from person to person.

With modern living and travel, new diseases can spread easily between people and from one part of the world to another. The time it takes to fly from one side of the world to the other is shorter than the time most diseases need to incubate.


Influenza – the Virus

Influenza (flu) is a common respiratory infection caused by a virus. It is highly contagious. It spreads through droplets released when an infected person coughs, sneezes, or talks. Infected droplets can be breathed in through the mouth or nose or can land on the eyes of someone in the vicinity. The flu virus can live on hands for about 5 minutes and on hard surfaces for up to 48 hours. This means the virus can be picked up by touching a surface or hands that have been contaminated. A person infected with the flu is contagious for 24 hours before they show any symptoms. An infected person can continue to spread the infection for up to 7 days.

New Flu Viruses – Pandemic Potential

There are several different flu viruses in circulation during a single flu season. Some are more virulent than others. The flu virus is prone to change. This ability is central to its survival and explains why there is a new flu shot every year. The flu virus changes in two ways: small, minor changes and sudden, major changes. These major changes have happened throughout human history. They seem to occur three or four times a century.





The flu virus mutated in a sudden, major way three times in the 20th century. This led to pandemics in 1918, 1957 and 1968. The most deadly was in 1918. It caused widespread sickness and killed about 50,000 Canadians and at least 20 million people worldwide.

When a virulent new flu virus appears with the ability to spread easily from person to person, we are at risk of a pandemic. Because the virus is new, the human immune system does not know how to fight it. If localized outbreaks are not controlled, there is the potential for the infection to spread and develop into a pandemic.


Pandemic Predictions

No one knows when the next flu pandemic will occur. But it will. History shows that flu pandemics happen every few decades. The flu virus is prone to change and is highly infectious. This combination of features, and past experience, suggests that the human species will face another flu pandemic in the near future. Besides the question of when it will happen, what remains unknown is how virulent it will be, who will be most susceptible to it, and the best means of prevention and treatment.

Pandemic Surveillance

Around the world, experts monitor flu outbreaks in humans and animals. They watch for strains that could cause trouble. H5N1 is the virus of most concern at this time.

H5N1 is an avian or bird flu virus. There are hundreds of strains of bird flu, but only a few make humans sick, among them H5N1. It was first found in humans in 1997, following the death of a three-year old boy in Hong Kong. Although it is rare for a virus to jump from animal to human, when that happens it can be deadly. Since 1997, the human cases of H5N1 have steadily grown. An outbreak that began in 2003 has infected over 250 people in 10 countries. More than half of them have died, demonstrating just how deadly H5N1 is to humans.



So far, H5N1 has spread to humans from direct contact with dead or sick birds or their contaminated feces. It does not spread easily from person to person yet. But each time there is a new human case, H5N1 has a chance to learn how to spread from person to person. That's why H5N1 has experts worried.

H5N1 has the potential to trigger the next human flu pandemic but it is not the only candidate. Other triggers include: a different strain of bird or animal flu that jumps the species barrier; the mixing of animal and human flu viruses; or a major mutation in the human flu virus. Any of these triggers could cause a mutation in the virus creating a new, potentially deadly strain of the flu that would wreak havoc if it spread easily among humans with no immunity to it.

SARS – A Warning and Call to Action



The 2003 SARS outbreak is a warning for us all. It showed how quickly a new virus can arise and spread, making people very ill and causing some to die. Over 8,500 people were infected. More than 900 died.

Outside of Asia, Canada was the country affected most – and Toronto the city with the most cases. Thousands of people had to go into quarantine. Hundreds became ill. And 44 died, including three health care workers. In affected countries, SARS strained the nations' social, mental, and economic health. The experience of SARS indicates the necessity of being prepared. A flu pandemic would dwarf the SARS outbreak.

Impacts and Effects of Pandemic Proportions



The impact of a flu pandemic depends on the virulence of the new virus, how quickly it spreads, who is most susceptible, and how effective the response to it is.

These details will remain unknown until the next flu pandemic has started. However, for the purpose of planning a response, the Government of Canada works on the basis of several assumptions: the next flu pandemic will likely emerge outside of Canada, at any time of the year; it will be present in Canada within 3 months; the first peak of illness will be within 2 to 4 months after its arrival in Canada; the first wave will probably be the most severe affecting multiple locations at the same time; there will be two or more waves lasting 6-8 weeks; the pandemic could last up to 18 months.

Canada's planning is based on a pandemic of mild to moderate severity, like the outbreaks in 1957 and 1968. The government projects that the majority of the population (over 70%) will be infected with pandemic flu; up to 35% will be clinically ill, requiring time off work, treatment and possibly hospitalization. Up to half of those infected will seek outpatient care; 1% will be hospitalized; and 0.4% will die.

The health system will be tested by a flu pandemic. Medical clinics, emergency rooms, and hospitals could be overwhelmed. Most people who contract pandemic flu will treat it at home. However, it is anticipated that hospitals will have to cope with a surge of patients with symptoms of pandemic flu, some of whom require treatment and hospitalization. This will be in addition to the routine demands on health care.

A flu pandemic will disrupt daily life. Sickness, or the fear of getting sick, might cause people to stay away from work. Transportation services – local and long distance – could be reduced. Grocery stores, pharmacies, and banks might have limited supplies if delivery services are reduced, curtailed or cancelled. Schools and daycare centres could be forced to close. Public events might be cancelled.




