



# Alberta's Plan for Pandemic Influenza

November 2003

# PANDEMIC INFLUENZA: ALBERTA'S RESPONSE PLAN 2003

# What is pandemic influenza?

The word pandemic is used to describe diseases that cause worldwide outbreaks of illness involving a large proportion of the population. Pandemic influenza refers to the emergence of a new strain of influenza A virus that causes a large number of cases of illness and death in people around the globe.

Medical experts predict that an influenza pandemic could occur at any time. Historic evidence suggests that pandemics occur three to four times a century. In the last century, there were three influenza pandemics:

- The Spanish Flu, in 1918-19;
- The Asian Flu, in 1957-58; and
- The Hong Kong Flu in 1968-69.

In each of these pandemics, the greatest increase in death rates occurred among people less than 60 years of age.

Most people become ill with mild forms of influenza at some point

in their lives. Because of this, they develop some immunity to the disease. New strains of influenza virus emerge regularly. Most of these are slight variations of a previous strain, and a person's existing immunity provides some protection against severe illness. New flu vaccine is developed every year to provide more complete protection against these new strains. For this reason, flu vaccine is given annually, beginning in early fall.

In a pandemic, there is a significant change in the flu virus, so existing immunity provides little protection. Existing vaccines will also be of limited value, and a new vaccine may take longer than usual to develop. As a result, a pandemic influenza will spread quickly, cause widespread outbreaks of disease, and will likely lead to significant numbers

of hospitalizations and deaths. Typically, outbreaks will occur in waves, with a second outbreak three to nine months following the first.

In a pandemic year, compared to a typical year, the Government of Alberta expects:

- 4 to 7 times as many visits to physicians and emergency rooms due to influenza;
- 4 to 7 times as many hospitalizations due to influenza; and
- 8 to 20 times as many deaths due to influenza.

It is projected that up to 2.5 million Albertans could be infected, with up to 1.3 million

becoming ill.

The effects of a pandemic would be different than a natural disaster, because a large number of people in workplaces will be sick with the flu. High rates of absenteeism would affect the ability of organizations to provide essential services such as community businesses (e.g.

grocery stores or service stations) and public safety services (e.g. fire, police and ambulance).

The Spanish Flu occurred in three waves, and killed 30,000 to 50,000 Canadians and 20 to 40 million people worldwide. In Alberta, 38,000 people were reported ill, and 4,000 died out of a population of 579,000.

# We're prepared

When an influenza pandemic arrives, all Albertans—including those who provide essential services and health care—will be at risk of getting ill. The development of a provincial plan to prepare for an influenza pandemic will reduce the impact of the disease but not eliminate it.

In 1999, the Government of Alberta began work to prepare the health system and the province for an influenza pandemic. The work was led by Alberta Health and Wellness and involved a range of partners, including other provincial ministries, regional health authorities, municipalities,

emergency response agencies, utility and transportation companies and professional organizations. Our response plan will be used in coordination with the Canadian Pandemic Influenza Contingency Plan, prepared by a partnership of federal, provincial and territorial governments.

The goal of Alberta's plan is to reduce the number of influenza cases and deaths and minimize disruptions to daily life by providing access to appropriate prevention, care and treatment.

The plan outlines roles, responsibilities and key activities before, during and following an influenza pandemic. It is a work in progress, and will be updated and added to as situations change.

# Who is responsible for what in a pandemic?

An influenza pandemic is an international health event. International, federal, provincial and local agencies will work together to respond.

## International:

• The World Health Organization (WHO) watches for the emergence of new strains of influenza throughout the world. If a pandemic influenza strain emerges, it will notify federal health authorities and provide information to governments, the media and the public on immunization and anti-viral medication use.

## Federal:

- Health Canada will provide nationwide coordination for the influenza response. They will monitor the spread of the disease in Canada, provide links with the WHO and other nations, and obtain and distribute vaccines.
- A National Pandemic Influenza Committee with representation from provincial, territorial and the federal governments will coordinate a national influenza response.

## Provincial:

- Alberta Health and Wellness will lead the health sector response. During an influenza pandemic, the department will establish a Pandemic Response Centre. It will support coordination among regional health authorities, coordinate vaccine delivery across the province, provide information, collect data on the spread of the disease in Alberta and help resolve any health care issues that may arise.
- Alberta Municipal Affairs will lead the response regarding the non-health consequences of a pandemic, primarily through Emergency Management Alberta (EMA). EMA will communicate with municipalities, monitor the effect of the pandemic on essential services, coordinate volunteer activities and federal assistance programs and monitor the need for support among families of victims.
- Each provincial government department will have contingency plans for the delivery of provincial services, and will assist Alberta Health and Wellness, Emergency Management Alberta, regional health authorities and municipalities respond to a pandemic.

