



*This article was produced in collaboration with the Public Health Agency of Canada.*

## PREPARING FOR AN INFLUENZA PANDEMIC

### The Issue

A pandemic is a worldwide outbreak of a specific disease which affects a large proportion of the population. There is no influenza pandemic activity anywhere in the world at this time, but scientists agree there will be a global outbreak of influenza (flu) sooner or later.

The federal, provincial and territorial governments in Canada are working on pandemic preparedness, and many municipalities, companies and health care facilities also have plans in place. Although there is no need to panic, it is a good idea for Canadian families to take small steps now that will help them respond, if necessary, to a flu pandemic, as well as other emergency situations.

### Background

People are exposed to different strains of influenza viruses many times during their lives. Even though the virus changes, a previous case of influenza may offer you some protection against infection caused by a similar strain of the virus. However, in the past it has been observed that three to four times each century, for unknown reasons, a radical change takes place in the influenza A virus, causing a new strain to emerge. A pandemic flu virus can emerge if an avian influenza (bird flu) virus mixes with a human flu virus or if an existing virus mutates, creating a new strain that can infect humans.

Since people have no immunity against the new strain, it can spread rapidly around the world, causing a pandemic. The last three influenza pandemics occurred in 1918-1919, 1957-58 and 1968-69. It is impossible to predict exactly when the next one will hit, but experts agree it is overdue.

Concerns that Avian Influenza H5N1 Asian strain may become Pandemic Influenza

Wild waterfowl are natural carriers of influenza A viruses. Usually, the avian influenza viruses carried by wild birds cause them little or no harm. Other birds (e.g., domestic poultry) and some animals (e.g., pigs) are also able to contract and transmit the bird flu virus. Bird flu viruses caused by wild birds do not generally infect or cause harm in humans.

Currently, a strain of avian influenza called H5N1 (Asian) is circulating in Southeast Asia, and parts of Europe and Africa. This strain is deadly to poultry and has infected many poultry populations. A limited number of people have been infected, mainly through close contact with infected poultry.

At the moment, there is no evidence that the H5N1 avian flu virus can spread easily from human to human. However, there are concerns that this virus could mutate – or, if someone infected with human influenza also becomes infected with H5N1 avian influenza, the viruses could “mix,” creating a new strain. If the new strain spreads easily from person to person, the virus could spread rapidly around the world, causing an influenza pandemic.

### The Potential Effects of Pandemic Influenza

It is very difficult to predict the impact of a pandemic, since no one knows how the virus would behave or how serious the pandemic would be. During a severe flu season, as many as 8,000 Canadians die from influenza and its complications; on average there are 4,000 deaths from annual flu. In a moderately severe pandemic, it is estimated that between 11,000 and 58,000 deaths may occur in Canada. These numbers are based on an assumption that the virus would cause illness in 15 to 35 per cent of the population.

In addition to deaths, a pandemic may cause significant illness and social disruption. It is important for Canadian families to plan ahead for a pandemic, because services provided by hospitals and clinics may be reduced or unavailable. Also, grocery stores and pharmacies may have limited supplies and banks may close.

### Minimizing Your Risk - Preparing for an Influenza Pandemic

Start preparing your family for the possibility of an influenza pandemic by getting informed and thinking



about how this event could affect your day to day life. Many of the steps you can take are just as important in non-pandemic situations and can be implemented now. For example:

- Practice "good respiratory etiquette" to help prevent the spread of influenza. Use a tissue, or raise your arm to your face to cough or sneeze into your sleeve. Stay home when you are sick.
- Wash your hands frequently or use an alcohol based sanitizer if no water is available. Teach your children to do these things, too. Remember, good respiratory etiquette combined with an influenza vaccination (flu shot) is the most effective way to avoid getting and spreading the flu.
- Follow general emergency preparedness guidelines. This means having an emergency plan. You should also have an emergency kit with the right supplies to take care of your family, with no outside assistance, for at least 72 hours. The kit should contain food that will not spoil, a can opener, water, medications and first aid supplies, as well as matches, a flashlight, a battery-operated radio, extra batteries, some cash, etc. See the Need More Info? section at the end of the article for links to resources on emergency preparedness.

Since no one can predict what would happen in a pandemic, you must be ready to adapt as the situation evolves. It is important to get informed and stay informed.