2. Pandemic Planning in Canada

The Government of Canada has been planning for a flu pandemic since 1983. Canada's aim in a pandemic is to limit illness and death and reduce the risk of social chaos.

The government has a detailed plan that outlines its preparation for and response to a flu pandemic. It is a flexible document that is revised as information, including scientific evidence, changes. Seven key components make up the plan:

- i. **Surveillance and laboratory preparedness:** Canada is part of a global network of experts who detect new flu viruses and monitor animal and human flu outbreaks.
- ii. **Development of a pandemic vaccine:** Canada has committed to produce enough vaccine for its population. It has secured a domestic producer for this purpose. A pandemic vaccine cannot be developed until the pandemic strain has emerged. Production will take three to six months. It is unlikely that a vaccine will be available during the first wave of the pandemic in Canada. It would probably be given to health care and other essential workers before the general public.
- iii. **Antiviral stockpiling:** Canada is building a national stockpile of antivirals, large enough to treat the estimated number of Canadians who will require medical treatment during a pandemic. If taken within 48 hours of the first signs of the flu, antivirals can shorten the length of illness and reduce serious complications.



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- iv. **Public health measures:** Canada is raising awareness of public health and infection control practices. During a pandemic, specific measures may be taken to control the spread of infection: cancelling public events, closing schools and daycare centres, and isolating people infected with the virus.
 - v. **Support for the health services:** Canada anticipates greater demands on the health care system during a flu pandemic and is providing health care workers with guidelines for diagnosis, case management, and personal protection.
 - vi. **Communications:** Canada has a national communications strategy to provide the population with accurate, timely, consistent information based on the best current evidence in preparation for, during and after a flu pandemic.
 - vii. **Emergency preparedness and coordination:** Canada recognizes that the best response to an emergency is one that is planned in advance and well-coordinated. The Public Health Agency of Canada and the Public Safety and Emergency Preparedness Canada are working with provincial and territorial governments and partners in the non-governmental sector to coordinate the response to national public health emergencies.



3. Contingency Planning Guidelines

Preparing for a flu pandemic is a national effort. To be ready, we must all do our part. That includes organizations, large and small, corporate and non-profit. A flu pandemic will be indiscriminating, with the potential to infect anyone. To cope with this eventuality, organizations are advised to develop continuity plans that will enable them to keep their critical services going during the next flu pandemic.

The Government of Canada advises employers to plan for a workplace absenteeism rate of up to 25% in a two-week peak period during each pandemic wave. In a normal winter, workplace absenteeism is 8%. Absenteeism can be expected to vary by locality, industry, size of organization, and according to the degree of social interaction within the workplace. Absenteeism may be caused by: staff sickness; staff playing a caregiver role for a sick relative or caring for children whose daycare or school has been temporarily closed; or workplace avoidance for fear of being infected.

Continuity planning is a proactive process that all workplaces are encouraged to undertake to ensure the delivery of critical services during an emergency, like a flu pandemic. As a process, it requires the identification of an organization's critical services, an assessment of its resources and personnel, and a consideration of how the organization would cope when faced with an emergency situation. It is a process that anticipates emergencies and thinks through mitigating strategies during periods of calm, for implementation during times of crisis.

Organizations are encouraged to put contingency planning in place to account for the risk of a flu pandemic. The following is a brief outline of responsibilities and considerations to bear in mind while planning contingency for a flu pandemic. It is followed by a list of online resources to help organizations develop continuity plans.

Key responsibilities in planning for a pandemic:

- Plan contingency for critical services with reduced staff (identify critical services; personnel requirements; supply chain needs etc.);
- Involve staff in the planning process;
- Provide for the health and safety of staff (communicate the importance of infection control; consider the use of “social distancing” practices during a pandemic: staff working from home, fewer face-to-face meetings, protective equipment etc.).

Key considerations in planning for a pandemic:

- Absenteeism and “presenteeism” – staff showing for work when sick – (consider the reasons for these, problems they may cause, and compensation for time off work);
- Reduced demand on services during a pandemic;
- Increased demand on services (e.g. social services sector) and how they could be met;
- Supply chain issues to plan for the continuation of critical services.





4. Resources on Contingency Planning and Pandemic Preparedness

Canadian Centre for Emergency Preparedness. Tools and templates for continuity planning and emergency preparedness. Links to emergency preparedness planning information for small businesses.

Available at www.ccep.ca

Canadian Public Health Association. *Flu Pandemic Communications Toolkit.* Tools for organizations to communicate information to their employees about pandemic preparedness.

Available at www.pandemic.cpha.ca

International Centre for Infectious Diseases. *Pandemic Influenza Planning Tool Kit for Business and Employers.* Guidelines and tools to help employers plan for a pandemic.

Available at www.pandemicbusinesstoolkit.ca/

Public Safety and Emergency Preparedness Canada. *A Guide to Business Continuity Planning.* Guidelines and tools on business continuity planning.

Available at www.psepc-sppcc.gc.ca/prg/em/gds/bcp-en.asp





For **more information**, go to www.pandemic.cpha.ca or call **1-800-454-8302**.

A message from the Canadian Public Health Association.