#### Local:

- Regional health authorities will provide services to meet priority health needs. In addition, they will provide information on the number of cases, hospitalizations and deaths from influenza, deliver vaccines and anti-viral drugs and establish and maintain communications in their regions.
- Municipal governments will set priorities for maintaining public safety and other essential public services (fire, police, waste management, water and utilities), support regional health authorities in providing information to the public and, where necessary, close public buildings and establish alternative care sites for the delivery of health care and immunization to the public.

# THE PLAN

Alberta's Pandemic Influenza Plan is divided into three phases:

- Pre-Pandemic Phase: a new type of influenza virus has not been detected anywhere or a new strain has been found only in a small number of people, most likely outside of Canada.
- Pandemic Phase: the WHO declares that an influenza pandemic is underway and the new flu is detected in Canada. There will be localized outbreaks of the flu to start, followed by broader outbreaks that will occur in waves.
- Post-Pandemic Phase: the number of cases and deaths from the flu returns to normal levels and the pandemic is declared to be over.

Action will be taken in the following key areas:

- Surveillance:
- Immunization;
- Health services;
- Emergency preparedness; and
- Communications.

## **Pre-Pandemic Phase**

During this phase, activity focuses on planning for a possible pandemic and taking steps to prevent the spread of a pandemic influenza strain should it arrive in Alberta.

## **Surveillance**

Surveillance is the collection, analysis and sharing of information about influenza. It is used to determine when, where and which influenza viruses are circulating, and their severity. Surveillance is continuous: every year, every flu season, the disease is monitored.

The first level of surveillance is international, through the WHO's global influenza network. The second level of surveillance is national, through

the National Microbiology Laboratory, Fluwatch (involving ministries of health, laboratories, physicians and the federal Centre for Infectious Disease Prevention and Control) and the Sentinel Influenza Surveillance Program.

At the provincial level, surveillance takes several forms:

- The Provincial Laboratory of Public Health identifies new strains of influenza and where they are occurring. Early identification of a new strain allows quicker action to prevent and control the spread of influenza.
- Regional health authorities monitor and report to Alberta Health and Wellness on the presence of influenza-like illness—as shown by things like school absenteeism and outbreaks in hospitals or long-term care centres.
- A sentinel physician system, under the Alberta Viral Watch Program, monitors the outbreak of influenza through reports from physicians throughout the province. The program detects cases that may not be seen in hospitals or other public facilities.

#### **Immunization**

Each fall, regional health authorities and Alberta Health and Wellness promote routine immunization with influenza vaccine, especially for at-risk groups, to decrease illness and death due to flu in these persons.

Alberta Health and Wellness, regional health authorities and Health Canada will work together on plans for distribution of a vaccine during a pandemic influenza.

Priority groups for receiving vaccine, and the number of people in those groups, will be identified.

Regional health authorities will plan for large-scale immunization programs. They will work with municipal governments to identify possible sites for providing vaccine to large numbers of people.

## **Health Services**

Regional health authorities, working with Alberta Health and Wellness, will develop plans to make the best use of health care professionals, equipment and facilities during a pandemic. These will include plans for dealing with other health care demands, replacement of key personnel, training alternate health care workers and managing stress on health professionals.

Regional health authorities will work with municipal authorities to identify possible sites, outside of hospitals, to care for the large number of people who may become ill with influenza.

# **Emergency Preparedness**

All provincial ministries and municipal governments will have contingency plans for an influenza pandemic, which will include plans to keep essential services operating and identification of back-ups for key personnel.

A "table top" or demonstration exercise in responding to a pandemic will be conducted and analyzed, to help ensure that provincial ministries, regional health authorities and municipalities have both plans and written procedures that are suitable for a pandemic influenza situation.

Businesses and employers will receive information about what a pandemic is and the importance of developing plans for dealing with its impact.

#### **Communications**

The Government of Alberta wants to ensure that all Albertans are aware of a pandemic, the government's plans to manage a pandemic and how to prevent the spread of disease and care for themselves and their families. Ideally, Albertans will be well prepared before a pandemic emerges:

 The public and key organizations will receive influenza information and educational materials, explaining what a pandemic is and promoting prevention and self-care for individuals ill with influenza.

- The Web sites of both Alberta Health and Wellness and Alberta Municipal Affairs will contain information on pandemic influenza.
- All government departments and professional associations, as well as publications that are read by groups like parents and seniors, will be given information.
- Regional health authorities, physicians and health care workers will receive provincial guidelines and information on how the province plans to respond to a possible pandemic.