- Visit your city or municipal Web site or call the public health department to ask if your community has a pandemic plan. If one exists, ask for a copy (or download it, if applicable). You can do the same at the provincial/territorial and national level. (See the Need More Info? section for more on the national pandemic preparedness plan.)
- Keep a list of important telephone numbers nearby, including numbers for municipal, provincial or territorial health information lines. Also, bookmark reliable Internet Web sites (e.g., municipal, provincial/territorial and Government of Canada sites)

on your computer, so you can follow developments as they unfold.

- During a pandemic, childcare facilities and schools may temporarily close. Be prepared to make other arrangements for childcare should this be necessary.
- Transportation services may be disrupted. If you use public transit to get to work or to travel to others who rely on your care, consider a contingency plan to deal with these situations.

## The Government of Canada's Role

The Government of Canada has worked in partnership with provincial and territorial governments, as well as health care professionals and other key stakeholders, to develop the Canadian Pandemic Influenza Plan for the Health Sector. The Plan is constantly reviewed and updated to ensure that it is current with the latest developments and science. It covers key areas of pandemic planning and response, including monitoring, vaccine and antiviral programs, emergency services and risk communications.

To help Canadians stay up to date on developments, the government has also set up Web portal on Pandemic Influenza. The portal gives you one-stop access to Government of Canada information on preparedness and response to a potential influenza pandemic.

## Need More Info?

Visit the Government of Canada's Pandemic Influenza Web portal, at: [www.influenza.gc.ca/index\\_e.htm](http://www.influenza.gc.ca/index_e.htm)  
The portal features links to travel advisories and fact sheets, as well as a copy of the Canadian Pandemic Influenza Plan for the Health Sector. You can also call the Pandemic Influenza Information Line (toll-free in Canada) at 1-800-454-8302.

There is also pandemic influenza information for individuals and families, including a Flu Prevention Checklist, on the Public Health Agency of Canada's Web site at: [www.phac-aspc.gc.ca/influenza/fam\\_e.html](http://www.phac-aspc.gc.ca/influenza/fam_e.html)

For information specific to First Nations and Inuit communities go to: [www.hc-sc.gc.ca/fnih-spni/diseases-maladies/influenza/influenza\\_e.html](http://www.hc-sc.gc.ca/fnih-spni/diseases-maladies/influenza/influenza_e.html)

For information on avian flu see Health Canada's Avian Flu Web site at: [www.hc-sc.gc.ca/dc-ma/avia/index\\_e.html](http://www.hc-sc.gc.ca/dc-ma/avia/index_e.html)

For information on avian flu and animal health, see the Canadian Food Inspection Agency's Avian Flu Web site at: [www.inspection.gc.ca/english/anim/heasan/disemala/avflu/avflue.shtml](http://www.inspection.gc.ca/english/anim/heasan/disemala/avflu/avflue.shtml)

For brochures and fact sheets about preparing for an emergency, see Canada's Emergency Preparedness Week Web site at: [www.epweek.ca/index\\_e.asp](http://www.epweek.ca/index_e.asp)

Also, see the following It's Your Health articles:

Preparing Your Family for an Emergency at: [www.hc-sc.gc.ca/iyh-vsv/life-vie/emerg-urg\\_e.html](http://www.hc-sc.gc.ca/iyh-vsv/life-vie/emerg-urg_e.html)

Influenza at: [www.hc-sc.gc.ca/iyh-vsv/diseases-maladies/flu-grippe\\_e.html](http://www.hc-sc.gc.ca/iyh-vsv/diseases-maladies/flu-grippe_e.html)

Avian Influenza at: [www.hc-sc.gc.ca/iyh-vsv/diseases-maladies/avian-aviare\\_e.html](http://www.hc-sc.gc.ca/iyh-vsv/diseases-maladies/avian-aviare_e.html)

For pandemic preparedness activities in your Province or Territory go to: [www.influenza.gc.ca/pt\\_e.html](http://www.influenza.gc.ca/pt_e.html)

For more information visit the World Health Organisation (WHO) Web site at: [www.who.int/csr/disease/avian\\_influenza/phase/en/index.html](http://www.who.int/csr/disease/avian_influenza/phase/en/index.html)

For additional articles on health and safety issues go to the It's Your Health Web site at: [www.healthcanada.gc.ca/iyh](http://www.healthcanada.gc.ca/iyh)  
You can also call toll free at 1-866-225-0709 or TTY at 1-800-267-1245\*