## **Pandemic Phase**

During the pandemic phase, the focus will be on providing the best care for the most people with influenza and minimizing the spread of the disease. A pandemic influenza will affect all aspects of life. Many people will be unable to work due to illness or the need to care for family members. Keeping critical community services and businesses operating throughout the pandemic period will be a challenge.

## Surveillance

To strengthen surveillance, the Viral Watch program will add more physicians to its system and the Office of the Chief Medical Examiner will report on any unusual deaths.

Regional health authorities will report to the government on absenteeism rates, hospital admissions, admissions to intensive care units (ICU), deaths from influenza and from other causes and the number of cases and deaths from pneumonia.

Medical Officers of Health in each regional health authority, Emergency Management Alberta and physicians will receive regular updates on the number of cases of influenza. Alberta Health and Wellness will provide information to physicians, the health care system and Albertans on the progress of the disease and on prevention and care.

#### **Immunization**

It is possible that when an influenza pandemic arrives in Alberta, vaccine may not be immediately available, or may be available in limited quantities. Alberta's plan is to provide vaccine as soon as possible and to immunize as much of the population as possible.

It is also possible that no vaccine will be available in time to respond to a wave of pandemic influenza. If this happens, the focus will be on controlling the spread of the disease, caring for the ill, and emergency response.

The federal government will secure supplies of vaccine and distribute them to provinces and territories on an equitable basis. In the case of a shortage of vaccine, the National Pandemic Influenza Committee has set priorities for which groups of the population will receive the vaccine first. Most likely, priority will be given to the following groups:

- 1. Health care workers, paramedics/ambulance attendants and public health workers.
- 2. Essential service providers, such as police, firefighters, the armed forces and other workers who provide key community services.
- 3. Persons at high risk of severe or fatal outcomes from influenza, such as persons in nursing homes or seniors lodges, those with high-risk medical conditions, people aged 65 or older, infants aged six to 23 months and pregnant women.
- 4. Healthy adults.
- 5. Children aged two to 18 years.

The Government of Alberta will maintain a provincial vaccine depot during the pandemic. It will distribute vaccine to regional health authorities, which will administer it to individuals. Two doses of vaccine will be required, given one month apart.

Alberta Health and Wellness maintains a vaccine adverse event reporting system to monitor vaccine safety. Regional health authorities and physicians will report adverse reactions to influenza vaccinations, and Alberta Health and Wellness will share the information with Health Canada.

## **Health Services**

During a pandemic, demand for health services will exceed the availability of resources. Increased influenza infection will increase the demand for ICU care, ventilators, anti-influenza drugs (referred to as antivirals) and other equipment and supplies. At the same time, health care workers will become ill at the same or higher rates than the rest of the population—15 to 35 per cent of workers may not be available if a pandemic hits Alberta before a vaccine is ready.

Several actions will be taken to cope with this situation:

- Regional health authorities will implement public health control measures to help limit the spread of the disease.
- Hospitals may suspend elective/non-essential health services.
- Regional health authorities will implement triaging, to divide patients into three groups: self-care, outpatient care and hospitalized care.
- Alberta Health and Wellness will revise guidelines for caring for the sick in response to new information from the WHO, Health Canada and medical experts. These revised guidelines will be provided to physicians.

- Regional health authorities will train alternate care deliverers to provide some aspects of care, if necessary due to staff shortages. This may include the use of health care workers in nontraditional roles.
- Alternate care sites will be pre-determined and set up if needed.
- Alternate transportation methods, besides ambulances, will be listed as options and placed on standby.
- Health Canada, if requested by Alberta
  Municipal Affairs, may activate the National
  Emergency Stockpile System (NESS). These
  medical resources are pre-positioned in Alberta
  to enable a better response to disasters or
  emergencies experiencing large numbers of
  casualties. It includes 200-bed field hospitals,
  advance treatment centres, casualty collecting
  units, trauma kits, mini-clinics, mobile feeding
  units and reception centre kits. Needed items
  are boxed and ready to set up.

# **Emergency Preparedness**

Once the arrival of a pandemic influenza in Canada has been confirmed, each regional health authority will notify the municipalities in their region. A municipal Director of Disaster Services, working with the Medical Officer of Health for the regional health authority, will take steps to ensure Regional Pandemic Plans are placed on standby. The maintenance of municipal operations may include but is not restricted to:

- The municipality will inform the public of the municipal response and the steps being taken to maintain public safety and essential services.
- If necessary, the municipality will establish an Emergency Operations Centre.
- To meet the possible need for added staff in key service areas, the municipality will bring forth its up-to-date registry of former and retired personnel and suitable volunteers.

- The regional health authority will advise the municipality about the need for restrictions on travel, community events, school attendance and other gatherings. As per existing legislation, the municipalities will have the ability to declare a "state of local emergency" if necessary and exercise the powers to enforce a list of pre-determined activities necessary to manage such an event.
- The municipality will work with the regional health authorities to set up alternative facilities for immunization or treatment of the sick. If needed, municipalities will provide alternatives to ambulance services to move ill people and transportation to help move needed equipment and supplies.
- Municipalities will work with local Chambers of Commerce to ensure that essential retail operations continue throughout a pandemic. Essential businesses include pharmacies, grocery stores and gasoline and service stations. The municipality may designate other businesses as essential.
- The municipal Director of Disaster Services will activate a pre-determined volunteer support services registry and coordinate volunteer activities.
- The Government of Canada will provide liaison personnel to Municipal Affairs at the operations center for fast access to federal resources when requested by the Government of Alberta.
- Municipalities will be asked to identify suitable locations that could be used for temporary morgues and work with local funeral homes to ensure proper handling of the dead.

## **Communications**

The public, regional health authorities and municipalities will be made aware of measures that may be taken to protect public health.

Physicians and health care workers will receive materials on prevention and clinical care of the ill.

The media, key organizations and associations and members of the public will receive accurate information throughout the pandemic.

- The media will receive regular news releases and updates about immunization, prevention and self-care and the status of public services.
- Federal and other provincial governments will hold teleconferences to keep up-to-date on the progress of the disease and response measures.
- Health and safety workers, physicians and all government workers will receive information updates regularly.

A provincial information call centre will be set up and promoted, to give Albertans access to a reliable source of information. Alberta Health and Wellness will update their Web site continuously.

## **Post-Pandemic Phase**

The post-pandemic phase begins when the number of cases of influenza returns to normal, prepandemic levels. This phase focuses on returning health, municipal and other services to "business as usual", dealing with any service backlogs, assessing the impact of the pandemic and evaluating the pandemic response.

## Surveillance

The surveillance system will return to normal operations. Alberta Health and Wellness and regional health authorities will continue to watch for an unexpected return of the influenza virus.

Alberta Health and Wellness will evaluate the results of surveillance during the pandemic and the operation of the system, to allow improvements for the future.

#### **Immunization**

During the pandemic phase, immunization programs for other diseases may have been delayed. A catch-up period for these will start.

The pandemic immunization program will be evaluated to allow improvements for the future. Information on adverse reactions will be analyzed.

#### **Health Services**

Health services will need to respond to pent-up demand for non-essential health services once a pandemic is over.

Regional health authorities and municipalities will provide support services for families of victims.

## **Emergency Preparedness**

Alberta Municipal Affairs and municipalities both will assess the impact of the pandemic on essential services in their respective areas of concern, and jointly take steps to return business back to normal as soon as possible.

Municipalities, health authorities and the government will dismantle the emergency programs and facilities set up to handle immunization and caring for the sick.

The response to the pandemic will be evaluated, to improve future planning and deal with any issues that may have arisen.

## **Communications**

Alberta Health and Wellness and regional health authorities will continue to promote routine influenza immunization and other measures to prevent infection.

# What should you do during a pandemic?

The Alberta plan outlines what various levels of government and the health system will do during a pandemic. There are things Albertans can do to control the spread of influenza.

During every flu season, even when there is no pandemic, you should:

- If eligible, vaccinate yourself and members of your family against influenza. Regional health authorities provide flu immunization programs every year.
- Cover your mouth when coughing or sneezing, and immediately wash your hands. This helps prevent the spread of infectious diseases, including the common cold and the flu.

If you develop the flu, follow general guidelines to take care of yourself:

- Rest.
- Drink plenty of fluids.
- Take acetaminophen for fever or pain.
- Wash your hands to prevent further spread of the disease.

## During a pandemic:

- Be alert to information on radio and newspapers. Alberta Health and Wellness and your regional health authority will advise you about the availability of immunization and any steps you can take to avoid disease.
- Health professionals will provide care to the very ill and provide information on self-care or caring for family members at home.

Detailed information on pandemic influenza and links to other reliable sources will be available through the Alberta Health and Wellness Web site: www.health.gov.ab.ca.

Albertans can also call the Alberta Connects line at 310-4455, or Alberta HealthLink at 1-866-408-LINK (5465), for more information.